AERMEC

Product Guide 2025

The company

Giordano Riello, founder of Aermec, assisted by his son Alessandro and daughter Raffaella, has solidly associated the Company name with precise values:

Respect for the environment

By using new eco-friendly refrigerants as well as innovative installations using water as the carrier fluid.

Energy saving

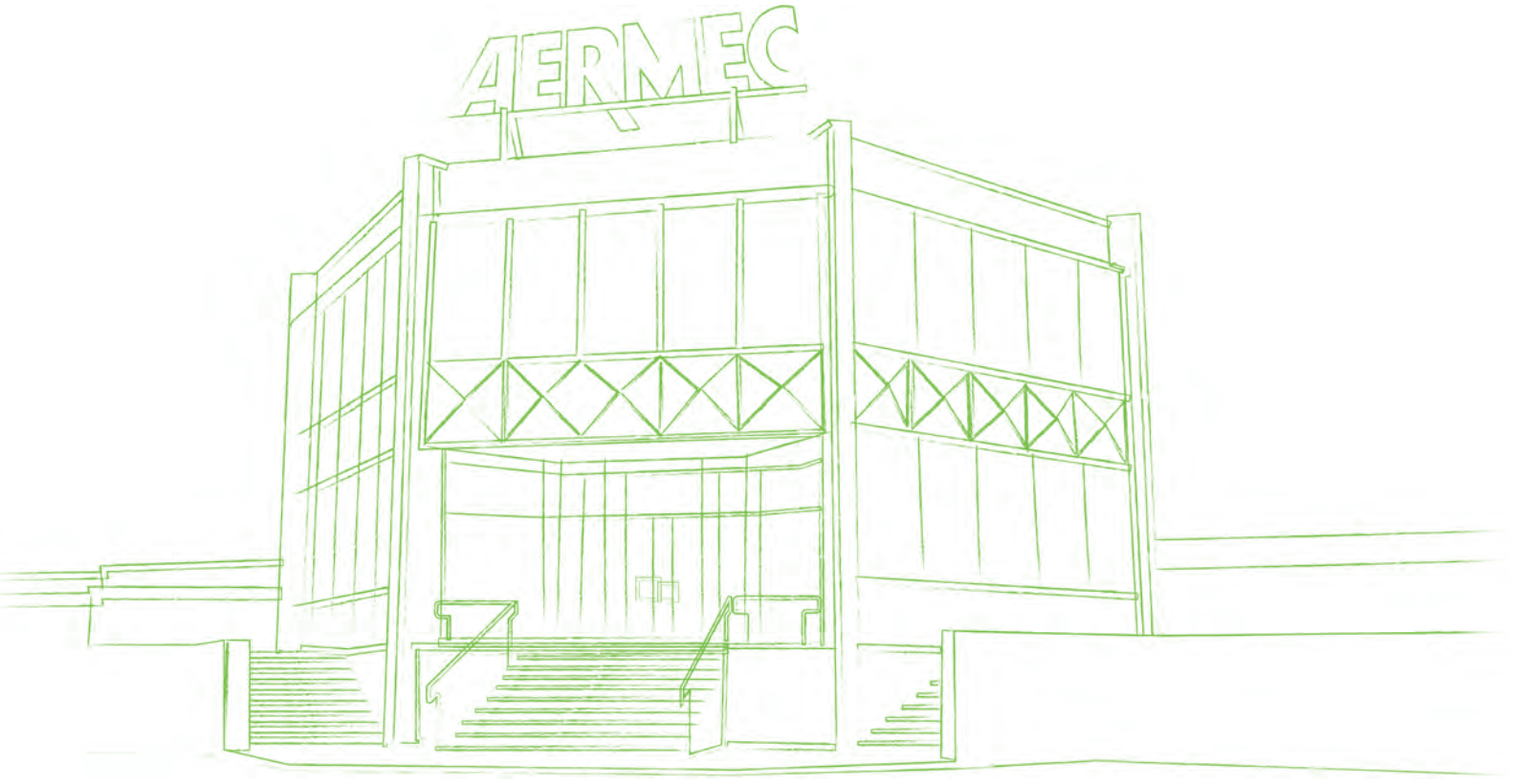
The great challenge of the Third Millennium, with the development of combined heating and air conditioning systems where appliances are used only as and when necessary.

Noise pollution control

With low-noise emission products, which undergo scrupulous testing before being put on the market.

Health care

With special filters that hold back the smallest suspension particles, the Cold Plasma Generator system that guarantees effective air purification (making for a healthier environment), and the new photocatalytic device, this air purification system is ideal for places where the highest degree of hygiene is required.



History

1961
Giordano Riello sets up Riello Condizionatori, initially producing for contractors only. The story begins.

1963
The Aermec brand is born and marks all future company products designed and manufactured on site. The brand name gains a stronghold as a major product name in Italy and throughout Europe.

1970
Aermec can already supply fresh and warm air. Aermec presents the first dual section conditioner: the first "split-system". Fancoil production starts.

1973
Aermec receives European Award Gold Mercury.

1980
The Eighties sees the development of water chillers and air handling units.

1990
The Nineties mark the definitive consolidation of the company on the market. The Aermec brand is associated with advanced technology and high quality design.

1998
The name makes the company. From 1 January Aermec becomes the company name as well as product brand.

2002
Design and technology: Aermec launched Omnia a new generation of fancoils, designed for domestic applications. OMNIA is the result of co operation with a worldwide prestigious designer.

2003
Aermec UK was acquired.

2004
The international market ask for number and Aermec answer. Giordano Riello make the producing system more technogical.

2008
Aermec responds with more and more efficient units to the world challenge of energy saving with a special attention for our environment.

2011
Aermec turns 50. The company has developed and enlarged, always willing to understand and anticipate the needs of the market. Promoter of "integrated design" between designer and architect.

2012
Aermec Polska was acquired.

2015
The news Europe's largest test facility for air conditioning applications was inaugurated.

2017
Aermec receives Innovation Award from the US Organizations ASHRAE, AHRI and AHR. Aermec receives "Prime Company" certificate for the economic strength and commercial reliability from the Dun & Bradstreet. Aermec Deutschland was acquired.

2018
Aermec awards first prize in "RAC Cooling Industry Award 2018" in London by an Internationally qualified Jury.

2019
Aermec receives the prizes:"NATIONAL ACR & HEAT PUMPS AWARDS 2019" in the category of Data Centre Rooftop Chiller installation, "H&V News Awards 2019" attributed by a HVAC technical jury the United Kingdom.

2020
For the second year in a row, Aermec receives the prize ACR NEWS AWARDS for Data Centers category in the UK.

2021
Aermec turns 60.
Aermec's 60th anniversary coincides with
the Covid 19 pandemic.
The company opens a vaccination hub available not only to its own employees but to the entire population of the area.

2022
Aermec breaks through the barrier of 300 million turnover. The Raffaello Riello Research and Training Centre was inaugurated on 12 May.

2023
Founder Giordano Riello leaves us on May 14.

2024
The Spanish companies Airlan and Airlan Industrial were acquired. The holding company Aermec North America that controls Aermec USA and Aermec Canada for the distribution of products in the North American continent was established.

LOGO INDEX:

CERTIFICATIONS:

CE marking

REFRIGERANT:

R290 refrigerant

R32 refrigerant

R1234ze refrigerant

R134a refrigerant

R410A refrigerant

XP10 refrigerant

OPERATIONAL TYPES:

Evaporating unit

Cooling and heating

Cooling only

DHW

Condensing unit

Free-Cooling

Heating only

Multipurpose

For four pipes plants

For three pipes plants

For two pipes plants

INSTALLATION TYPES:

Cassette installation

Ceiling installation

Ducted installation

Floor installation

Wall installation

Air indoor unit

Air outdoor unit

Water indoor unit

KINDS OF EXCHANGERS :

Heat recovery

Plate exchanger

Pump kit

Shell and tube exchanger

Water tank

KINDS OF COMPRESSORS:

Centrifugal compressor

Inverter centrifugal compressor

Rotary compressor

Inverter rotary compressor

Scroll compressor

Inverter scroll compressor

Twin screw compressor

Inverter twin screw compressor

KINDS OF FANS:

Axial fan

Inverter axial fan

Centrifugal fan

Inverter centrifugal fan

EC fan

Inverter EC fan

Plug fan

Inverter plug fan

EXTRA:

Inverter device

Compatible with ModBus protocol

Cold Plasma device

Touch control

Compatible with VMF system (Variable Multi Flow)

EUROVENT CERTIFIED PERFORMANCE
AHU N° 04.04.052
Range NCD
www.eurovent-certification.com

Aermec is one of the companies belonging to Giordano Riello International Group and takes part to Eurovent programme for NCD series.

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Aermec takes part to EUROVENT Programmes: FCH - FCHP for fan coil series.
Aermec is involved in EUROVENT Programme: LCP for chiller range.
The products involved appear on the website www.eurovent-certification.com

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INDEX

	HEAT RECOVERY UNITS		Air flow rate (m3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	RPS	Counter-current flow heat recovery unit with inverter motor	800	-	-	224
	REPURO	With cross-flow exchanger	100-650	-	-	229
	TRS	Heat recovery unit with enthalpy exchanger	250-1300	-	-	235
	RPLI	Counter-current flow heat recovery unit with inverter motor	200-3900	-	-	237
	RTD	Thermodynamic recovery unit with integrated heat pump	1100-3200	-	-	242
	RPF	High performance heat recovery unit with cross-current recuperator	790-4250	-	-	246
	URX-CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	250
	URHE-CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	254
	ERSR	High-efficiency heat recovery with rotary recovery unit	1000-30000	-	-	258

	AIR HANDLING UNITS		Air flow rate (m3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Compact air handling units					
	TVS	Air flow rate 800÷5200 m^3/h	800-5200	4,40-27,80	10,50-66,40	264
	TVH	Air flow rate 800÷5200 m^3/h	800-5200	4,70-29,30	11,60-73,90	273
	TS	Air flow rate 810÷4225 m^3/h	810-4225	4,39-24,93	8,89-52,44	282
	TA	Air flow rate 800÷5000 m^3/h	800-5000	4,2-39,6	3,9-72,8	286
	TN	Air flow rate 3000÷23000 m^3/h	3000-23000	12,6-127,8	14,7-277,3	291
	Modular air handling units					
	NCD	Air handling units	1134-79475	-	-	298
	SPL 025-130	For wellness areas	4000-13000	-	-	301
	SPL 160-250	For wellness areas	16000-25000	-	-	305
	Packaged ROOF-TOP units					
new	RTG 060X-125X	For medium crowding applications	-	57,7-128,1	58,1-124,6	308
	RTX N1-N8	For medium crowding applications	-	12,70-49,95	13,50-50,79	314
	RTX 09-16	For medium crowding applications	-	50-135	49-141	319
	RTX 17-23	For medium crowding applications	-	151-307	152-310	325
	RTY 01-10	For high crowding applications	-	30,2-133,6	29,3-137,9	330

	ROOM AIR CONDITIONERS		Air flow rate (m3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Monobloc					
	FK	Monobloc window	-	2,7-3,6	-	912
	CMP (COMPACT)	Monobloc without outdoor unit	-	2,35	2,36	915
new	PST	Portable air conditioner	-	3,5	2,9	918
	Monosplit					
	SPG	Monosplit	-	2,5-6,2	2,8-6,5	921
	SGE	Monosplit	-	2,8-5,9	2,9-6,0	926
	SCG_1	Monosplit	-	7,2-12,5	7,9-14,5	930
	CKG	Monosplit	-	2,7-6,6	2,9-6,8	934
	LPG	Monosplit	-	3,5-16,0	4,0-17,0	940
	MVAS	Monosplit high head duct	-	22,4-28,0	24,0-30,0	949
	Multisplit					
	MPG	Multisplit	-	4,1-12,1	4,4-13,0	952
	MGE	Multisplit		4,1-7,9	4,4-8,2	969
new	MGEHW	Multisplit	-	7,91	8,21	979

BIM

Building Information Modeling

3D digital information system

- **Easy and intuitive downloading**
- **RFA (Autodesk Revit Family File) format**



DESCRIPTION

Aermec BIM models contain information that is useful in the MEP plant design phase. BIM technology offers multiple advantages such as: greater efficiency and productivity, fewer errors, lower costs, greater interoperability, maximum sharing of information, more timely and consistent control of units, overcoming the inefficiencies and inaccuracies of the design method that traditionally characterises conventional professional practices, allowing for full integration between the design and execution phases.
Search and download HVAC products for heating, ventilation and air conditioning. Browse the library of BIM families to select the products to be used in your project.

FEATURES

Aermec BIM models contain the following information:
— Performance in heating and cooling mode data
— Energy data
— Electrical data
— Sound data
— Features of the hydraulic connections
— Construction features
— Dimensional data

COMPATIBILITY

Aermec BIM models are downloadable in rfa (Autodesk Revit Family File) format and on request also in .ifc interchange format to ensure maximum compatibility with all BIM software.

MODELS AVAILABLE

— Fan coils
— Recovery units
— Air treatment units
— Air-to-water chillers and heat pumps
— Freecooling air/water chillers
— Water-to-water chillers and heat pumps
— Multipurpose
— Rooftop

By scanning the QR code below you can access the AERMEC download area where you can select and download the desired unit:

HEAT RECOVERY UNIT

Objective air quality and energy saving: Aermec offers a large range of air-air heat recovery units for industrial and commercial systems and for Controlled Mechanical Ventilation Systems for residential.
The heat recovery units, provided with appropriate accessories (heat exchange coils, heat pump refrigerant circuit, etc.), actively participate in the air treatment providing an important contribution to the air conditioning of the spaces served.
The catalogued range of nominal available air flow rates is from 100 to around 16.100 m^3/h.

HEAT RECOVERY UNITS		Air flow rate (m3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
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RPS

Counter-current flow heat recovery unit with inverter motor

Nominal air flow rate 800 m³/h

- **VMC solution for classrooms, bars, restaurants, offices, hotels, shops**
- **Minimum air flow rate 800 m³/h**
- **Fully silent operation**
- **Ventilation management by VOC probe**
- **Photocatalytic device**



DESCRIPTION

RPS is a counter-current heat recovery unit ideal for retrofit solutions for classrooms, offices, hotels, bars, restaurants, shops. With versatile installation and compact dimensions, it can be adapted to any existing space by drilling just two 300mm holes in one of the perimeter walls of the building, thus avoiding outside air ducts.
Thanks to the high thermal efficiency of the heat recovery unit, the appropriately filtered and treated fresh air is introduced at a temperature close to that of the room.

VERSIONS

RPS800A: With rear external air inlets and upper air delivery
RPS800B: With side external air inlets and upper air delivery

FEATURES

Structure

The external metal casing is treated with RAL9003 anti-corrosion polyester paint and insulated internally with a 12mm thick high sound-absorbing mattress with low thermal conductivity.
The natural anodised aluminium delivery air distribution grille is adjustable. The stale air is suctioned through special micro-punched grilles directly in the unit casing.

Ventilation group

The ventilation unit consists of fan plug fans with rear-facing blades and a directly coupled Ec-type electric motor.
The use of fan plug fans reduces the power input compared to fans with front-facing blades.

Heat exchanger

Plate heat exchanger with counter-current flow.

Condensate drip

The aluminium condensate drip tray is thermally insulated and must be connected to a condensate discharge system.

Air filtration

As standard the fresh air is filtered through an ePM1 50% filter in accordance with ISO 16890 (F7 in accordance with EN 779).
As standard the exhaust air is filtered through an ePM10 50% filter in accordance with ISO 16890 (M5 in accordance with EN 779).

For version A only, other Coarse 30% filters in accordance with ISO 16890 (G2 in accordance with EN 779) are fitted to the outside air vents to protect the unit from large components such as pollen, leaves and insects. The filters are easily accessible for maintenance and cleaning.

Air sanitisation

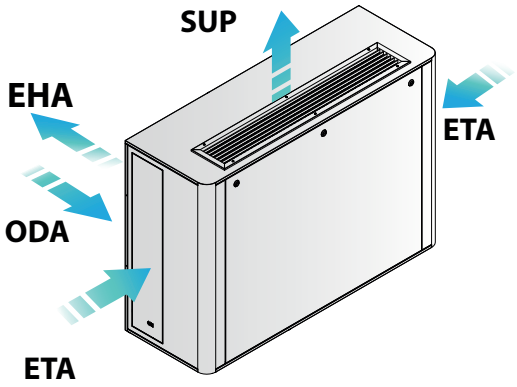
As standard, the fresh air flow has a latest-generation device with a photo-catalytic UV lamp for active sanitisation.
The hydrogen peroxide produced by the photo-catalytic reaction, disseminated and carried by the air flow, makes this sanitisation action effective on the surfaces of the unit as well as in the air in the place of installation and by contact with the surfaces of the rooms treated.

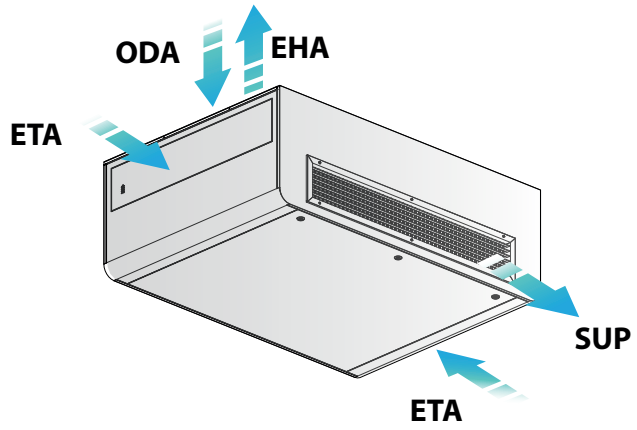
Regulation

The power is supplied through the control board positioned on the inside panel of the heat recovery unit.
The unit is managed by a microprocessor control card and is controlled by the ultra-thin, flush-mounted control panel, which controls the functions from a capacitive touch screen with an LCD display.
The main adjustment functions are as follows:
— Manual fresh and exhaust air ventilation speed control
— Fresh and exhaust air ventilation speed control according to the air quality (by VOC probe)
— Freecooling
— Heat recovery unit anti-freeze function
— Ambient air cleaning function
— Photo-catalytic device management
— ON/OFF from digital input
— Management via RS485 serial with Modbus RTU protocol

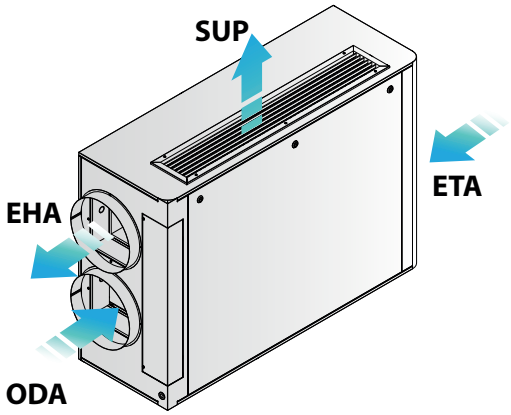
POSSIBLE INSTALLATIONS

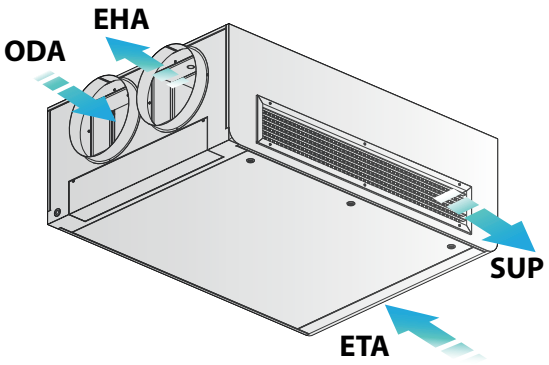
RPS800A





RPS800B





ODA = External air
ETA = Extracted air
SUP = Air introduced
EHA = Exhaust air

ACCESSORIES

AVM: Anti-vibration supports.

KVOC: The kit consists of the VOC probe, the 230V/24V power supply and cables for connecting the VOC probe, power supply and controller.

ACCESSORIES COMPATIBILITY

VOC probe kit

Accessory	RPS800A	RPS800B
KVOC800	•	•

Antivibration

Accessory	RPS800A	RPS800B
AVM	•	•

The accessory is not required for horizontal installation.

PERFORMANCE SPECIFICATIONS

SIZE			RPS800
Power supply			230V ~ 50Hz
Unit type			UVNR - UVB (Non-residential 2-way ventilation unit)
Nominal/maximum fresh air rate		m3/h	800
Nominal/maximum exhaust air rate		m3/h	750
Heat recovery system type			Statico a flussi controcorrente
Winter thermal efficiency	(1)	%	81
Heat capacity recovered in winter	(1)	kW	4,4
Summer thermal efficiency	(2)	%	77
Heat capacity recovered in summer	(2)	kW	1,9
Maximum electric input power		kW	0,300
Sound power L_wA		dB(A)	59,0
Fans			
Type			Plug fan EC
Number			1+1
Filters			
Fresh air filter			EPM1 50% (F7)
Exhaust air filter			EPM10 50% (M5)

(1) Fresh air: Tbs = 0°C; RH = 80%; Exhaust air Tbs = 20°C; RH = 50%; nominal air flow rate
(2) Fresh air: Tbs = 35°C; RH 50%; Exhaust air Tbs = 26°C; RH = 50%; nominal air flow rate

ROOM VENTILATION AIR FLOW RATES

School classrooms

For the calculation of the ventilation rate in school classrooms, reference can be made to the UNI 10339 standard (which sets the air renewal flow rate per student and by type of institution) and to Decree No. 81 of 20/03/2009 (which establishes the minimum and maximum number of students per class and by type of institution).

	UNI10339 - Sheet 3	Presidential decree no. 81 of 20/03/2009		Fresh air rate		Max occupants (fresh air rate 800 m3/h)
	Air flow rate per person	Pupils per class				Persons
	M3/h per person	Min	Max	Min	Max	No.
Schools						
Nursery school	14	18	29	259	418	56
Primary school	18	15	27	270	486	44
Middle school	22	18	30	389	648	37
High school	25	27	30	680	756	32

Bar, restaurants, officies, hotels, shops or stores

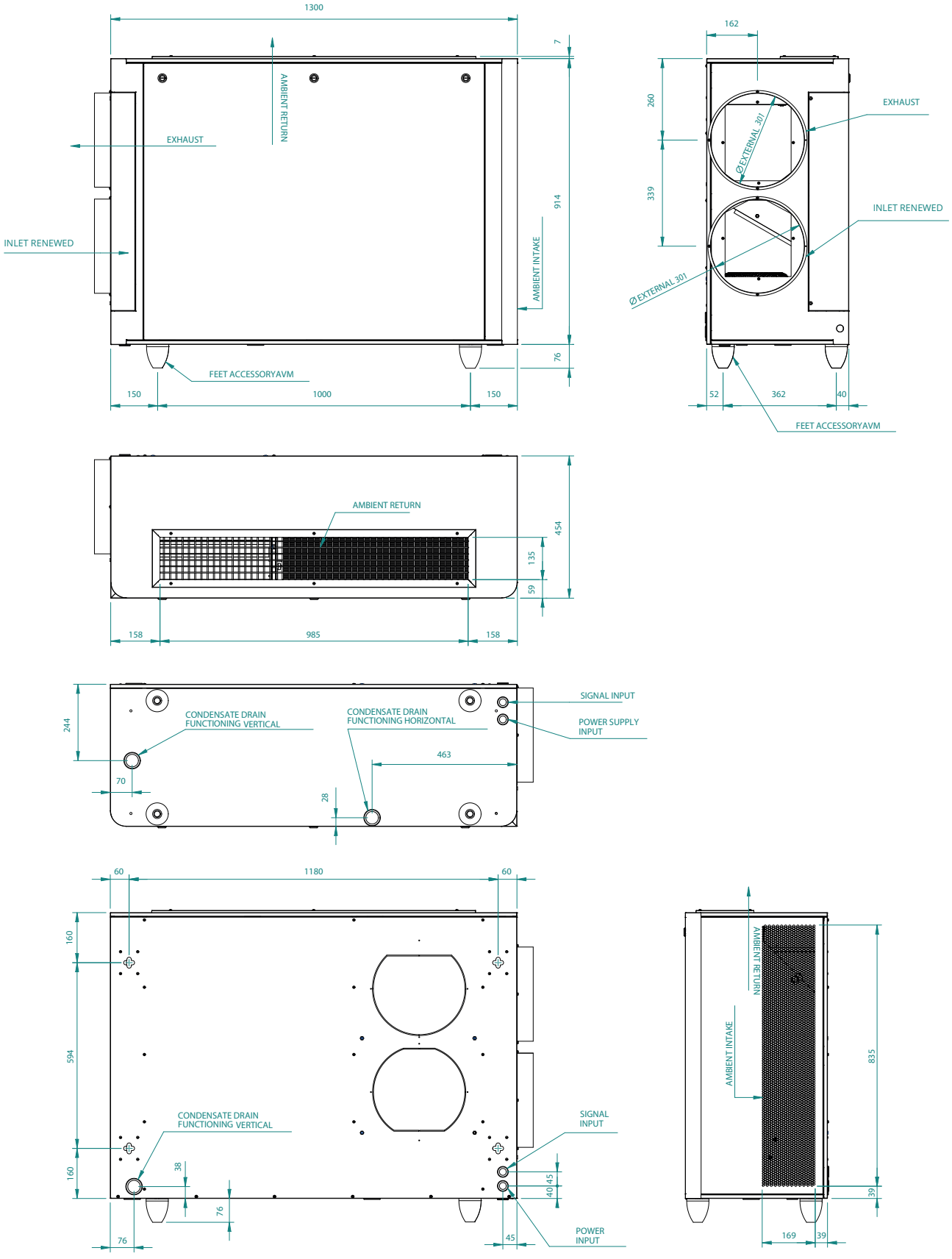
For the calculation of the ventilation rate in other types of buildings, reference can be made to the UNI 10339 standard, which sets the air renewal flow rate per person based on the type of indoor space.

	UNI10339 - Sheet 3	Max occupants (fresh air rate 800 m3/h)
	Air flow rate per person	Persons
	M^3/h per person	No.
Bars, Restaurants		
Bar	40	20
Dining rooms restaurants	36	22
Offices		
Open space offices	40	20
Hotels		
Hall, lounges	40	20
Dining rooms	36	22
Shops		
Beauty salons	50	16
Stores	41	19

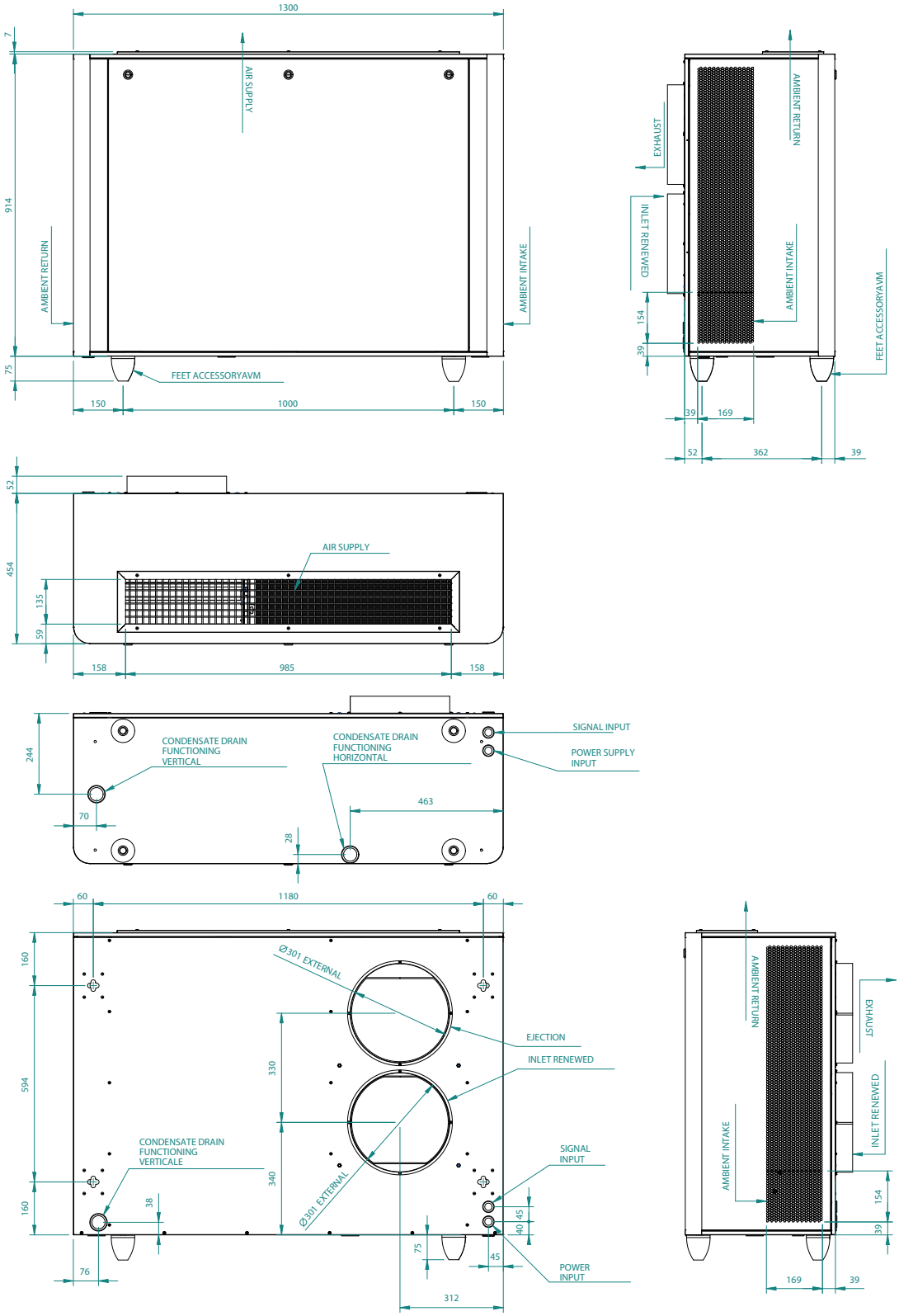
N.B.: the values given are indicative, assess the correct VMC sizing during the design phase.

DIMENSIONS

RPS800B



RPS800A



		RPS800A	RPS800B
Dimensions and weights			
Empty weight	kg	116	120

Aermec reserves the right to make any modiÿcations deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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REPURO

Duct-type residential 2-way ventilation unit with heat recovery

- **Compact dimensions**
- **High efficiency, reaching 90%+ (UNI EN 308)**
- **Cold Plasma purifier**



DESCRIPTION

REPURO it's an innovative counter-current heat recovery system that ensures the right air renewal in closed areas.
Thanks to the use of high-efficiency heat exchangers, REPURO allows fresh air to be delivered at a temperature close to that of the room itself, thereby cutting the energy costs that would be incurred with a traditional air renewal system or mechanical ventilation alone.

VERSIONS

. Standard
R With electric heater
Installation:
— **Ceiling or wall**: (100 - 170)
— **Floor or wall**: (250 - 650)

FEATURES

— Hexagonal heat recovery unit with a wider heat exchange surface;
— Free-standing sheet metal panels with internal insulation;
— Standard G4 filter on the fresh air;
— Standard G2 filter on the exhaust air;
— The filters can be removed for cleaning or replacement;
— The unit has in-built protection against frost formation with temperatures > -10°C;
— High efficiency, reaching 90%+ (UNI EN 308);
— Free cooling in the intermediate seasons, thanks to the automatic bypass function (not available for sizes 100 - 170);
— "No frost" bypass (RePuro 450-550-650), with PLSNF accessory;
— Air purification guaranteed by the Cold Plasma purifier: this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionised air, free of foul odours;
— Nominal flow rate regulation from 0 to 100%;
— Centrifugal fans, directly coupled with the EC high-efficiency brushless electric motors with variable speed (ERP2015);
— Microprocessor control card that interfaces with the VMF system;
— Unit control by means of a wired panel (supplied as standard) with an innovative, extremely thin design. The functions are controlled via the capacitive touch keypad with an LCD display. Electric heater activation in the RePuro_R versions. Light grey front panel PANTONE COOL GRAY 1C;
— The 6-metre wired cable is provided as standard;
— Easy mounting on the wall (with the plate (provided), or on the floor (with the AVM accessory);
— Can adapt to an existing system;
— Compact dimensions;
— Silent operation;
— Filter change warning;
— Installation requires a condensate discharge system.

ACCESSORIES

VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings.
BC: Condensate drip.
AVM: Anti-vibration supports.
SSR: Wall mounting kit
FF7: Filter with F7 efficiency class for the fresh air.
BMConverter: The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACNet TCP-IP protocol.
KSAE: External air sensor.
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

Plenum with multi-way flange

PLS350: Vacuum delivery plenum with sound-absorbent covering and multi-way flange.
PLS350E: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.

PLS350L: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.
PLS350LE: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.
PLS350W: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.
PLS350WE: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLS350WL: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLS350WLE: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.
PLS650: Vacuum delivery plenum with sound-absorbent covering and multi-way flange.
PLS650E: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.
PLS650L: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.
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Plenum with 1-way flange

PLSM350: Vacuum delivery plenum with sound-absorbent covering and 1-way flange.
PLSM350E: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.
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PLSM350WLE: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.
PLSM650: Vacuum delivery plenum with sound-absorbent covering and 1-way flange.
PLSM650E: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.
PLSM650L: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.
PLSM650LE: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.
PLSM650W: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.
PLSM650WE: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLSM650WL: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLSM650WLE: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

VMF system

VMF-E5B: White recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.
VMF-E5N: Black recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.
VMF-VOC: Air quality detection accessory.

ACCESSORIES COMPATIBILITY

Model	Ver	100	170	250	350	450	550	650
BMConverter	.,R	•	•	•	•	•	•	•
KSAE	.,R	•	•	•	•	•	•	•
VMF-CRP	.,R	•	•	•	•	•	•	•

Plenum with multi-way flange

Model	Ver	100	170	250	350	450	550	650
PLS350	.	•						
PLS350E	.	•						
PLS350L	.	•						
PLS350LE	.	•	•	•	•			
	R	•	•	•				
PLS350W (1)	.	•						
PLS350WE (1)	.	•						
PLS350WL (1)	.	•						
PLS350WLE (1)	.	•						
PLS650	.,R					•	•	•
PLS650E	.,R					•	•	•
PLS650L	.,R					•	•	•
PLS650LE	.,R					•	•	•
PLS650W (1)	.,R					•	•	•
PLS650WE (1)	.,R					•	•	•
PLS650WL (1)	.,R					•	•	•
PLS650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve.

Water valves

3 way valve kit

Ver	100	170	250	350	450	550	650
., R	VCH	VCH	VCH	VCH	VCH	VCH	VCH

2 way valve kit

Ver	100	170	250	350	450	550	650
., R	VCHD	VCHD	VCHD	VCHD	VCHD	VCHD	VCHD

Installation accessories

Condensate drip

Model	Ver	100	170	250	350	450	550	650
BC10 (1)	.,R	•	•	•	•	•	•	•
BC20 (2)	.,R	•	•	•	•	•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Anti-vibration support feet

Ver	100	170	250	350	450	550	650
., R	-	-	AVM	AVM	AVM	AVM	AVM

The accessory cannot be fitted on the configurations indicated with -

Wall mounting kit

Ver	100	170	250	350	450	550	650
., R	-	-	SSR	SSR	SSR	SSR	SSR

The accessory cannot be fitted on the configurations indicated with -

External air sensor

Ver	100	170	250	350	450	550	650
., R	BMConverter	BMConverter	BMConverter	BMConverter	BMConverter	BMConverter	BMConverter

Accessories

Plenum with multi-way flange

Model	Ver	100	170	250	350	450	550	650
PLS350	.	•						
PLS350E	.	•						
PLS350L	.	•						
PLS350LE	.	•	•	•	•			
	R	•	•	•				
PLS350W (1)	.	•						
PLS350WE (1)	.	•						
PLS350WL (1)	.	•						
PLS350WLE (1)	.	•						
PLS650	.,R					•	•	•
PLS650E	.,R					•	•	•
PLS650L	.,R					•	•	•
PLS650LE	.,R					•	•	•
PLS650W (1)	.,R					•	•	•
PLS650WE (1)	.,R					•	•	•
PLS650WL (1)	.,R					•	•	•
PLS650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve.

Plenum with 1-way flange

Model	Ver	100	170	250	350	450	550	650
PLSM350	.,R	•	•	•	•			
PLSM350E	.,R	•	•	•	•			
PLSM350L	.,R	•	•	•	•			
PLSM350LE	.,R	•	•	•	•			
PLSM350W (1)	.,R	•	•	•	•			
PLSM350WE (1)	.,R	•	•	•	•			
PLSM350WL (1)	.,R	•	•	•	•			
PLSM350WLE (1)	.,R	•	•	•	•			
PLSM650	.,R					•	•	•
PLSM650E	.,R					•	•	•
PLSM650L	.,R					•	•	•
PLSM650LE	.,R					•	•	•
PLSM650W (1)	.,R					•	•	•
PLSM650WE (1)	.,R					•	•	•
PLSM650WL (1)	.,R					•	•	•
PLSM650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve; if you intend to use the system with post heating battery, or in any case in all those cases in which the air temperature in the channels could cause condensation on the external surfaces of the pipes, it is mandatory to adequately isolate the components of the system.

VMF system

Model	Ver	100	170	250	350	450	550	650
VMF-E5B	.,R	•	•	•	•	•	•	•
VMF-E5N	.,R	•	•	•	•	•	•	•
VMF-VOC	.,R	•	•	•	•	•	•	•

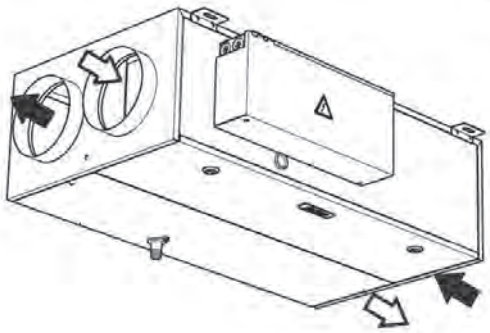
PERFORMANCE SPECIFICATIONS

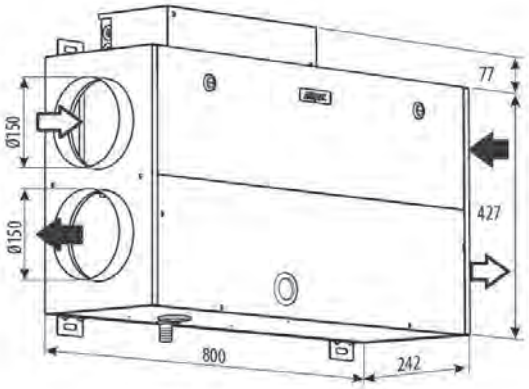
Size		100 (1)	170 (1)	250 (2)	350 (2)	450 (2)	550 (2)	650 (2)
Heat recovery unit								
Power supply					230V ~ 50Hz			
Summer recovery (3)								
Recovery efficiency	%	90	85	86	82	83	81	78
Recovered heating power	W	180	289	430	573	750	887	1015
Winter recovery (4)								
Recovery efficiency	%	94	91	91	89	90	88	87
Recovered heating power	W	957	1573	2329	3171	4118	4940	5734
General data								
SEC	kWh/(m^{2}a)	-36	-38	-37	-40	-40	-40	-40
CLASS					A			
Total input power	W	45	65	160	180	220	280	360
Heat recovery unit performance								
Nominal air flow rate	m^3/h	100	170	250	350	450	550	650
High static pressure	Pa	85	20	195	133	100	120	70

(1) Ceiling or wall installation
(2) Floor or wall installation
(3) Exhaust air temperature 26°C D.B., 50% R.H; Fresh air temperature 32°C D.B., 50% R.H.
(4) Exhaust air temperature 20°C D.B., 50% R.H; Fresh air temperature -10°C D.B., 80% R.H.

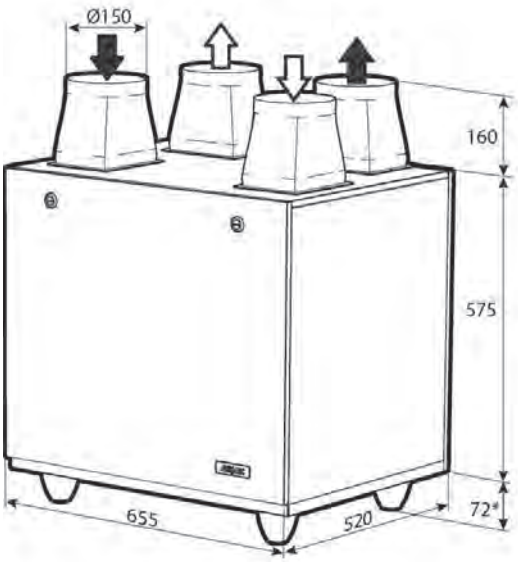
DIMENSIONS (MM) AND WEIGHTS

RePuro 100 - 170

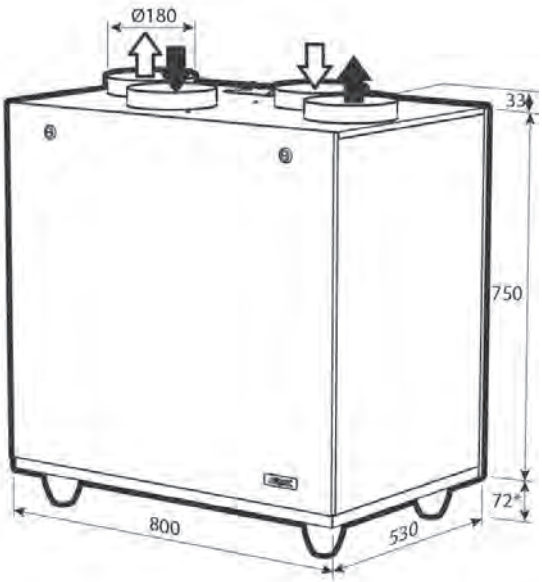


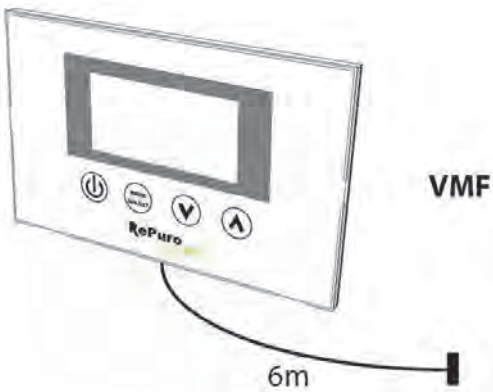


RePuro 250 - 350



RePuro 450 - 550 - 650





VMF - E4 RePuro

Size			100 (1)	170 (1)	250 (2)	350 (2)	450 (2)	550 (2)	650 (2)
Dimensions and weights									
Empty weight	.,R	kg	25	25	48	48	55	55	55

(1) Ceiling or wall installation
(2) Floor or wall installation

RePuro Distribution

A complete range for air distribution which, combined with the innovative RePuro heat recovery and air purification units, provides designers, installers and users with an efficient, practical installation solution that guarantees optimum comfort throughout the lifecycle of the system.

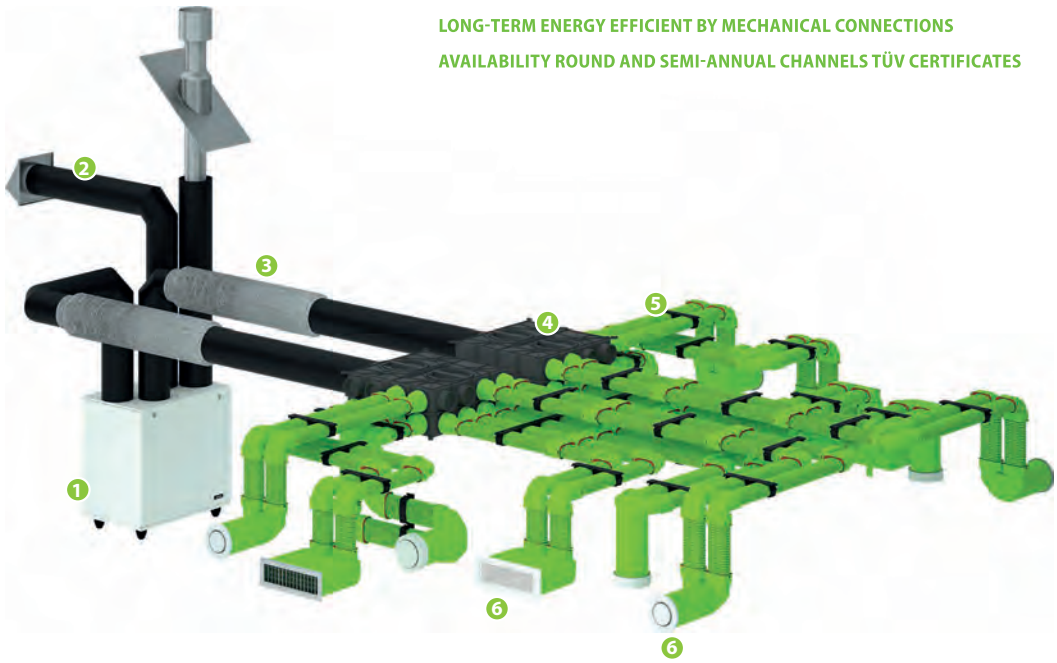
EASY "PLUG & PLAY" INSTALLATION

LOW DUCT HEIGHT FOR IN-WALL AND SCREED-FLOOR APPLICATION

ANTI-STATIC AND ANTI-BACTERIAL PROPERTIES

LONG-TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS

AVAILABILITY ROUND AND SEMI-ANNUAL CHANNELS TÜV CERTIFICATES



The picture is intended purely as an example of a system with semi-rigid, semi-oval, antibacterial ducts. This example consists of:

1 RePuro heat recovery units
2 Duct with fresh/exhaust air intake
3 Interconnection between RePuro and the distribution box
4 Hydronic box
5 Air distribution with semi-rigid, semi-oval, antibacterial ducts
6 Terminals with designer intakes or grilles

In addition to point 5, the Aermec range also includes a further 2 air distribution systems:

— Air distribution with semi-rigid, round ducts
— Air distribution with rigid, rectangular ducts

For more information about all the types and solutions available, refer to the "AerDistribution" selection program and the technical documentation, both available at www.aermec.com

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TRS

Heat recovery unit with enthalpy exchanger

- **Compact dimensions**
- **Fans coupled to brushless Ec motors with low energy consumption**
- **Easy installation**
- **Horizontal installation**



DESCRIPTION

The TRS heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
TRSintends to solve these problems using a static heat recovery unit that saves most of the energy that would otherwise be lost.
The unit adopts high-efficiency heat recovery with countercurrent flows which consists of flat sheets of special paper that allow you to recover both sensible and latent heat (humidity). Therefore, no condensate drip tray or the relative drain pipe is required.
The high static pressures available allow ducts to be mounted, thereby allowing the extraction or input of air across multiple environments simultaneously.
They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

FEATURES

— Very compact units that can only be installed horizontally, which require simple maintenance of the heat exchanger and filters both removable from the side.
— Free-cooling in mid-season thanks to the automatic by-pass function;
— Centrifugal fans with Brushless EC motor, with the possibility to adjust the speed on 10 different levels through the obligatory accessory TRSPTS1, touch screen control panel. In the absence of this accessory it will only be possible, by acting on the remote on-off contact, to operate the fans always at maximum speed;
— Built-in electrical panel with electronic board for the control of ventilation and free-cooling functions;
— Hexagonal-shaped enthalpy recovery unit to increase the exchange surface;
— Self-supporting panels in galvanized sheet with insulation, both internal and external. Access via the side door;
— ISO 16890 ePM$_{25}$ 95% efficiency class filter with synthetic cleanable media and COARSE 50% pre-filter on fresh air, COARSE 50% filter on return air intake;
— Pressure switch with integrated dirty filter signal;
— Connections to funnels with plastic fittings;
— Silent operation;
— The installation does not require a condensate drain system.

ACCESSORIES

The following accessories are available for complete control of the TRS recovery units:
TRSPTS1: Control panel with Touch Screen. Mandatory accessory.
TRSQSW: Wall CO2 probe.
TRSUSW: Wall humidity probe.

ACCESSORIES COMPATIBILITY

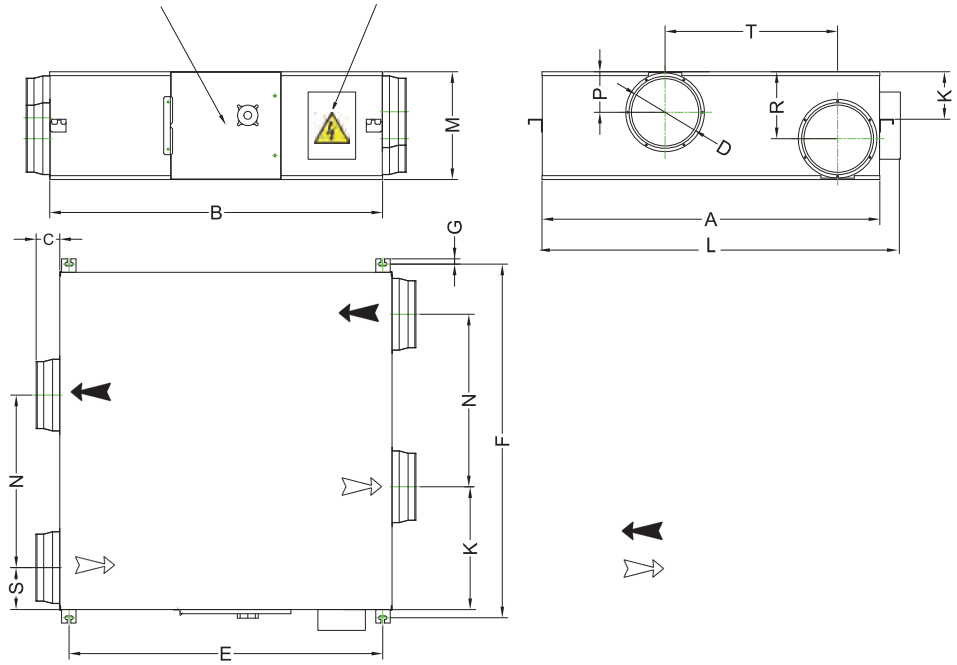
Accessory	TRS252	TRS352	TRS502	TRS652	TRS802	TRS1002	TRS1302
TRSPTS1	•	•	•	•	•	•	•
TRSQSW	•	•	•	•	•	•	•
TRSUSW	•	•	•	•	•	•	•

PERFORMANCE SPECIFICATIONS

		TRS252	TRS352	TRS502	TRS652	TRS802	TRS1002	TRS1302
Fans (1)								
Nominal air flow rate	m^3/h	250	350	500	650	800	1000	1300
Nominal useful head	Pa	90	140	110	100	140	140	140
Maximum input power	A	0,5	0,6	0,6	1,2	1,4	2,1	2,7
Type	type				EC			
Speed number	no.	10	10	10	10	10	10	10
SFP int.	$W/(m^3/s)$	812,00	670,00	547,00	846,00	865,00	881,00	873,00
Maximum input power	kW	0,08	0,13	0,15	0,23	0,32	0,39	0,50
Sound data (2)								
Sound pressure level (1 m)	dB(A)	34,0	37,0	39,0	40,0	42,0	43,0	44,0
Heating performances (3)								
Winter thermal efficiency	%	73,0	74,0	76,0	74,0	76,0	76,0	74,2
Enthalpy winter efficiency	%	65,0	65,0	67,0	65,0	65,0	62,0	59,0
Cooling performances (4)								
Summer thermal efficiency	%	73,0	74,0	76,0	74,0	76,0	76,0	74,0
Summer enthalpy efficiency	%	62,0	62,0	63,0	60,0	63,0	60,0	58,0
Heat recovery unit								
Dry heating efficiency (5)	%	73,0	74,0	76,0	74,0	76,0	76,0	74,0
Power supply					230V~50Hz - 60Hz			

(1) Performances referring to clean filters
(2) Sound pressure level assessed at 1m from suction / discharge ports and the inspection side at nominal conditions in free field.
(3) Recovery air 20 °C 50%; External air 5 °C 80%.
(4) Recovery air 26 °C 50%; External air 34 °C 50%.
(5) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.

DIMENSIONS AND WEIGHTS



Model	Dimension / [mm]																Net weight / Gross weight [kg]
	A	B	C	D	E	F	G	L	T	K	M	N	P	R	S	Y	
TRS252	599	814	100	150	675	657	19	650	315	111	270	315	111	111	142	142	30/33
TRS352	804	814	100	150	675	862	19	855	480	111	270	480	111	111	162	162	37/41
TRS502	904	894	107	200	754	960	19	955	500	135	270	500	135	135	202	202	43/47
TRS652	884	1186	85	250	1115	940	19	945	428	170	388	428	170	170	228	228	65/70
TRS802	1134	1186	85	250	1115	1190	19	1200	678	170	388	678	170	170	228	228	71/76
TRS1002	1216	1199	85	250	1130	1273	19	1290	621	171	388	621	146	241	151	442	83/88
TRS1302	1216	1199	85	250	1130	1273	19	1290	621	171	388	621	146	241	151	442	83/88

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RPLI

Counter-current flow heat recovery unit with inverter motor

- **Compact dimensions**
- **EC fan Plug-fan**
- **Versions with water coil or electric for the post-heating**
- **Horizontal installation**



DESCRIPTION

The RPLI heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
The unit is equipped with a counter-current heat recovery unit and allows an effective heat exchange between the expulsion air flow and fresh air that is pre-heated or pre-cooled, depending on the season, thus saving the energy that would otherwise be lost with the expelled exhaust air.
They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

VERSIONS

Horizontal installation:
RPLI (L o P): L low , P high, useful static pressure
RPLI_E: With electric heating coil.
RPLI_W: With water coil:Cooled / hot
Also to be used with cooled water:
— For sizes 030-100 in flow orientation 1 (°);
— Sizes 070-100 with flow orientation 2 (X), **in this configuration, the coil is not available for sizes 030-050;**
The following can only be used with hot water:
— **Sizes 140-400 with any type of flow configuration (° and X).**

FEATURES

— Plug-fan radial fan with EC motors;
— **Aluminium plate counter-current flow heat recovery unit with heating efficiency in compliance with the European regulation 1253, housing in condensate collection basin;**
— **Ventilation by-pass of the external air flow equipped with internal damper, with free cooling and even anti-freeze function;**
— **Synthetic filter class M5 according to EN779 placed on the expelled air intake;**
— **Synthetic filter class F7 according to EN779 placed on the external air inlet;**
— Filters fouling pressure switches assembled;
— Self-supporting sandwich panels in galvanised sheet metal with injected polyurethane insulation density 45 kg/m^3 and a thickness of 25 mm. The polyurethane is in compliance with the standard UL 94 class HBF and the panel with the standard NF P 512: 1986 in class M1;
— Condensate collection basin in galvanised steel;
— Easy accessible fans, from bottom for the sizes 030-100, from the side for the sizes 140-400;
— Accessible filters, from the top and from the bottom for the sizes 030-100, from the side for the sizes 140-400;
— The fan can be controlled with a 0-10 Vdc controller, RVC or RVCL accessory.

ACCESSORIES

Regulation

HRB: Electrical panel (IP56) to be installed outside the heat recovery unit. It is formed of a plastic electric box 300x220x120. It houses an electronic board for controlling the loads, 4 NTC temperature probes (6m long), a 4-pole serial cable + shield for connecting the control card to the user interface of the system, and an interface panel. Via the configuration of 10 DIP switches, the electronic board in the kit can control: an electric heater for pre-warming the air taken in from the room; up to 2 electric heaters (with cascade management) for the post-treatment of the fresh air delivered back into the room; a component for air purification (e.g. UV lamp, Plasmacluster, etc.).
RVC: Speed regulator supplied in n°2 pieces.

Additional modules

M4F: External module equipped with pre-filters class G4 (according to EN779) to be placed on the external air inlet.
MBF: External module with water cooling coil and condensate collection basin (only for sizes 140-400).
MBF_X: External module with water cooling coil and condensate collection basin (only for sizes 140X-400X).
MBP: Module with post-heating water coil.
MBE: Module with electric coil (anti-freeze and/or post-heating function).
MSU: Module equipped with silencer baffles. The accessory is supplied in n°1 piece.
FGC: Circular flanges. The accessory is supplied in n°1 piece.

Adjustment accessories

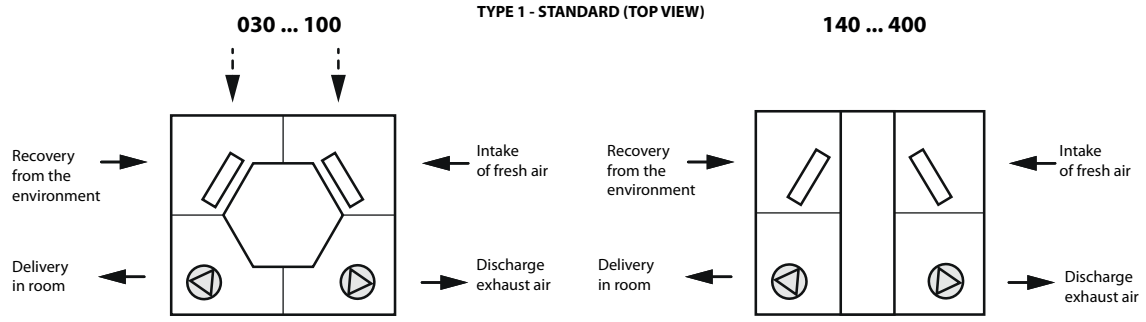
TWWV050: 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 1.0 DN15.
TWWV100: 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 2.5 DN15.
TWWV400: 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 6.3 DN20.
TF100: DN15 threaded couplings with shank and flat-seal idle nut for heat recovery unit / external module with coil.
TF400: DN20 threaded couplings with shank and flat-seal idle nut for heat recovery unit / external module with coil.
TWWVA: Actuator for 3-way valve 24V, for receiving ON-OFF or modulating commands (0-10V), for correct operation provide the VMF-MOD accessory.
FCDA: Servomotor for free cooling damper.

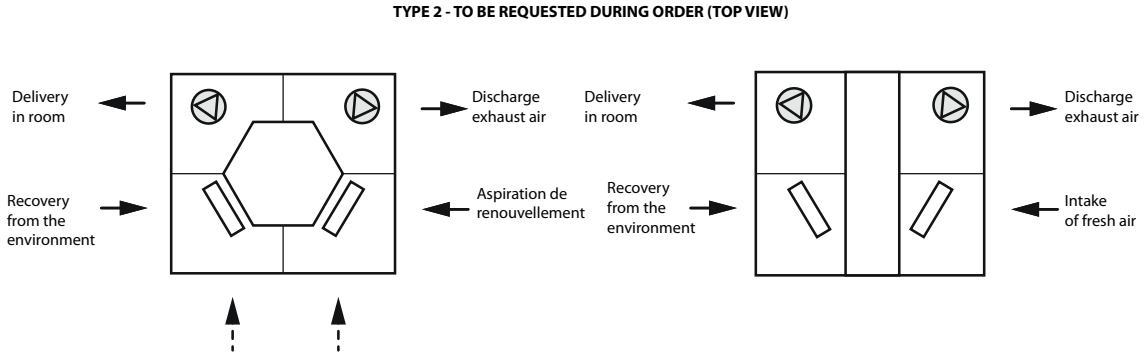
CONFIGURATOR

Field		Description
1,2,3,4		**RPLI**
5,6,7		**Size** 030, 050, 070, 100, 140, 200, 300, 400
8		**Version**
	L	Low useful static pressure
	P	High useful static pressure
9		**Installation**
	°	Horizontal
10		**Flow orientation**
	X	Type 2
	°	Type 1
11		**Exchanger**
	E	Post-heating electric internal coil
	W	Water coil (1)
	°	No internal coil

(1) Can also be used with chilled water: with sizes 030-100 in flow orientation 1 (°), 070-100 in flow orientation 2 (X); the coil is not available for sizes 030-050 with flow orientation 2 (X). Sizes 140-400 can only be used with hot water.

AVAILABLE ORIENTATION





ACCESSORIES COMPATIBILITY

Regulation

Regulation and control panel (outside the heat recovery unit)

Ver	030	050	070	100	140	200	300	400
L, P	HRB	HRB	HRB	HRB	HRB	HRB	HRB	HRB

Speed regulator

Ver	030	050	070	100	140	200	300	400
L	RVC40	RVCL	RVCL	RVC40	RVCL	RVC40	RVC40	RVC40
P	RVC40	RVC40	RVC40	RVC40	RVC40	RVC40	RVC40	RVC40

Additional modules

External module equipped with pre-filters

Ver	030	050	070	100	140	200	300	400
L, P	M4F03	M4F05	M4F07	M4F10	M4F14	M4F20	M4F30	M4F40

External module with water cooling coil

Ver	030	050	070	100	140	200	300	400
L, P	-	-	-	-	MBF14	MBF20	MBF30	MBF40

The accessory cannot be fitted on the configurations indicated with -

Ver	030	050	070	100	140	200	300	400
L, P	-	-	-	-	MBF14X	MBF20X	MBF30X	MBF40X

The accessory cannot be fitted on the configurations indicated with -

3 way valve kit

Accessory	MBF14	MBF14X	MBF20	MBF20X	MBF30	MBF30X	MBF40	MBF40X
TWWV020	•	•	•	•				
TWWV400					•	•	•	•

Threaded coupling

Accessory	MBF14	MBF14X	MBF20	MBF20X	MBF30	MBF30X	MBF40	MBF40X
TF100	•	•	•	•				
TF400					•	•	•	•

Actuator for valves

Accessory	MBF14	MBF14X	MBF20	MBF20X	MBF30	MBF30X	MBF40	MBF40X
TWWVA	•	•	•	•	•	•	•	•

Module with post-heating water coil.

Ver	030	050	070	100	140	200	300	400
L, P	MBP03	MBP05	MBP07	MBP10	MBP14	MBP20	MBP30	MBP40

Module with electric coil

Ver	030	050	070	100	140	200	300	400
L, P	MBE03	MBE05	MBE07	MBE10	MBE14	MBE20	MBE30	MBE40

Module equipped with silencer baffles

Ver	030	050	070	100	140	200	300	400
L, P	MSU03	MSU05	MSU07	MSU10	MSU14	MSU20	MSU30	MSU40

Circular flanges

Ver	030	050	070	100	140	200	300	400
L, P	FGC030	FGC050	FGC070	FGC100	FGC140	FGC200	FGC300	FGC400

Accessories

3 way valve kit

Ver	030	050	070	100	140	200	300	400
L, P	TWWV050	TWWV050	TWWV100	TWWV100	TWWV400	TWWV400	TWWV400	TWWV400

Threaded coupling

Ver	030	050	070	100	140	200	300	400
L, P	TF100	TF100	TF100	TF100	TF400	TF400	TF400	TF400

Actuator for 3-way valves

Ver	030	050	070	100	140	200	300	400
L, P	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA

Free cooling damper actuator

Ver	030	050	070	100	140	200	300	400
L, P	FCDA	FCDA	FCDA	FCDA	FCDA	FCDA	FCDA	FCDA

PERFORMANCE SPECIFICATIONS

RPLI - L

Size		030	050	070	100	140	200	300	400
Heat recovery unit									
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	400V 3~50Hz
Unit type		UVNR (non-residential ventilation unit)							
Heat recovery system type	Type/n°	Static at counter-current flow / 1							
Heat capacity recovered (EN308) (1)	kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Dry heating efficiency (2)	%	81,1	78,1	76,8	75,3	76,0	76,3	75,5	75,6
Information in compliance with Annex V of regulation EU no. 1253/2014									
Nominal air flow rate supply / recovery	m^3/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
Nominal air flow rate supply / recovery	m^3/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate	m^3/h	200	250	400	550	800	1150	1750	2350
Fans (3)									
Commissioning	type	Analogue signal of EC fan (0-10Vdc)							
Type	type	EC							
Number	no.	2	2	2	2	4	2	2	2
Supplied electrical power consumption	kW	0,07	0,09	0,14	0,21	0,33	0,45	0,47	0,73
Recovered electrical power consumption	kW	0,06	0,09	0,14	0,20	0,31	0,41	0,44	0,69
Total input electric power	kW	0,13	0,17	0,28	0,41	0,64	0,86	0,91	1,42
SFP int.	$W/(m^3/s)$	820,00	953,00	907,00	1120,00	1132,00	1103,00	748,00	928,00
SFP int. lim. 2018	$W/(m^3/s)$	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity	m/s	0,8	1,2	1,0	1,4	2,2	2,2	1,9	2,5
Nominal external pressure Δp (3)	Pa	100	100	110	110	110	110	110	110
Useful static supply pressure	Pa	323	401	191	143	112	110	132	196
Useful static recovery pressure	Pa	328	416	198	161	154	149	164	242
Supplied internal pressure drop Δps int.	Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δps int.	Pa	110	213	182	274	228	230	213	244
Fans static efficiency (4)	%	35.8%	57.0%	57.0%	59.7%	57.0%	49.2%	67.2%	66.9%
Internal leakage (5)	%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
External leakage	%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
Air filter									
Expelled air filter	Type/n°	M5/1							
Delivery air filter	Type/n°	F7/1							
Delivery filter energy classification		On request							
Recovery filter energy classification		On request							

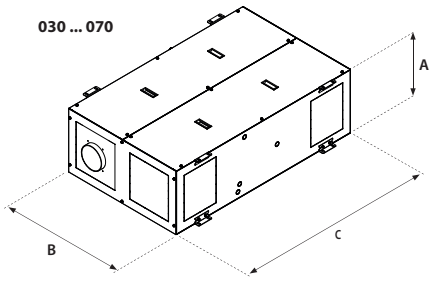
(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

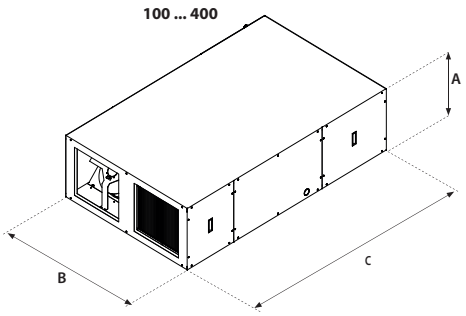
RPLI - P

Size		030	050	070	100	140	200	300	400
Heat recovery unit									
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	400V 3~50Hz	400V 3~50Hz
Unit type		UVNR (non-residential ventilation unit)							
Heat recovery system type	Type/n°	Static at counter-current flow / 1							
Heat capacity recovered (EN308) (1)	kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Dry heating efficiency (2)	%	81,1	78,1	76,8	75,3	76,0	76,3	75,5	75,6
Information in compliance with Annex V of regulation EU no. 1253/2014									
Nominal air flow rate supply / recovery	m^3/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
Nominal air flow rate supply / recovery	m^3/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate	m^3/h	200	250	400	550	800	1150	1750	2300
Fans (3)									
Commissioning	type	Analogue signal of EC fan (0-10Vdc)							
Type	type	EC							
Number	no.	2	2	2	2	2	4	4	2
Supplied electrical power consumption	kW	0,04	0,08	0,11	0,22	0,35	0,41	0,55	0,87
Recovered electrical power consumption	kW	0,04	0,08	0,11	0,21	0,33	0,38	0,50	0,82
Total input electric power	kW	0,09	0,16	0,23	0,42	0,68	0,79	1,04	1,69
SFP int.	$W/(m^3/s)$	543,00	903,00	694,00	1116,00	1095,00	918,00	770,00	999,00
SFP int. lim. 2018	$W/(m^3/s)$	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity	m/s	0,8	1,2	1,0	1,4	2,2	2,2	1,9	2,5
Nominal external pressure Δp (3)	Pa	100	100	125	125	145	145	150	150
Useful static supply pressure	Pa	506	338	279	638	412	469	462	303
Useful static recovery pressure	Pa	511	353	285	656	452	509	493	349
Supplied internal pressure drop Δps int.	Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δps int.	Pa	110	213	182	274	228	230	213	244
Fans static efficiency (4)	%	61,7	61,7	61,7	57,2	57,2	61,8	66,9	62,7
Internal leakage (5)	%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
External leakage	%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
Air filter									
Expelled air filter	Type/n°	M5/1							
Delivery air filter	Type/n°	F7/1							
Delivery filter energy classification		On request							
Recovery filter energy classification		On request							

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

DIMENSIONS AND WEIGHTS





Size		030	050	070	100	140	200	300	400
Dimensions and weights									
A	mm	400	400	435	435	460	460	600	600
B	mm	800	800	945	945	1100	1600	1700	2050
C	mm	1300	1300	1600	1600	1800	1800	2350	2350
Empty weight	kg	95	93	125	123	160	210	287	340

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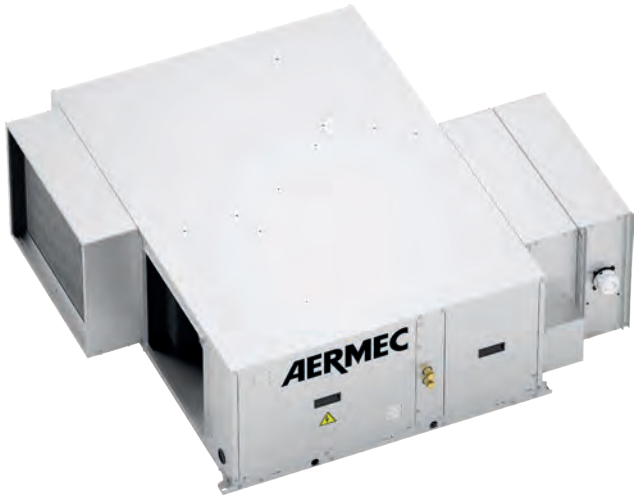
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RTD

Thermodynamic recovery unit with integrated heat pump

Air flow rate 1100 - 3200 m³/h

- **Compact dimensions**
- **Compressor with inverter**
- **EC fan Plug-fan**
- **Fixed point adjustment in delivery**
- **Horizontal installation**



DESCRIPTION

Is an air replacement, filtration and treatment unit equipped with high efficiency thermodynamic recovery performed by an integrated cooling circuit. The inverter compressor allows a high energy saving at the same time as maintaining the set delivery temperature.
The unit can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

FEATURES

Versions

Horizontal installation:

— **RTD**: Standard unit with constant flow-rate control.
— **RTD_Q**: Units with flow modulation according to the concentration of CO_2
— **RTD_W**: Unit with internal hot/cold water coil complete with three-way valve, modulating servo-control and anti-freeze thermostat.

Main components

— Cooling circuit **BLDC inverter compressor.**
— Plug fans with EC inverter motor.
— Safety valve.
— Lower sandwich panels in galvanised sheet metal with injected polyurethane insulation; upper and side panel in galvanised sheet metal internally lined with insulating mat
— Synthetic filter class Coarse 85% according to EN16890 on the outside air inlet complete with fouling detection pressure switch.
— Condensate collection tank in aluminium alloy with side discharge.

Regulation

— **Power and control electrical panel** on the machine.
— Programmable controller able to manage all the advanced functions present on the unit (with fixed point adjustment in delivery; cooling, heating, automatic, free cooling functions; compressor, fans and eventual water coil modulation).
— **Remote panel (mandatory accessory))** in graphic display version or Touch version.

ACCESSORIES

CPVR: Recovery fan constant air flow rate control (accessory supplied separately; the function is enabled on the controller).
PRGD1: Control panel for wall or flush-mount installation with graphic display. Maximum installation distance of 10m.
PRGDX: Touch screen control panel for wall or flush-mount installation complete with black and white frame. Maximum installation distance of 150m.
MRE: Single-stage anti-freeze electric heater module 2 kW to be installed on the external air intake (required for outdoor air temperatures below -5° C).
MF: Coarse 85% efficiency filters module (EN16890) to be positioned in recovery (side extraction) complete with filter clogging pressure switch.

The remote controller is required for unit operation, it is possible to select between PRGD1 and PRGDX.

ACCESSORIES COMPATIBILITY

Recovery fan constant air flow rate control and xontrol panel

Model	Ver	11	14	17	21	26	32
CPVR (1)	.,Q,QW,W	•	•	•	•	•	•
PRGD1 (2)	.,Q,QW,W	•	•	•	•	•	•
PRGDX	.,Q,QW,W	•	•	•	•	•	•

(1) Accessory supplied separately.
(2) The remote controller is required for unit operation, it is possible to select between PRGD1 and PRGDX.

Anti-freeze electric heater module

Model	Ver	11	14	17	21	26	32
MRE2M	.,Q,QW,W	•	•				
MRE3M	.,Q,QW,W			•			
MRE3T	.,Q,QW,W				•		
MRE5T	.,Q,QW,W					•	•

Coarse 85% efficiency filters module (EN16890)

Model	Ver	11	14	17	21	26	32
MF5R1	.,Q,QW,W	•	•				
MF5R2	.,Q,QW,W			•	•		
MF5R3	.,Q,QW,W					•	•
MF7M1	.,Q,QW,W	•	•				
MF7M2	.,Q,QW,W			•	•		
MF7M3	.,Q,QW,W					•	•

CONFIGURATOR

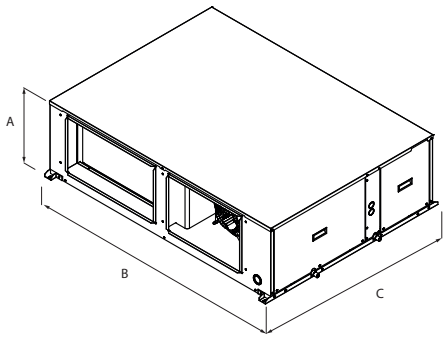
Field	Description
1,2,3	**RTD**
4,5	**Size** 11, 14, 17, 21, 26, 32
6	**Ventilation control type**
Q	Control via air quality probe
°	Constant flow (standard unit)
7	**Internal hot/cold water coil**
W	Internal water coil
°	No coil (standard unit)

PERFORMANCE SPECIFICATIONS

		RTD11	RTD14	RTD17	RTD21	RTD26	RTD32
Air flow rates							
Nominal air flow rate	m^3/h	1100	1400	1700	2100	2600	3200
Minimum air flow rate	m^3/h	950	1200	1450	1800	2200	2700
Maximum air flow rate	m^3/h	1200	1550	1850	2300	2850	3500
Delivery fan							
Type	type	Plug-fan	Plug-fan	Plug-fan	Plug-fan	Plug-fan	Plug-fan
Fan motor	type	EC Inverter motors	EC Inverter motors	EC Inverter motors	EC Inverter motors	EC Inverter motors	EC Inverter motors
Number	no.	1	1	1	1	1	1
Nominal useful head	Pa	150	150	150	150	150	150
Maximum useful head	Pa	510	580	520	360	570	380
Cooling input power	kW	0,19	0,20	0,23	0,32	0,43	0,62
Heating input power	kW	0,18	0,18	0,22	0,30	0,39	0,56
Expulsion fan							
Type	type	Plug-fan	Plug-fan	Plug-fan	Plug-fan	Plug-fan	Plug-fan
Fan motor	type	EC Inverter motors	EC Inverter motors	EC Inverter motors	EC Inverter motors	EC Inverter motors	EC Inverter motors
Number	no.	1	1	1	1	1	1
Nominal useful head	Pa	150	150	150	150	150	150
Maximum useful head	Pa	530	600	520	370	590	400
Cooling input power	kW	0,17	0,16	0,19	0,27	0,33	0,46
Heating input power	kW	0,18	0,18	0,22	0,31	0,39	0,54
Performance in cooling mode at maximum compressor speed (1)							
Cooling capacity	kW	6,70	8,00	8,80	11,20	14,10	16,30
Sensible cooling capacity	kW	5,70	6,80	7,80	9,80	12,10	13,80
Compressors absorbed power	kW	1,80	2,20	2,30	3,20	4,00	4,50
Total input power EN14511 2017	kW	2,09	2,43	2,58	3,55	4,48	5,15
EER EN14511:2017	W/W	3,20	3,30	3,42	3,16	3,14	3,16
EER	W/W	3,11	3,15	3,24	2,96	2,95	2,92
Performance in heating mode at maximum compressor speed							
Heating capacity	kW	7,70	9,30	10,60	13,80	16,90	20,00
Compressors absorbed power	kW	1,60	2,00	2,20	2,90	3,30	4,10
COP refrigerant circuit	W/W	4,83	4,64	4,82	4,74	5,12	4,87
COP EN14511:2017 (2)	W/W	4,07	4,13	4,26	4,20	4,45	4,18
COP	W/W	3,94	3,92	4,02	3,91	4,15	3,84
Total input power EN14511 2017	kW	1,90	2,20	2,50	3,30	3,80	4,80
Total input power	kW	2,00	2,40	2,60	3,50	4,10	5,20
Compressor							
Type	type	Twin-rotary BLDC	Twin-rotary BLDC	Twin-rotary BLDC	Twin-rotary BLDC	Twin-rotary BLDC	Twin-rotary BLDC
Compressor regulation	Type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
Number	no.	1	1	1	1	1	1
Refrigerant	type	R410A	R410A	R410A	R410A	R410A	R410A
Electric data							
Input power at full load	kW	4,30	4,50	4,50	5,30	6,10	6,10
Input current at full load	A	14,40	13,80	13,80	17,90	16,90	16,90
Power supply							
Power supply		230V 50Hz	230V 50Hz	230V 50Hz	400V 3N 50Hz	400V 3N 50Hz	400V 3N 50Hz

(1) Cooling mode: aire temperature 35°C Tbs / 24 °C Tbh ; ambient air 27°C Tbs /19°C Tbh .
(2) Heating mode: aire temperature 7°C Tbs / 6°C Tbh ; ambient air 20°C Tbs /15°C Tbh.

DIMENSIONS



Size			11	14	17	21	26	32
Dimensions and weights								
A	.,Q,QW,W	mm	430	430	530	530	630	630
B	.,Q,QW,W	mm	1508	1508	1508	1508	1508	1508
C	.,Q,QW,W	mm	1100	1100	1100	1100	1100	1100
Empty weight	.	kg	133	135	148	160	179	179
	Q	kg	135	137	150	162	181	181
	QW	kg	135	142	161	172	197	197
	W	kg	140	142	159	170	195	195
Weight functioning	.	kg	133	135	148	160	179	179
	Q,QW,W	kg	-	-	-	-	-	-

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RPF

High performance heat recovery unit with cross-current recuperator

Air flow rate 790 - 4250 m³/h

- **Cross-current heat recovery with performances superior than 90%**
- **Plug fans coupled with ec brushless motors for energy costs reduction**



DESCRIPTION

Heat recovery units RPF have been designed for commercial applications and permits to combine an excellent ambient comfort with a sure energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
The units RPF thanks to the cross-current heat recuperator permit to save more than 90% of energy which otherwise would be lost with expelled stuffy air.
RPF could be integrated with traditional systems realized with fan coils, chillers, and could work both in winter and in summer. This series is indicated for both horizontal and vertical installation.

CONFIGURATIONS

O Horizontal right supply
P Horizontal left supply
V Vertical right supply
Z Vertical left supply
Each of the different configurations could be further customized thanks to the choice of the accessories.
For further information, please refer to the technical documentation on the website.

STRUCTURE

The structure is formed by aluminium profiles with thermic cut, connected by nylon angles charged with glassfibre.
The sealing panels, of 50 mm thickness, are of the sandwich type in pre-painted plate RAL 9002 (external) and galvanized sheet iron (internal) insulated with polyurethane with density 45 kg/m³. The expandent of the polyurethane foam is based on water permitting to reach GWP=0 (Global Warming Potential).
The casing is in fire reaction class M1 according to the French regulation NF P 92-512:1986. Removable panels are also foreseen to access to internal components, equipped with safety locks, condensate drain and internal modulating rolling shutter of motorized and controlled bypass for free-cooling.

Fans

Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC). The impellers are oriented in such a way to grant an optimal air flow which goes through the internal components, with the minimum noise.

Air filters

Air filtration with a filter with G4 efficiency (according to EN779) with low pressure drops on extracted air flow and a compact filter and with efficiency F7 (according to EN779) having a large filtrating surface made of glass microfibre paper, inserted in the intake flow.
The two typologies of filters are positioned upstream of the components to be protected, in order to grant low pressure drops, having a large surface available. The filtrating cells are fixed on a proper bearing frame to avoid any by-pass of non-treated air.
Their extractability is guaranteed from a proper side opening (standard), superior or inferior (optional) [with reference to the horizontal version].

Heat recovery unit

Static high efficiency cross-current heat recovery unit with high efficiency and aluminium plate.
The heat recovery unit guarantees the non-contamination of air flows, because the plates are properly sealed. Its performance is not inferior to 90% (EN308) in function to the external conditions: Air of intake: -10°C/90% - Air of extract 20°C/50% and equal capacities between supply and extract.
It is included also the function of automatic defrosting made easy by the internal modulating rolling shutter and from the possible modulation with intake flow.

REGULATION

Costituted by power electric panel and programmable controller with integrated graphic display. Everything is internally fitted in the unit in an accessible position.
The function of regulation are:
— Ventilation control (manual control of the standard fans speed);
— Thermo-regulation completed with all electric/electronic components (modality of regulation in standard extract);

— Integrated logics of energy savings: modulating free-cooling / free-heating, anti-freeze, night cooling, air quality control, dynamic set point, speed economy of ventilation, ranges of time;
— Complete interfaceability with BMS systems.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

The elimination from closed rooms of the polluting elements, produced mainly from people and the simultaneous external air input, are at the basis of the concept of controlled mechanical ventilation (VMC) of the internal rooms.
The purpose of ventilation is to raise the standard of internal air quality with consequent positive effects for health and productivity of the occupiers. The change of air has positive effects also on the good maintenance of the building.
For the building to be requalified, the Controlled Mechanical Ventilation is almost a mandatory choice in order to reach high energy standards, which are imposed by the current legislation.

Very high ventilation efficiency

Since the ventilation represents one of the major factor of energy consumption, particular attention has been given to the study and to the creation of the ventilation system.
Fans of the plug-fan type with EC brushless motors have been used both in supply and in extraction; they permit high performances and reduced consumptions. Furthermore, compared with the traditional centrifugal fans, they don't have belts or pulleys with consequent easiness of capacity regulation, compactness, versatility, and an easy maintenance.

A particular adaptative logic permits to adjust the effective air capacity required from the system with more consequent advatages in terms of reduction of consumptions.

Maximum efficiencies

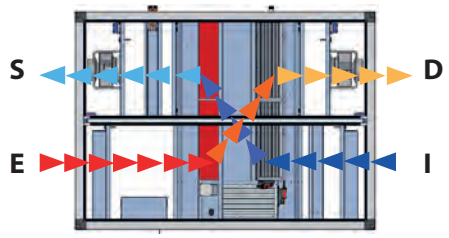
In this context RPF is proposed as the high efficient and performing solution for double flow ventilation systems with heat recovery.
The key-concept on which is based the RPF proposal are:
— Very high efficiency heat recovery attested by EUROVENT certification and maintenance of the complete separation of intake and discharge air flow;
— Reduced ventilation energy consumptions, thanks to a detailed dimensioning of the components in order to have low total values of SFP (Specific Fan Power or rather energy consumption for m^3/h of total processed capacity);
— High efficiency filtration and low pressure drops;
— Advanced electronic management for the energy saving and of controlling of internal pollutants functions VOC (Volatile Organic Compounds);
— Compactness of dimensions and logic of installation "plug and play".

Air quality in room

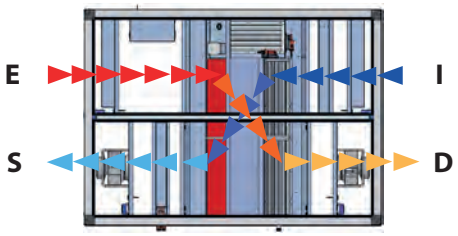
Particular attention has been given naturally also to the quality of air in the room, standard assigned to filters with efficiency G4 on extracted air flow and on compact filter with efficiency F7 included on intake air flow.
Naturally all these technological advantages are controlled by a thermoregulation of last generation, able to manage the different working procedures; assuring the maximum energy saving in every usage condition by using a proper software.

BASIC CONFIGURATION

RPF O Horizontal conÿguration
Right supply (seen from above)



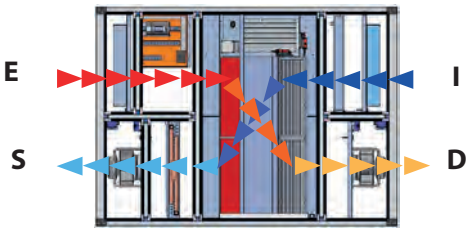
RPF P Horizontal conÿguration
Left supply (seen from above)



RPF V Vertical conÿguration
Right supply (seen from the accessible side)



RPF Z Vertical conÿguration
Left supply (seen from the accessible side)



D = Discharge
I = Intake
S = Supply
E = Extract

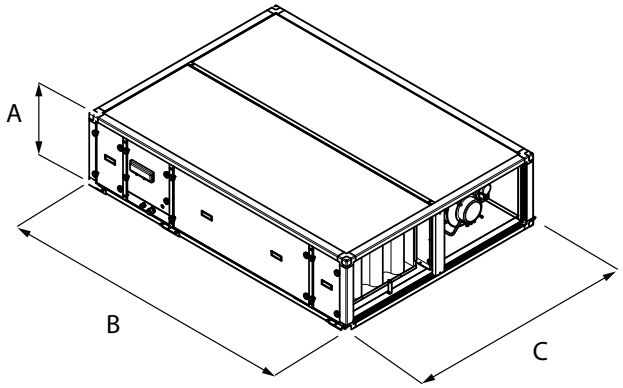
PERFORMANCE SPECIFICATIONS

		RPF008	RPF010	RPF013	RPF020	RPF031	RPF042
Heat recovery unit							
Power supply				230V~50Hz		400V 3~50Hz	
Unit type				UVNR (non-residential ventilation unit)			
Heat recovery system type	Type/n°			Static at counter-current flow / 1			
Heat capacity recovered (EN308) (1)	kW	4,2	5,4	7,0	10,7	16,6	22,8
Dry heating efficiency (2)	%	80,0	79,9	80,0	79,9	79,9	83,8
Information in compliance with Annex V of regulation EU no. 1253/2014							
Nominal air flow rate supply / recovery	m^3/s	0,22	0,28	0,36	0,56	0,86	1,18
Nominal air flow rate supply / recovery	m^3/h	790	1000	1300	2000	3100	4250
Minimum air flow rate	m^3/h	200	200	400	1000	1000	1300
Maximum air flow rate	m^3/h	980	1260	1530	2350	3700	4600
Fans (3)							
Commissioning	type			Analogue signal of EC fan (0-10Vdc)			
Type	type			EC			
Number	no.	2	2	2	2	2	2
Supplied electrical power consumption	kW	0,16	0,24	0,33	0,60	0,79	1,30
Recovered electrical power consumption	kW	0,15	0,23	0,33	0,56	0,76	1,20
Total input electric power	kW	0,31	0,47	0,66	1,16	1,55	2,50
Maximum input power	kW	0,60	1,24	1,26	1,66	5,26	5,26
Maximum input power	A	4,6	7,5	7,5	9,3	11,1	11,1
SFP int.	$W/(m^3/s)$	625,00	667,00	743,00	1142,00	919,00	1211,00
SFP int. lim. 2018	$W/(m^3/s)$	1127	1118	1109	1227	1031	1253
Filters face velocity	m/s	1,8	2,0	1,8	2,2	2,2	2,1
Nominal external pressure Δp (3)	Pa	200	250	250	250	250	225
Useful static supply pressure	Pa	191	218	169	134	215	143
Useful static recovery pressure	Pa	196	233	175	152	255	184
Supplied internal pressure drop Δps int.	Pa	174	198	219	319	304	372
Recovered internal pressure drop Δps int.	Pa	176	189	227	355	293	379
Fans static efficiency (4)	%	61,7	57,2	57,2	61,8	66,9	62,7
Internal leakage (5)	%	0,3	0,3	0,3	0,1	0,3	0,2
External leakage	%	< 3	< 3	< 3	< 3	< 3	< 3
Air filter							
Delivery filter energy classification					B		
Recovery filter energy classification					On request		

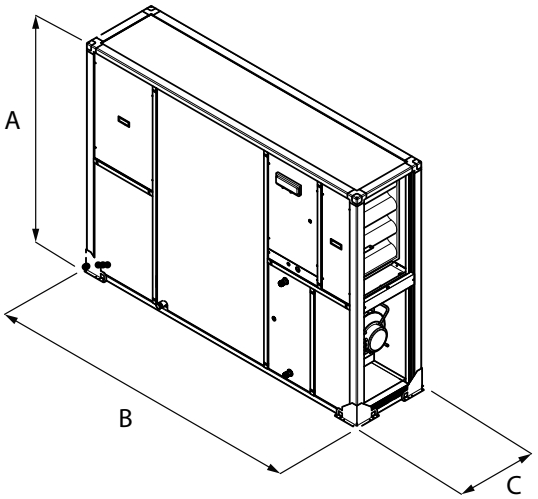
(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

DIMENSIONS

RPF 008 - 031
Horizontal Installation



RPF 008 - 042
Vertical Installation



Size			008	010	013	020	031	042
Dimensions and weights								
A	0,P	mm	450	450	524	560	700	-
	V,Z	mm	1054	1258	1374	1694	1948	1550
B	0,P	mm	1915	1915	2174	2334	2654	-
	V,Z	mm	1915	1915	2174	2334	2654	2974
C	0,P	mm	1054	1258	1374	1694	1948	-
	V,Z	mm	450	450	524	560	700	1130
Empty weight	0,P	kg	194	220	264	328	452	-
	V,Z	kg	194	220	264	328	452	585

The weights are standard configuration units without accessories.

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URX-CF

Heat recovery unit with refrigerant circuit

Air flow rate 750 - 3300 m³/h

- **Heat pump cooling circuit with high yield and low noise scroll compressors.**



DESCRIPTION

The URX-CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.

The URX-CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.

The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A.

This allows for a complete machine, with autonomous operation during every season and able to provide both the required air renewal for rooms and an efficient heat recovery.

The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

FEATURES

Panels

Self-supporting sandwich panel 20 mm thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 40 kg/m³).

Heat recovery

Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

Air filters

Class G4, located before the heat recovery both in the supply and return air flow.

Fans

Double inlet forward curved blades with direct drive motor. Single phase 230V-50Hz single speed motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

Refrigerant circuit

Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

Accessibility

From below for the heat recovery, the filters, the condensate drain tray and the fans.

Regulation

The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions.

Included are:

— NTC return air temperature sensor;
— External air temperature sensor;
— Dampers and actuators in the free-cooling version;
— Pressure switch in the supply air filter;
— Card RS485

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

ACCESSORIES COMPATIBILITY

Circular flanges

Accessory	URX07CF	URX10CF	URX15CF	URX21CF
FGC07	•			
FGC10		•		
FGC15			•	
FGC21				•

Hot water coil module

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
MBC07	•				
MBC10		•			
MBC15			•		
MBC21				•	
MBC33					•

Free-cooling module

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
FCE07	•				
FCE10		•			
FCE15			•		
FCE21				•	
FCE33					•

Module with electric coil

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
MBX07	•				
MBX10		•			
MBX15			•		
MBX21				•	
MBX33					•

Module equipped with silencer baffles

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
SUF07	•				
SUF10		•			
SUF15			•		
SUF21				•	
SUF33					•

PERFORMANCE SPECIFICATIONS

		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Heat recovery unit						
Power supply		230V~50Hz	230V~50Hz	400V~ 3N 50Hz	400V~ 3N 50Hz	400V~ 3N 50Hz
Cooling performances (1)						
Total cooling capacity (heat recovery + refrigerant circuit)	kW	6,1	7,3	10,2	15,0	23,0
Cooling capacity available	kW	1,4	1,7	2,2	3,4	5,1
Cooling capacity recovered	kW	0,9	1,3	2,0	2,8	4,2
Summer thermal efficiency	%	46,2	51,2	53,2	53,6	53,6
Total input power	kW	2,60	2,80	3,80	5,00	6,90
Heating performances (2)						
Heating capacity total (heat recovery + refrigerant circuit)	kW	8,8	10,8	15,8	22,8	33,3
Heating capacity available	kW	2,4	2,3	3,0	4,8	5,2
Recovered heating power	kW	2,9	4,3	7,1	10,1	14,3
Winter thermal efficiency	%	46,2	51,2	53,2	53,6	53,6
Total input power	kW	2,00	2,00	3,30	4,00	5,50
Compressor						
Type	type	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor regulation	Type	On-Off	On-Off	On-Off	On-Off	On-Off
Number	no.	1	1	1	1	1
Refrigerant	type	R410A	R410A	R410A	R410A	R410A
Refrigerant charge (3)	kg	2,4	2,9	3,0	3,7	4,5
Delivery fan						
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1	1
Nominal air flow rate	m^3/h	750	1000	1500	2100	3300
Minimum air flow rate	m^3/h	640	850	1275	1785	2800
High static pressure	Pa	278	233	239	166	289
Total fan input power	kW	0,37	0,42	0,51	0,62	1,25
Total fan input current	A	2,4	2,4	3,6	3,6	6,6
Recovery fan						
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1	1
Nominal air flow rate	m^3/h	750	1000	1500	2100	3300
Minimum air flow rate	m^3/h	640	850	1275	1785	2800
High static pressure	Pa	248	218	233	163	273
Total fan input power	kW	0,37	0,42	0,51	0,62	1,25
Total fan input current	A	2,4	2,4	3,6	3,6	6,6

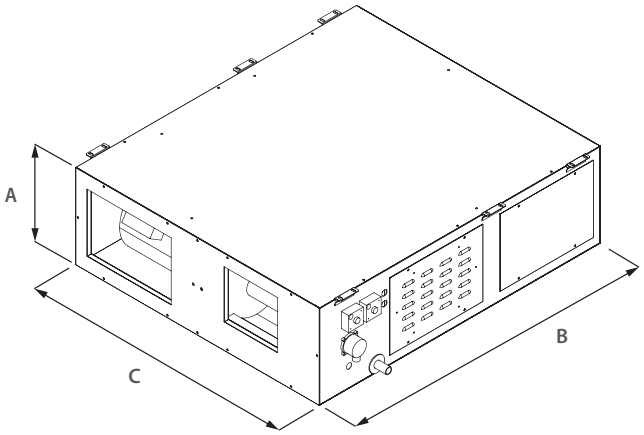
(1) Recovery air 26 °C 50%; External air 34 °C 50%.
(2) Recovery air 20 °C 50%; External air 5 °C 80%.
(3) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Hot water coil (accessory)						
Row	no.	2	2	2	2	2
Pressure drop - air side	Pa	11	18	23	42	78
Heating operations 70 °C / 60 °C (1)						
Heating capacity	kW	5,00	6,00	8,70	10,30	16,80
Water flow rate	l/h	442	523	763	902	1475
Pressure drop	kPa	16	22	9	12	31
Heating operations 45 °C / 40 °C (2)						
Heating capacity	kW	1,90	2,20	3,40	3,70	7,50
Water flow rate	l/h	336	382	584	638	1306
Pressure drop	kPa	11	14	6	7	28

(1) Water temperature (in/out) 70°C / 60°C; Compressor operating.
(2) Water temperature (in/out) 45°C / 40°C; Compressor operating.

		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Electric heating coil - (accessory)						
Power supply				400V 3 ~ 50Hz		
Stages	no.	1	1	1	1	1
Heating capacity	kW	3,00	4,50	6,00	9,00	12,00
Input current	A	4,6	6,8	11,4	17,2	26,0
Pressure drop - air side	Pa	10	10	10	10	10

DIMENSIONS



		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Dimensions and weights						
A	mm	450	450	550	550	600
B	mm	1300	1300	1500	1500	1600
C	mm	1500	1500	1800	1800	1800
Empty weight	kg	205	218	272	298	328

■ *The weights are standard configuration units without accessories.*

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URHE-CF

Heat recovery unit with refrigerant circuit

Air flow rate 1000 - 3300 m³/h

- **Heat pump cooling circuit with high yield and low noise scroll compressors.**
- **High efficiency**



DESCRIPTION

The units of the series URHE-CF are a highly efficient solution for satisfying the requirements of thermohygrometric wellness and air changes in air conditioning systems that are used in civil and service sector environments such as offices, bars, restaurants, etc.

The URHE-CF units are perfectly efficient machines in that they use a high performance plate cross flow heat recovery unit together with a heat pump refrigerant circuit operating with the R410A. refrigerant.

The use of the high performance cross flow heat recovery unit allows you to substantially reduce the start-up period of the refrigerant circuit during the year, thereby minimizing electrical energy consumption.

The unit's small size makes it easy to install also in false ceilings, maintaining excellent accessibility for the upkeep of all its internal components.

The numerous accessories that are available upon request, like for example the compact high efficiency filters, the water coils or the silencers, complete the functions of the machine that is generally combined with an air conditioning system.

FEATURES

Panels

Structure made of aluminium profiles with fibreglass reinforced nylon corners.

Sandwich panels, 25 mm thick, in galvanised sheet metal for the inner surface, pre-painted for the external surface with injected polyurethane insulation (density 42 kg/m³).

Heat recovery

Aluminium cross flow plates optimised to guarantee elevated performance.

Air filters

Class G4, 80% gravimetric efficiency, according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

Fans

Centrifugal fans with forward-curved blades with high pressure head motor directly attached. The air flow rate is kept constant by means of an electronic control device.

Refrigerant circuit

Heat pump with R410A refrigerant, equipped with high performance, quiet rotary or scroll compressors (depending on the size), 4-way cycle inversion valves, evaporator coil, condenser coil, liquid receiver, thermostatic valve, liquid indicator, filter-drier, high pressure switch, low pressure switch, safety valve, bypass valve (for smaller sizes).

Regulation

The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions.

Included are:

— NTC return air temperature sensor;
— External air temperature sensor;
— Dampers and actuators in the free-cooling version;
— Pressure switch in the supply air filter;
— Card RS485

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

ACCESSORIES COMPATIBILITY

Hot water coil module

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
MBCH1	•	•	•	
MBCH2				•

Module with electric coil

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
MBCX1	•			
MBCX2		•		
MBCX3			•	
MBCX4				•

F7 compact high efficiency filters.

Accessory	URHE15CF	URHE25CF	URHE33CF
FCT1	•		
FCT2		•	
FCT3			•

Module equipped with silencer baffles.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
MSS1	•	•	•	
MSS2				•

Free-cooling module

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
FGE1	•	•	•	•

Base for floor installation.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
BIT1	•	•		
BIT2			•	
BIT3				•

Base for floor installation of the additional modules.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
BIM1	•	•	•	•

Roof for outdoor installation.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
TPE1	•	•		
TPE2			•	
TPE3				•

Roof for outdoor installation of the additional modules.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
TPM1	•	•	•	
TPM2				•

Kit free-cooling.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
FCH1	•	•		
FCH2			•	•

Roof for silencer baffles.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
TPMSS1	•	•	•	
TPMSS2				•

PERFORMANCE SPECIFICATIONS

		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Heat recovery unit					
Power supply		230V~50Hz	230V~50Hz	400V~ 3N 50Hz	400V~ 3N 50Hz
Cooling performances (1)					
Total cooling capacity (heat recovery + refrigerant circuit)	kW	6,6	8,7	13,8	19,8
Cooling capacity available	kW	1,8	3,1	3,3	5,4
Cooling capacity recovered	kW	2,2	3,2	4,5	5,8
Summer thermal efficiency	%	82,0	80,0	68,0	65,0
Total input power	kW	2,60	2,90	5,10	6,50
Heating performances (2)					
Heating capacity total (heat recovery + refrigerant circuit)	kW	10,9	14,2	24,8	33,1
Heating capacity available	kW	2,8	2,9	3,9	7,0
Recovered heating power	kW	3,6	10,0	15,3	19,6
Winter thermal efficiency	%	82,0	80,0	73,0	71,0
Total input power	kW	2,20	2,40	4,20	4,90
Compressor					
Number	no.	1	1	1	1
Refrigerant	type	R410A	R410A	R410A	R410A
Delivery fan					
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1
Nominal air flow rate	m^3/h	1000	1500	2500	3300
Minimum air flow rate	m^3/h	800	1100	2000	2500
High static pressure	Pa	320	245	140	220
Total fan input power	kW	0,42	0,46	1,10	1,10
Total fan input current	A	3,1	3,1	5,3	5,3
Recovery fan					
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1
Nominal air flow rate	m^3/h	1000	1500	2500	3300
Minimum air flow rate	m^3/h	800	1100	2000	2500
High static pressure	Pa	320	245	140	220
Total fan input power	kW	0,42	0,46	1,10	1,10
Total fan input current	A	3,1	3,1	5,3	5,3

(1) Recovery air 26 °C 50%; External air 34 °C 50%.
(2) Recovery air 20 °C 50%; External air 5 °C 80%.

Technical data MBCH - Hot water coil (accessory)

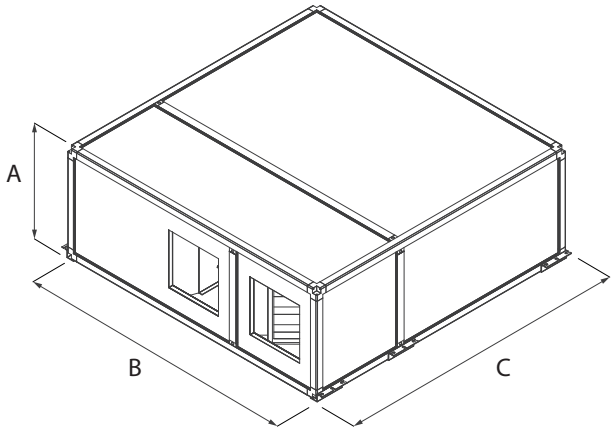
		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Hot water coil (accessory)					
Row	no.	2	2	2	2
Pressure drop - air side	Pa	7	18	37	37
Heating operations 70 °C / 60 °C (1)					
Heating capacity	kW	7,70	10,30	15,60	19,70
Water flow rate	l/h	673	906	1363	1725
Pressure drop	kPa	11	8	18	32
Heating operations 45 °C / 40 °C (2)					
Heating capacity	kW	2,60	4,00	6,50	7,60
Water flow rate	l/h	446	700	1118	1311
Pressure drop	kPa	3	6	14	22

(1) Water temperature (in/out) 70°C / 60°C; Compressor operating.
(2) Water temperature (in/out) 45°C / 40°C; Compressor operating.

Technical data MBCX - Electric heating coil - (accessory)

		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Electric heating coil - (accessory)					
Power supply			400V/3/50Hz		
Stages	no.	1	1	1	1
Heating capacity	kW	5,00	7,50	12,50	10,00
Input current	A	7,6	11,4	19,0	25,1
Pressure drop - air side	Pa	10	10	10	10

DIMENSIONS



		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Dimensions and weights					
A	mm	580	580	580	580
B	mm	1640	1640	1640	1970
C	mm	1500	1500	1990	2310
Empty weight	kg	300	310	373	410

■ *The weights are standard configuration units without accessories.*

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ERSR

High-efficiency heat recovery with rotary recovery unit

Air flow rate 1000 - 30000 m³/h

- **Technology high efficiency**
- **Mechanically controlled ventilation**
- **Recovery of up to 80% of the energy of the expelled air**
- **Air purification**



DESCRIPTION

The ERSR heat recovery units for indoor and outdoor installation are designed for commercial applications and are able to combine maximum environmental comfort with definite energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
But ERSR units are equipped with a rotary heat recovery unit (upon request, also hygroscopic rotary) that enables you to save more than 80% of the energy that would otherwise be lost with the expelled stale air.
These units can be integrated with fan coils and chillers, and can operate both in winter and summer.

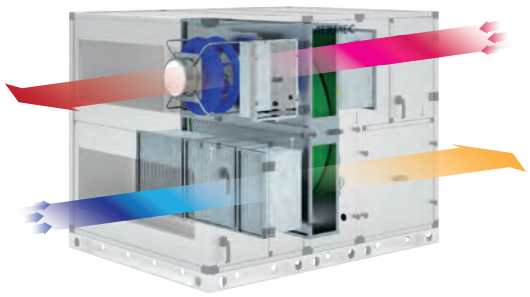
VERSIONS

H With a hygroscopic rotary recovery
T With a sensitive rotary recovery

STRUCTURE

— Rotary heat recovery unit (with the option in hygroscopic material), high-efficiency and low pressure drops.
— Soft air bag F7 filters (flow and recovery) equipped with a standard differential pressure switch, which can be extracted from either side facilitate their periodic cleaning.
— **Fans (intake and flow), Plug fan with back curved blades with a directly coupled, electronically controlled motor for sizes 07-17 and with an inverter for sizes 21-24.**
— Support frame and sandwich panels, 50 mm thick, in galvanised sheet steel for internal surfaces and pre-painted externally, and with mineral wool insulation (density 40 kg/m³). Base in galvanised sheet steel continuous profiles. Sizes 07 to 09 are monoblocs whilst the other sizes are divided into sections. The unit can be inspected from both sides.
— The unit is equipped with a power electric control board on the machine and adjustment purposely designed to reduce energy consumption. Equipped with a communication serial port on RS485 with MODBUS Master/Slave protocol.

FEATURES



- Air expelled
- Air recovery from the room
- Outdoor fresh air
- Air introduced into the room

Quality of the air
Nowadays, the quality of air inside rooms is fundamental. The mechanically controlled ventilation system is not only indispensable from an energetic point of view, but also for the comfort of the rooms. Harmful elements and smells in the air are eliminated by the efficient filtration system with bag filters (F7), which are easily extracted and regenerated.

High-efficiency air circulation thanks to plug-fans with electronically controlled motors or inverters, depending on the sizes

Freecooling: free comfort
During in-between seasons, outdoor climatic conditions can be more pleasant than those indoors. In such situations, the ERSRs stop the recovery unit enabling the intake of fresh outdoor air to air-condition indoor rooms at zero cost.

High-efficiency recovery unit (80% of the energy of the expelled air)
Air heat recovery both in summer and winter, thanks to the rotary recovery unit (hygroscopic version also available). Air introduced into the room is always optimised, thanks to the heat exchange between the air recovery and outdoor fresh air.

State of the art electronic control
Naturally, all these technological advantages are controlled by state of the art heat regulation, thus ensuring maximum energy savings in every condition of use.

ACCESSORIES
CAP: Intake waterproof cover.
BDL: Delivery waterproof cover.
TDP: Roof for outdoor installation.
VRC: Condensate drip tray.
VVR: Variable speed recovery unit.
KDP: Dehumidification and post-heating management kit.
RBC: 3-way valve hot water coil module.
RBF: 3-way valve cold water coil module.
RBE: Electric coil module.
RBP: 3-way valve cold water and post-heating coil module.
MSS: Module equipped with silencer baffles.
FRR: Rectangular flange.
GAR: Rectangular anti-vibration joint.
HSR: Fresh air intake damper with servocontrol.
RSR: Recirculation damper module.
HG4: Flat filters efficiency G4.

ACCESSORIES COMPATIBILITY

Regulation

Rectangular flange.

Ver	07	09	12	15	17	21	24
H, T	FRR09	FRR09	FRR12	FRR15	FRR17	FRR21	FRR24

Condensate drain tray.

Ver	07	09	12	15	17	21	24
H, T	VRC07	VRC09	VRC12	VRC15	VRC17	VRC21	VRC24

Additional modules

Rectangular anti-vibration joint.

Ver	07	09	12	15	17	21	24
H, T	GAR07	GAR09	GAR12	GAR15	GAR17	GAR21	GAR24

Recirculation damper module.

Ver	07	09	12	15	17	21	24
H, T	-	-	RSR12	RSR15	RSR17	RSR21	RSR24

The accessory cannot be fitted on the configurations indicated with -

Flat filters efficiency G4.

Ver	07	09	12	15	17	21	24
H, T	HG407	HG409	HG412	HG415	HG417	HG421	HG424

Fresh air intake damper with servocontrol.

Ver	07	09	12	15	17	21	24
H, T	HSR07	HRS09	HRS12	HRS15	HRS17	HRS21	HRS24

Roof protection for basic unit in the case of outdoor installation.

Ver	07	09	12	15	17	21	24
H, T	TDP07	TDP09	TDP12	TDP15	TDP17	TDP21	TDP24

Delivery waterproof cover.

Ver	07	09	12	15	17	21	24
H, T	BDL07	BDL09	BDL12	BDL15	BDL17	BDL21	BDL24

Accessories

Air quality probe (VOC).

Ver	07	09	12	15	17	21	24
H, T	QP	QP	QP	QP	QP	QP	QP

Variable speed recovery unit.

Ver	07	09	12	15	17	21	24
H, T	VVR07	VVR09	VVR12	VVR15	VVR17	VVR21	VVR24

Dehumidification and post-heating management kit.

Ver	07	09	12	15	17	21	24
H, T	KDP	KDP	KDP	KDP	KDP	KDP	KDP

Intake waterproof cover.

Ver	07	09	12	15	17	21	24
H, T	CAP07	CAP09	CAP12	CAP15	CAP17	CAP21	CAP24

3-way valve hot water coil module.

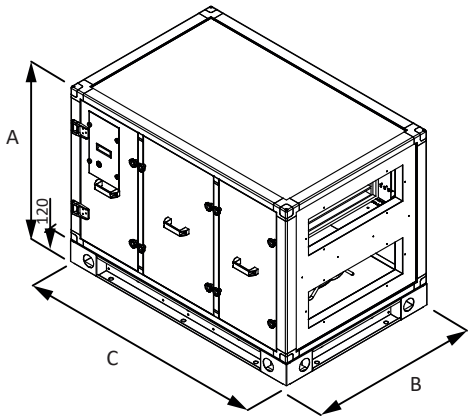
Ver	07	09	12	15	17	21	24
H, T	RBC07	RBC09	RBC12	RBC15	RBC17	RBC21	RBC24

PERFORMANCE SPECIFICATIONS

Size		07	09	12	15	17	21	24
Heat recovery unit								
Power supply					400V 3N ~ 50Hz			
Unit type					UVNR (Unit ventilation not residential)			
Heat recovery system type	Type/n°							
Heat capacity recovered (EN308) (1)	kW	5,8	10,3	19,4	31,4	41,3	64,3	85,0
Dry heating efficiency (2)	%	79,0	78,9	78,3	78,8	78,9	78,5	78,7
Information in compliance with Annex V of regulation EU no. 1253/2014								
Nominal air flow rate supply / recovery	m^3/s	0,31	0,54	1,03	1,65	2,17	3,39	4,47
Nominal air flow rate supply / recovery	m^3/h	1100	1950	3700	5950	7800	12200	16100
Minimum air flow rate	m^3/h	-	-	-	-	-	-	-
Fans (3)								
Commissioning	type				Analog signal of EC fan			
Type	type				Plug-fan			
Number	no.	1	1	1	1	1	1	1
Supplied electrical power consumption	kW	0,27	0,48	0,85	1,31	1,90	2,20	2,80
Recovered electrical power consumption	kW	0,27	0,48	0,86	1,30	1,90	2,20	2,80
Total input electric power	kW	0,84	2,04	6,10	8,78	10,20	22,37	30,37
SFP int.	$W/(m^3/s)$	1061,00	994,00	927,00	733,00	669,00	778,00	759,00
SFP int. lim. 2018	$W/(m^3/s)$	1141	1106	1033	942	887	886	887
Filters face velocity	m/s	1,8	1,9	1,8	1,8	1,8	1,6	1,7
Nominal external pressure Δp (3)	Pa	100	100	100	100	100	100	100
Useful static supply pressure	Pa	360	520	1000	1100	900	1440	1500
Useful static recovery pressure	Pa	360	520	1000	1100	900	1440	1500
Supplied internal pressure drop Δps int.	Pa	269	262	276	222	216	240	241
Recovered internal pressure drop Δps int.	Pa	272	265	280	225	219	243	244
Fans static efficiency (4)	%	64,5	65,5	62,8	64,1	67,2	64,7	65,8
Internal leakage (5)	%	< 3	< 3	< 3	< 3	< 3	< 3	< 3
External leakage	%	0,2	0,2	0,1	0,1	0,1	0,1	0,1
Air filter								
Expelled air filter	Type/n°							
Delivery air filter	Type/n°							
Delivery filter energy classification					D			
Recovery filter energy classification					D			

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

DIMENSIONS AND WEIGHTS



Size		07	09	12	15	17	21	24
Dimensions and weights								
A	mm	965	1285	1445	1765	2085	2405	2725
B	mm	895	1005	1375	1695	1855	2335	2665
C	mm	1375	1535	2045	2365	2365	3005	3005
Empty weight	kg	240	340	570	820	1010	1610	1980

Aermec reserves the right to make any modiÿcations deemed necessary.
All data is subject to change without notice. Aermec does not assume
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AIR CONDITIONING

The air handling units customized according to different needs of the installer to carry the best comfort and the best quality in civil commercial and industrial.

AIR HANDLING UNITS

			Air flow rate (m3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Compact air handling units					
	TVS	Air flow rate 800÷5200 m^3/h	800-5200	4,40-27,80	10,50-66,40	264
	TVH	Air flow rate 800÷5200 m^3/h	800-5200	4,70-29,30	11,60-73,90	273
	TS	Air flow rate 810÷4225 m^3/h	810-4225	4,39-24,93	8,89-52,44	282
	TA	Air flow rate 800÷5000 m^3/h	800-5000	4,2-39,6	3,9-72,8	286
	TN	Air flow rate 3000÷23000 m^3/h	3000-23000	12,6-127,8	14,7-277,3	291
	Modular air handling units					
	NCD	Air handling units	1134-79475	-	-	298
	SPL 025-130	For wellness areas	4000-13000	-	-	301
	SPL 160-250	For wellness areas	16000-25000	-	-	305
	Packaged ROOF-TOP units					
new	**RTG 060X-125X**	For medium crowding applications	-	57,7-128,1	58,1-124,6	308
	RTX N1-N8	For medium crowding applications	-	12,70-49,95	13,50-50,79	314
	RTX 09-16	For medium crowding applications	-	50-135	49-141	319
	RTX 17-23	For medium crowding applications	-	151-307	152-310	325
	RTY 01-10	For high crowding applications	-	30,2-133,6	29,3-137,9	330

TVS

Air handling unit

- **Centrifugal fan with EC motor**
- **Horizontal and vertical installation**
- **Available units with heat exchanger with 4-6 rows**
- **Large range of available static pressure**
- **Ductable unit**



DESCRIPTION

TVS it is a thermoventilation unit designed to guarantee high heads in small to medium-sized rooms with nominal air flow rates from 800 to 5200 m^3/h. As standard, it is suitable for 2-pipe systems, however the availability (as an accessory) of the secondary water coil, which can be installed inside the unit downstream of the main coil, makes it also suitable for 4-pipe systems. The unit is suitable for both horizontal installation in suspended ceilings and vertical installation on walls for greater versatility in use.

FEATURES

Structure

The supporting structure is made of galvanised steel sheet panels of suitable thickness. The panels are internally insulated with M1 fire reaction class insulation according to French standard NFP 92-501.
The bottom panels, which can be inspected, are of the sandwich type made of galvanised steel sheet with 15 mm thick polyurethane insulation (density 45 kg/m^3).
The particular formulation of the polyurethane foam provides the sandwich panels with reaction to fire class M1 according to NFP standard 92-501. The polyurethane foam was developed with precise specifications to achieve the exceptional value of GWP = 0 (Global Warming Potential), not contributing to the greenhouse effect.
The presence of sandwich type panels on the bottom of the machine enables to significantly reduce the noise outside the unit in typical horizontal suspended ceiling installations.
The unit is supplied with specific brackets for attaching it to the wall.

Heat exchanger coil

Heat exchanger made with copper pipes and aluminium louvers blocked by the mechanical expansion of the pipes.
The main heat exchanger can be 4 or 6-row.
The secondary heat exchanger, available as an accessory, is 2-row.

Hydraulic connections

The hydraulic connections are on the right and are made with female threaded connections, however male-male threaded sleeves, with air release valves, are supplied to facilitate hydraulic connections.
The side of the hydraulic connections can be reversed on site by turning the coil.

The definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).

Condensate drip

The galvanised steel condensate drip tray is thermally insulated and has a double drain on the right and left. The unused condensate drain must be sealed.

Ventilation group

The ventilation unit consists of double intake centrifugal fans with blades facing forwards.
The electric motor, directly coupled to the impeller, is of the EC type. The use of the EC motor allows significant energy savings when compared to traditional AC motors and a continuous control of the rotation speed, simplifying air flow rate calibration operations on site.
Except for the first two sizes, Sensorless fans with integrated flow control are installed, without the need for additional accessories.

Air filtration

Air filtration is provided, as standard, by 48 mm thick corrugated synthetic filters with Coarse 55% efficiency according to EN ISO 16890 (G4 according to EN 779) positioned in the intake.
The filters are easily accessible for servicing and cleaning. Extraction is carried out by pulling them out from below by removing the respective panel.

Electrical wiring

On the side of the hydraulic connections there is an electric box, with IP55 protection rating, for connecting power and the 0-10V control signal or a potentiometer of the ventilation unit.
In the case of reversing the side of the hydraulic connections, there is no need to reverse the position of the electrical connections.

VENTILATION EFFICIENCY

All fans in the range TVS use an EC motor that, operating without slip losses, consumes less energy than conventional AC motors.
This applies to all speeds, i.e. also to partial load operation. The EC motor therefore uses less energy than the AC motor under all operating conditions

and has a significantly higher level of efficiency of the drive system (motor and control).
In addition, continuous speed control via the 0-10V signal allows the air flow rate to be varied, and the static pressure can be adapted to the system's pressure drop, making unit start-up particularly easy.

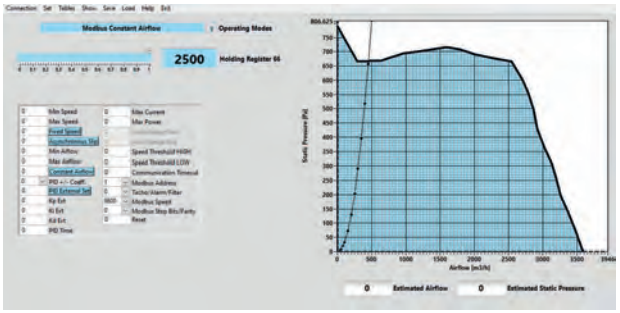


Fans in sizes from TVS204 to TVS526 use an innovative "driver" that provides advanced functions that go far beyond simple speed control via the 0-10V signal (factory setting) and monitoring of operating limits to enable safe operation.

In fact, advanced operating modes can be activated through the use of free PC software, an RS485 interface cable and a commercially available USB to RS485 converter.
Particularly innovative is the operating mode with constant flow rate control. The air flow rate can be varied via an analogue 0-10V signal or the desired value can be set via the dedicated software.

Sensorless constant flow rate

Sensorless constant flow rate control is performed without the use of pressure probes.
The driver determines the operating point by measuring the rotational speed and input power of the fan and then adjusts the rotational speed to maintain the set value of the air flow rate within a predetermined range.
This control system can compensate for a change in system pressure loss or a change in unit pressure loss due to e.g. filter fouling.

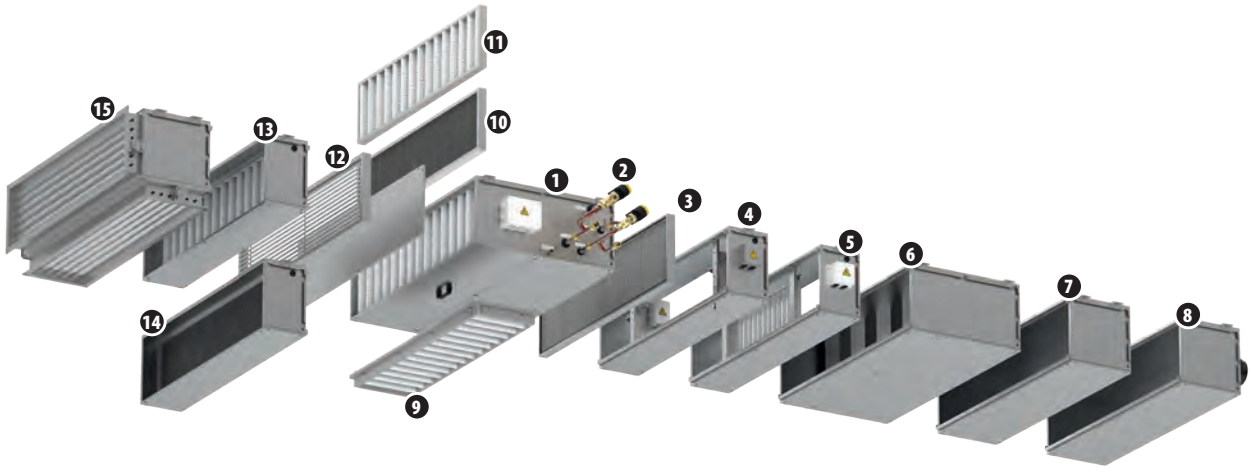


CONFIGURATOR

ACCESSORIES

BS2x: 2 row water coil: 2-row water coil for 4-pipe system, located internally, downstream of the main coil. The threaded sleeves for the hydraulic connections and the air vent valve are supplied.
F7x: filter with ePM1 50% efficiency: Filter with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be placed inside the unit in place of the standard filter.
F7x: filter with ePM1 80% efficiency: Filter with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be placed inside the unit in place of the standard filter.
SMBEx: Electric coil module with double safety thermostat (manual and automatic) to be installed on the unit's flow side. Not compatible for vertical installation.
SMF7x: Filter module with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.
SMF9x: Filter module with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.
SM2Sx: Mixing chamber module complete with two galvanised steel calibration dampers to be positioned at the intake of the unit. The damper pins are equipped with an easily removable hand control.
SMLFx: Module consisting of state-of-the-art devices with UV germicidal lamp with photocatalytic effect for active disinfection. To be placed at the discharge of the unit. The complete elimination of germs, bacteria and viruses cannot be achieved by using SMLFx modules alone, but a reduction in microbial load means less exposure to infection.
FAIx: Filter holder flange to allow intake in a direction perpendicular to the air flow through the unit. The use of the flange does not allow the installation of other accessories or the ducting of the unit to the intake.
SERx: Galvanised steel damper to be installed on the intake or flow side of the unit. The damper pin is equipped with an easily removable hand control.
GRAx: Natural anodised aluminium intake grid with fixed louvers inclined at 45°. To be installed at the intake of the unit via the supplied flange.
GRMx: Natural anodised aluminium flow grille with two rows of adjustable louvers. To be installed on the unit's flow side via the flange supplied.
V2Vx for main and secondary coil: 2-way valve for main and secondary coil.
V3Vx for main and secondary heat exchanger: 3-way valve for main and secondary coil.
AV24F - 24V / ON-OFF actuator for main and secondary coil: 24V / ON-OFF actuator for main and secondary coil.
AV24FM - 24V / ON-OFF - 0-10V actuator for main and secondary coil: Actuator with 24V power supply for ON-OFF or modulating 0-10V control of 2-way and 3-way main and secondary coil valves.
AV24M - 24V / 0-10V actuator for main and secondary coil: Actuator with 24V power supply for modulating 0-10V control of 2-way and 3-way main and secondary coil valves.
GT2x - 2-way valve tube assembly for main coil: Hose assembly and hydraulic fittings for connecting the 2-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
GT2Px - 2-way valve hose assembly for secondary coil: Hose assembly and hydraulic fittings for connecting the 2-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
GT3x - 3-way valve hose assembly for main coil: Hose assembly and hydraulic fittings for connecting the 3-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
GT3Px - 3-way valve hose assembly for secondary coil: Hose assembly and hydraulic fittings for connecting the 3-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
PVV: Potentiometer for fan speed control. The +10V signal is available directly on the electrical connection box located outside the unit.
SMSSx - Silencer baffles module: Module consisting of rock wool silencing baffles covered with polyethylene film and protective mesh to prevent flaking. To be installed on the flow and/or intake side of the unit.
SPCx: Closed plenum to be positioned at the flow or intake of the unit. Depending on the opening of the flow/intake hole, the accessory allows flow/intake in both longitudinal and perpendicular directions to the air flow through the unit.
SPMx: Plenum with circular flows to be positioned at the flow and/or intake of the unit. The multi-diameter (200mm, 180mm, 150mm) circular plastic

couplings allow the connection of circular ducts. Flow/intake is allowed in the longitudinal direction of the air flow through the unit.



Key:

1	**TVS**	6	**SMSS**	12	**GRA**
2	**Valvola (V3V, AV24,GT3, GT3P)**	7	**SPC**	13	**SMF9**
3	**GRM**	8	**SPM**	14	**SMF7**
4	**SMLF**	9	**FAI**	15	**SM2S**
5	**SMBE**	10	**F7**		
		11	**F9**		

ACCESSORIES COMPATIBILITY

Control

Potentiometer for fan speed control

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
PVV	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Water valves

2 way valve kit

	TVS084	TVS154	TVS204	TVS274	TVS344	TVS404	TVS524
Main coil							
2 way valve	V2V2	V2V3	V2V4	V2V5	V2V5	V2V6	V2V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT21	GT21	GT22	GT23	GT23	GT24	GT24
Secondary coil							
2 way valve	V2V1	V2V1	V2V4	V2V4	V2V4	V2V5	V2V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT2P1	GT2P1	GT2P2	GT2P2	GT2P2	GT2P3	GT2P3

	TVS086	TVS156	TVS206	TVS276	TVS346	TVS406	TVS526
Main coil							
2 way valve	V2V2	V2V3	V2V4	V2V5	V2V5	V2V6	V2V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT21	GT21	GT22	GT23	GT23	GT24	GT24
Secondary coil							
2 way valve	V2V1	V2V1	V2V4	V2V4	V2V4	V2V5	V2V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT2P1	GT2P1	GT2P2	GT2P2	GT2P2	GT2P3	GT2P3

Table 3 way valve kit

	TVS084	TVS154	TVS204	TVS274	TVS344	TVS404	TVS524
Main coil							
Three-way valve	V3V2	V3V2	V3V4	V3V5	V3V5	V3V6	V3V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT31	GT31	GT32	GT33	GT33	GT34	GT34
Secondary coil							
Three-way valve	V3V1	V3V1	V3V4	V3V4	V3V4	V3V5	V3V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT3P1	GT3P1	GT3P2	GT3P2	GT3P2	GT3P3	GT3P3

	TVS086	TVS156	TVS206	TVS276	TVS346	TVS406	TVS526
Main coil							
Three-way valve	V3V2	V3V2	V3V4	V3V5	V3V5	V3V6	V3V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT31	GT31	GT32	GT33	GT33	GT34	GT34
Secondary coil							
Three-way valve	V3V1	V3V1	V3V4	V3V4	V3V4	V3V5	V3V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT3P1	GT3P1	GT3P2	GT3P2	GT3P2	GT3P3	GT3P3

Heating only additional coil

2 row water coil

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
BS21	•	•												
BS22			•	•										
BS23					•	•								
BS24							•	•	•	•				
BS25											•	•	•	•

Electric coil module

2-stage electric coil module

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SMBE1 (1)	•	•												
SMBE2 (1)			•	•										
SMBE3 (1)					•	•								
SMBE4 (1)							•	•	•	•				
SMBE5 (1)											•	•	•	•

(1) Module not compatible for vertical installation.

Installation accessories

Filter module with ePM1 50% efficiency

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SMF71	•	•												
SMF72			•	•										
SMF73					•	•								
SMF74							•	•	•	•				
SMF75											•	•	•	•

Filter module with ePM1 80% efficiency

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SMF91	•	•												
SMF92			•	•										
SMF93					•	•								
SMF94							•	•	•	•				
SMF95											•	•	•	•

Silencer baffles module

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SMSS1	•	•												
SMSS2			•	•										
SMSS3					•	•								
SMSS4							•	•	•	•				
SMSS5											•	•	•	•

Photocatalytic device module

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SMLF1	•	•												
SMLF2			•	•										
SMLF3					•	•								
SMLF4							•	•	•	•				
SMLF5											•	•	•	•

Mixing chamber module complete with two calibration dampers

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SM2S1	•	•												
SM2S2			•	•										
SM2S3					•	•								
SM2S4							•	•	•	•				
SM2S5											•	•	•	•

Closed plenum

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SPC1	•	•												
SPC2			•	•										
SPC3					•	•								
SPC4							•	•	•	•				
SPC5											•	•	•	•

Plenum with circular deliveries

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
SPM1	•	•												
SPM2			•	•										
SPM3					•	•								
SPM4							•	•	•	•				
SPM5											•	•	•	•

Table Filter flange

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
FAI1	•	•												
FAI2			•	•										
FAI3					•	•								
FAI4							•	•	•	•				
FAI5											•	•	•	•

Galvanised steel dampers

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS524	TVS526
SER1	•	•										
SER2			•	•								
SER3					•	•						
SER4							•	•	•	•		
SER5											•	•

Alluminium Intake grids

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
GRA1	•	•												
GRA2			•	•										
GRA3					•	•								
GRA4							•	•	•	•				
GRA5											•	•	•	•

Alluminium delivery grille

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
GRM1	•	•												
GRM2			•	•										
GRM3					•	•								
GRM4							•	•	•	•				
GRM5											•	•	•	•

Filter with ePM1 50% efficiency

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
F71	•	•												
F72			•	•										
F73					•	•								
F74							•	•	•	•				
F75											•	•	•	•

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
F71	•	•												
F72			•	•										
F73					•	•								
F74							•	•	•	•				
F75											•	•	•	•

Filter with ePM1 80% efficiency

Accessory	TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
F91	•	•												
F92			•	•										
F93					•	•								
F94							•	•	•	•				
F95											•	•	•	•

4-ROW COIL UNIT PERFORMANCE DATA

Units designed to operate with all recirculating air or maximum 10% of external air.

		TVS084	TVS154	TVS204	TVS274	TVS344	TVS404	TVS524
Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)								
Heating capacity	kW	10,50	18,80	25,10	31,90	41,40	54,20	66,40
Water flow rate	l/h	901	1615	2157	2738	3557	4659	5705
Pressure drop	kPa	26	25	37	23	41	38	55
Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)								
Heating capacity	kW	5,20	9,30	12,40	15,80	20,50	26,80	32,70
Water flow rate	l/h	896	1600	2139	2718	3525	4610	5640
Pressure drop	kPa	28	27	40	24	44	40	58
Heating performance 65 °C /55 °C - Secondary coil 4-pipe system (3)								
Heating capacity	kW	4,40	8,10	14,40	18,40	23,60	28,30	32,90
Water flow rate	l/h	380	697	1235	1579	2031	2433	2828
Pressure drop	kPa	6	26	18	20	32	19	25
Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)								
Cooling capacity	kW	4,40	7,70	10,90	13,20	17,90	23,20	27,80
Sensible cooling capacity	kW	3,30	6,00	8,20	10,40	13,60	17,10	20,70
Water flow rate	l/h	753	1322	1870	2266	3078	3979	4766
Pressure drop	kPa	22	20	33	20	36	34	46
Fan								
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Fan motor	type	EC	EC	EC	EC	EC	EC	EC
Number	no.	1	2	1	1	2	2	2
Nominal air flow rate	m^3/h	800	1500	2000	2600	3400	4000	5200
Nominal useful head	Pa	150	150	200	200	200	200	200
Maximum useful head (2-pipes) (5)	Pa	213	242	351	361	380	403	414
Maximum useful head (4-pipes) (5)	Pa	194	217	321	337	342	377	375
Input power (2-pipes) (6)	W	199	358	545	825	826	998	1494
Input power (4 pipes) (6)	W	207	377	574	859	896	1044	1608
Sound data (7)								
Sound power level (inlet + radiated)	dB(A)	66,0	68,0	77,0	77,0	78,0	80,0	80,0
Sound power level (outlet)	dB(A)	66,0	68,0	74,0	76,0	74,0	77,0	78,0
Diametre hydraulic fittings								
Main heat exchanger	Ø	3/4" F	3/4" F	1" F	1" F	1" F	1" F	1" F
Secondary heat exchanger	Ø	1/2" F	1/2" F	3/4" F	3/4" F	3/4" F	3/4" F	3/4" F
Condensate discharge diameter	mm	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M
Power supply								
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Air filter								
Type	type	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)
Electric coil								
Electric coil capacity	kW	1,5 + 1,5	2,5 + 2,5	4 + 4	6 + 6	6 + 6	7,5 + 7,5	7,5 + 7,5
Stages	no.	2	2	2	2	2	2	2
Power supply		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz

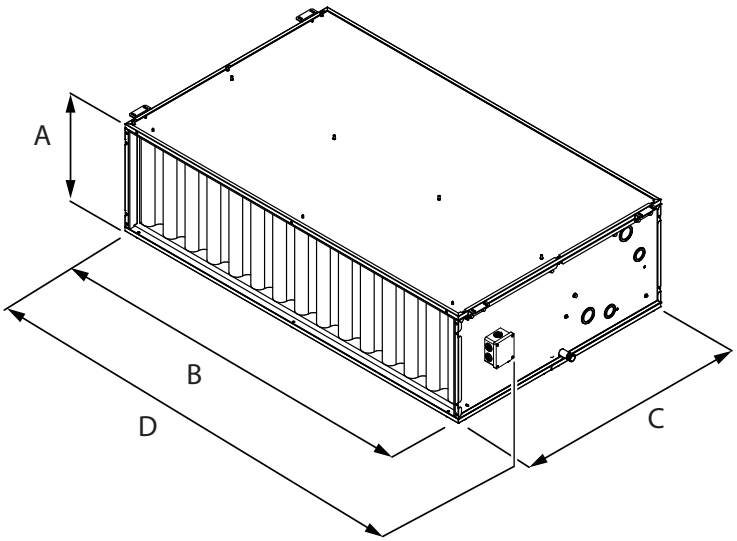
(1) Room air temperature 20°C d.b.; Water (in/out) 70 °C / 60 °C
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C
(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C
(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(5) Maximum high static pressure at nominal air flow rate, in heating mode
(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode
(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

6-ROW COIL UNIT PERFORMANCE DATA

		TVS086	TVS156	TVS206	TVS276	TVS346	TVS406	TVS526
Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)								
Heating capacity	kW	11,50	20,60	27,40	35,10	45,40	58,30	72,00
Water flow rate	l/h	986	1774	2359	3017	3900	5009	6189
Pressure drop	kPa	40	27	30	23	42	31	45
Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)								
Heating capacity	kW	5,70	10,20	13,60	17,30	22,50	28,90	35,80
Water flow rate	l/h	978	1762	2342	2985	3876	4980	6166
Pressure drop	kPa	42	29	32	25	44	33	48
Heating performance 65 °C /55 °C - Secondary coil 4-pipe system (3)								
Heating capacity	kW	4,40	8,10	14,40	18,40	23,60	28,30	32,90
Water flow rate	l/h	380	697	1235	1579	2031	2433	2828
Pressure drop	kPa	6	26	18	20	32	19	25
Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)								
Cooling capacity	kW	5,30	9,00	12,30	15,40	20,70	25,90	31,60
Sensible cooling capacity	kW	3,80	6,70	9,00	11,60	15,00	18,70	22,90
Water flow rate	l/h	912	1538	2104	2649	3554	4443	5427
Pressure drop	kPa	39	24	28	23	41	30	42
Fan								
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Fan motor	type	EC	EC	EC	EC	EC	EC	EC
Number	no.	1	2	1	1	2	2	2
Nominal air flow rate	m^3/h	800	1500	2000	2600	3400	4000	5200
Nominal useful head	Pa	150	150	200	200	200	200	200
Maximum useful head (2-pipes) (5)	Pa	204	230	338	351	364	392	397
Maximum useful head (4-pipes) (5)	Pa	185	205	308	327	326	366	358
Input power (2-pipes) (6)	W	203	368	557	839	856	1016	1544
Input power (4 pipes) (6)	W	211	387	588	873	932	1064	1658
Sound data (7)								
Sound power level (inlet + radiated)	dB(A)	67,0	69,0	78,0	77,0	78,0	81,0	80,0
Sound power level (outlet)	dB(A)	67,0	69,0	74,0	77,0	74,0	78,0	79,0
Diametre hydraulic fittings								
Main heat exchanger	Ø	3/4" F	3/4" F	1" F	1" F	1" F	1" F	1" F
Secondary heat exchanger	Ø	1/2" F	1/2" F	3/4" F	3/4" F	3/4" F	3/4" F	3/4" F
Condensate discharge diameter	mm	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M	1/2" M
Power supply								
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Air filter								
Type	type	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)
Electric coil								
Electric coil capacity	kW	1,5 + 1,5	2,5 + 2,5	4 + 4	6 + 6	6 + 6	7,5 + 7,5	7,5 + 7,5
Stages	no.	2	2	2	2	2	2	2
Power supply		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz

(1) Room air temperature 20°C d.b.; Water (in/out) 70 °C / 60 °C
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C
(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C
(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(5) Maximum high static pressure at nominal air flow rate, in heating mode
(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode
(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

DIMENSIONS



Unit for horizontal installation

		TVS084	TVS086	TVS154	TVS156	TVS204	TVS206	TVS274	TVS276	TVS344	TVS346	TVS404	TVS406	TVS524	TVS526
Dimensions and weights															
A	mm	300	300	300	300	390	390	390	390	390	390	390	390	390	390
B	mm	700	700	1000	1000	1000	1000	1400	1400	1400	1400	2000	2000	2000	2000
C	mm	700	700	700	700	850	850	850	850	850	850	850	850	850	850
D	mm	770	770	1070	1070	1070	1070	1470	1470	1470	1470	2070	2070	2070	2070
Net weight	kg	27,0	28,0	42,0	44,0	56,0	59,0	79,0	83,0	89,0	94,0	119,0	125,0	120,0	126,0

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TVH

Air handling unit

- Plug fan with EC motor
- Horizontal installation only
- Available units with heat exchanger with 4-6 rows
- Large range of available static pressure
- Ductable unit
- 15 mm thick sandwich panelling



DESCRIPTION

TVH it is a thermoventilation unit designed to guarantee high heads in small to medium-sized rooms with nominal air flow rates from 800 to 5200 m^3/h. As standard, it is suitable for 2-pipe systems, however the availability (as an accessory) of the secondary water coil, which can be installed inside the unit downstream of the main coil, makes it also suitable for 4-pipe systems.
The unit is suitable for horizontal installation.

FEATURES

Structure

The load-bearing structure is made of sandwich-type panels made of galvanised steel sheet with 15 mm thick polyurethane insulation (density 45 kg/m^3).
The particular formulation of the polyurethane foam provides the sandwich panels with reaction to fire class M1 according to NFP standard 92-501. The polyurethane foam was developed with precise specifications to achieve the exceptional value of GWP = 0 (Global Warming Potential), not contributing to the greenhouse effect.
The presence of sandwich type panels enables to significantly reduce the noise outside the unit in typical horizontal suspended ceiling installations.
Specific brackets supplied with the unit make it easier to secure it to the wall.

Heat exchanger coil

Heat exchanger made with copper pipes and aluminium louvers blocked by the mechanical expansion of the pipes.
The main heat exchanger can be 4 or 6-row.
The secondary heat exchanger, available as an accessory, is 2-row.

Hydraulic connections

The hydraulic connections are on the right and are made with female threaded connections, however male-male threaded sleeves, with air release valves, are supplied to facilitate hydraulic connections.
The side of the hydraulic connections can be reversed on site by turning the coil.

The definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).

Condensate drip

The galvanised steel condensate drip tray is thermally insulated and has a double drain on the right and left. The unused condensate drain must be sealed.

Ventilation group

The ventilation unit consists of plug fans with reversed blades. The use of plug fans allows a reduction in input power compared to fans with forward-facing blades.
The electric motor, directly coupled to the impeller, is of the EC type.
The use of the EC motor allows significant energy savings when compared to traditional AC motors and a continuous control of the rotation speed, simplifying air flow rate calibration operations on site.

Air filtration

Air filtration is provided, as standard, by 48 mm thick corrugated synthetic filters with Coarse 55% efficiency according to EN ISO 16890 (G4 according to EN 779) positioned in the intake.
The filters are easily accessible for servicing and cleaning. Extraction is carried out by pulling them out from below by removing the respective panel.

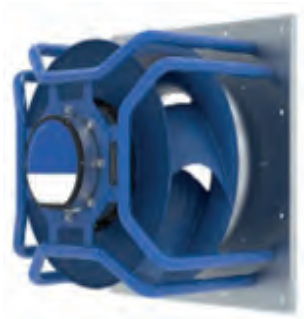
Electrical wiring

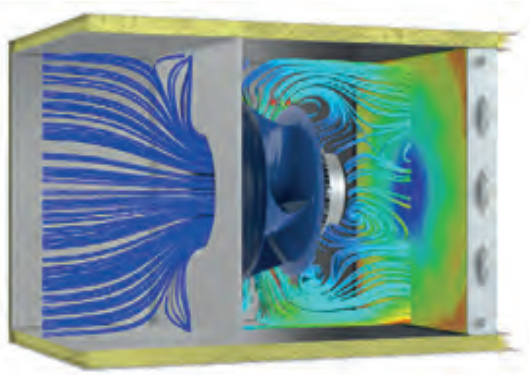
On the side of the hydraulic connections there is an electric box, with IP55 protection rating, for connecting power and the 0-10V control signal or a potentiometer of the ventilation unit.
In the case of reversing the side of the hydraulic connections, there is no need to reverse the position of the electrical connections.

VENTILATION EFFICIENCY

All fans in the range TVH use an EC motor, which, due to the special efficiency of the system, consumes less energy than conventional AC motors. This applies to all speeds, i.e. also to partial load operation.
In addition, continuous speed control via the 0-10V signal allows the air flow rate to be varied, and the static pressure can be adapted to the system's pressure drop, allowing a perfect machine - system match.

The innovative mixed-flow geometry of the composite impeller allows a particularly homogenous aeraulic distribution over the next component.
The positive effect of homogeneous aeraulic distribution is reflected in a decrease in pressure drops and an increase in the cooling efficiency of the heat exchange coil located downstream of the fan.
For the same processed air flow rate there is therefore less electric input power and a higher cooling efficiency.
In addition, by means of the pressure probe (relying on an external controller) or the flow rate/pressure regulator, which are supplied as accessories, it is possible to carry out ventilation control in constant flow rate or constant pressure on the flow channel.





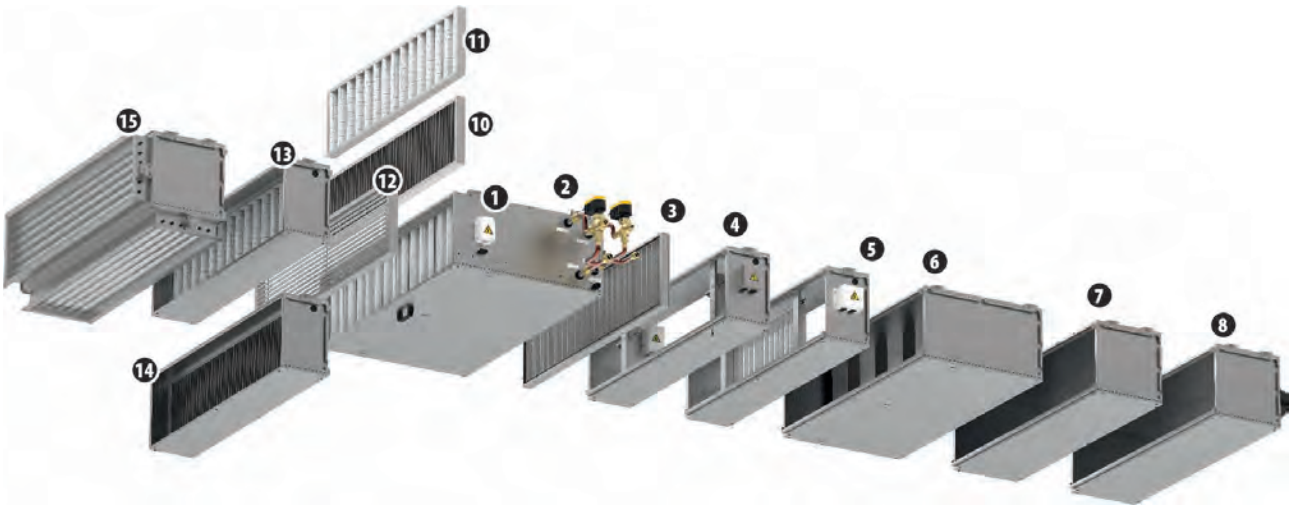
CONFIGURATOR

Field	Description
1,2,3	TVH
4,5	Size 08, 15, 20, 27, 34, 40, 52
6	Version
4	4-row finned pack main heat exchanger with right-hand connections
6	6-row finned pack main heat exchanger with right-hand connections

ACCESSORIES

BS2x: 2 row water coil: 2-row water coil for 4-pipe system, located internally, downstream of the main coil. The threaded sleeves for the hydraulic connections and the air vent valve are supplied.
F7x: filter with ePM1 50% efficiency: Filter with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be placed inside the unit in place of the standard filter.
F7x: filter with ePM1 80% efficiency: Filter with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be placed inside the unit in place of the standard filter.
SERx: Galvanised steel damper to be installed on the intake or flow side of the unit. The damper pin is equipped with an easily removable hand control.
GRAx: Natural anodised aluminium intake grid with fixed louvers inclined at 45°. To be installed at the intake of the unit via the supplied flange.
GRMx: Natural anodised aluminium flow grille with two rows of adjustable louvers. To be installed on the unit's flow side via the flange supplied.
V2Vx for main and secondary coil: 2-way valve for main and secondary coil.
V3Vx for main and secondary heat exchanger: 3-way valve for main and secondary coil.
AV24F - 24V / ON-OFF actuator for main and secondary coil: 24V / ON-OFF actuator for main and secondary coil.
AV24FM - 24V / ON-OFF - 0-10V actuator for main and secondary coil: Actuator with 24V power supply for ON-OFF or modulating 0-10V control of 2-way and 3-way main and secondary coil valves.
AV24M - 24V / 0-10V actuator for main and secondary coil: Actuator with 24V power supply for modulating 0-10V control of 2-way and 3-way main and secondary coil valves.
GT2x - 2-way valve tube assembly for main coil: Hose assembly and hydraulic fittings for connecting the 2-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
GT2Px - 2-way valve hose assembly for secondary coil: Hose assembly and hydraulic fittings for connecting the 2-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
GT3x - 3-way valve hose assembly for main coil: Hose assembly and hydraulic fittings for connecting the 3-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
GT3Px - 3-way valve hose assembly for secondary coil: Hose assembly and hydraulic fittings for connecting the 3-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).
PVV: Potentiometer for fan speed control. The +10V signal is available directly on the electrical connection box located outside the unit.
HMBEx: Electric coil module with double safety thermostat (manual and automatic) to be installed on the unit's flow side.
HMF7x: Filter module with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.
HMF9x: Filter module with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.
HMLFx: Module consisting of state-of-the-art devices with UV germicidal lamp with photocatalytic effect for active disinfection. To be placed at the discharge of the unit. The complete elimination of germs, bacteria and viruses cannot be achieved by using SMLFx modules alone, but a reduction in microbial load means less exposure to infection.
HM2Sx: Mixing chamber module complete with two galvanised steel calibration dampers to be positioned at the intake of the unit. The damper pins are equipped with an easily removable hand control.
HMSSx - Silencer baffles module: Module consisting of rock wool silencing baffles covered with polyethylene film and protective mesh to prevent flaking. To be installed on the flow and/or intake side of the unit.
RPx: Regulator to control ventilation in constant flow rate or constant pressure on the flow duct. An external regulator must be provided for thermoregulation.
SPD: Pressure probe for constant flow rate or constant pressure control on the flow duct. In order to carry out the control, the pressure probe must be controlled by an external regulator.
SPF: Differential pressure switch to signal filter fouling status.
HPCx: Closed plenum to be positioned at the flow or intake of the unit. Depending on the opening of the flow/intake hole, the accessory allows

flow/intake in both longitudinal and perpendicular directions to the air flow through the unit.
HPMx: Plenum with circular flows to be positioned at the flow and/or intake of the unit. The multi-diameter (200mm, 180mm, 150mm) circular plastic couplings allow the connection of circular ducts. Flow/intake is allowed in the longitudinal direction of the air flow through the unit.
SCS: Servocontrol with 24V power supply for 0-10V modulating control of the SER damper or the HM2S mixing chamber dampers.



Key:

1	**TVH**	6	**HMSS**	12	**GRA**
2	**Valvola (V3V, AV24,GT3, GT3P)**	7	**HPC**	13	**HMF9**
3	**GRM**	8	**HPM**	14	**HMF7**
4	**HMLF**	9	**FAI**	15	**HM2S**
5	**HMBE**	10	**F7**		
		11	**F9**		

ACCESSORIES COMPATIBILITY

Control

Potentiometer for fan speed control

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
PVV	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Water valves

2 way valve kit

	TVH084	TVH154	TVH204	TVH274	TVH344	TVH404	TVH524
Main coil							
2 way valve	V2V2	V2V3	V2V4	V2V5	V2V5	V2V6	V2V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT21	GT21	GT22	GT23	GT23	GT24	GT24
Secondary coil							
2 way valve	V2V1	V2V1	V2V4	V2V4	V2V4	V2V5	V2V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT2P1	GT2P1	GT2P2	GT2P2	GT2P2	GT2P3	GT2P3

	TVH086	TVH156	TVH206	TVH276	TVH346	TVH406	TVH526
Main coil							
2 way valve	V2V2	V2V3	V2V4	V2V5	V2V5	V2V6	V2V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT21	GT21	GT22	GT23	GT23	GT24	GT24
Secondary coil							
2 way valve	V2V1	V2V1	V2V4	V2V4	V2V4	V2V5	V2V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT2P1	GT2P1	GT2P2	GT2P2	GT2P2	GT2P3	GT2P3

Table 3 way valve kit

	TVH084	TVH154	TVH204	TVH274	TVH344	TVH404	TVH524
Main coil							
Three-way valve	V3V2	V3V3	V3V4	V3V5	V3V5	V3V6	V3V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT31	GT31	GT32	GT33	GT33	GT34	GT34
Secondary coil							
Three-way valve	V3V1	V3V1	V3V4	V3V4	V3V4	V3V5	V3V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT3P1	GT3P1	GT3P2	GT3P2	GT3P2	GT3P3	GT3P3

	TVH086	TVH156	TVH206	TVH276	TVH346	TVH406	TVH526
Main coil							
Three-way valve	V3V2	V3V3	V3V4	V3V5	V3V5	V3V6	V3V6
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT31	GT31	GT32	GT33	GT33	GT34	GT34
Secondary coil							
Three-way valve	V3V1	V3V1	V3V4	V3V4	V3V4	V3V5	V3V5
Actuator	AV24F/AV24M	AV24F/AV24M	AV24FM	AV24FM	AV24FM	AV24FM	AV24FM
Pipe assembly	GT3P1	GT3P1	GT3P2	GT3P2	GT3P2	GT3P3	GT3P3

Heating only additional coil

2 row water coil

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
BS21	•	•												
BS22			•	•										
BS23					•	•								
BS24							•	•	•	•				
BS25											•	•	•	•

Electric coil module

2-stage electric coil module

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
HMBE1	•	•												
HMBE2			•	•										
HMBE3					•	•								
HMBE4							•	•	•	•				
HMBE5											•	•	•	•

Installation accessories

Filter module with ePM1 50% efficiency

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
HMF71	•	•												
HMF72			•	•										
HMF73					•	•								
HMF74							•	•	•	•				
HMF75											•	•	•	•

Filter module with ePM1 80% efficiency

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
HMF91	•	•												
HMF92			•	•										
HMF93					•	•								
HMF94							•	•	•	•				
HMF95											•	•	•	•

Silencer baffles module

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
HMSS1	•	•												
HMSS2			•	•										
HMSS3					•	•								
HMSS4							•	•	•	•				
HMSS5											•	•	•	•

Photocatalytic device module

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH526
HMLF1	•	•											
HMLF2			•	•									
HMLF3					•	•							
HMLF4							•	•	•	•			
HMLF5											•	•	•

Mixing chamber module complete with two calibration dampers

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH526
HM2S1	•	•											
HM2S2			•	•									
HM2S3					•	•							
HM2S4							•	•	•	•			
HM2S5											•	•	•

Closed plenum

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
HPC1	•	•												
HPC2			•	•										
HPC3					•	•								
HPC4							•	•	•	•				
HPC5											•	•	•	•

Plenum with circular deliveries

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
HPM1	•	•												
HPM2			•	•										
HPM3					•	•								
HPM4							•	•	•	•				
HPM5											•	•	•	•

Galvanised steel dampers

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
SER1	•	•												
SER2			•	•										
SER3					•	•								
SER4							•	•	•	•				
SER5											•	•	•	•

Alluminium Intake grids

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
GRA1	•	•												
GRA2			•	•										
GRA3					•	•								
GRA4							•	•	•	•				
GRA5											•	•	•	•

Alluminium delivery grille

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
GRM1	•	•												
GRM2			•	•										
GRM3					•	•								
GRM4							•	•	•	•				
GRM5											•	•	•	•

Filter with ePM1 50% efficiency

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
F71	•	•												
F72			•	•										
F73					•	•								
F74							•	•	•	•				
F75											•	•	•	•

Filter with ePM1 80% efficiency

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
F91	•	•												
F92			•	•										
F93					•	•								
F94							•	•	•	•				
F95											•	•	•	•

Flow rate adjuster

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
RP1	•	•	•	•										
RP2					•	•	•	•	•	•	•	•	•	•

Differential pressure probe

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
SPD	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Filter fouling pressure switch

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
SPF	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Servocontrol

Accessory	TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
SCS	•	•	•	•	•	•	•	•	•	•	•	•	•	•

4-ROW COIL UNIT PERFORMANCE DATA

Units designed to operate with all recirculating air or maximum 10% of external air.

		TVH084	TVH154	TVH204	TVH274	TVH344	TVH404	TVH524
Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)								
Heating capacity	kW	11,60	20,80	28,50	36,60	47,10	60,30	73,90
Water flow rate	l/h	994	1787	2454	3150	4054	5189	6353
Pressure drop	kPa	31	31	48	31	53	42	60
Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)								
Heating capacity	kW	5,70	10,30	14,10	18,20	23,40	29,80	36,50
Water flow rate	l/h	985	1769	2431	3123	4017	5125	6270
Pressure drop	kPa	33	32	51	33	56	45	64
Heating performance 65 °C /55 °C - Secondary coil 4-pipe system (3)								
Heating capacity	kW	4,40	8,10	14,40	18,40	23,60	28,30	32,90
Water flow rate	l/h	380	697	1235	1579	2031	2433	2828
Pressure drop	kPa	6	26	18	20	32	19	25
Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)								
Cooling capacity	kW	4,70	8,30	11,90	14,30	19,30	24,90	29,30
Sensible cooling capacity	kW	3,50	6,20	8,50	10,80	14,10	17,60	21,40
Water flow rate	l/h	815	1422	2038	2447	3316	4267	5032
Pressure drop	kPa	27	25	41	23	44	38	51
Fan								
Type	type	Plug Fan	Plug Fan	Plug Fan	Plug Fan	Plug Fan	Plug Fan	Plug Fan
Fan motor	type	EC	EC	EC	EC	EC	EC	EC
Number	no.	1	2	1	1	2	2	2
Nominal air flow rate	m^3/h	800	1500	2000	2600	3400	4000	5200
Nominal useful head	Pa	150	150	200	200	200	200	200
Maximum useful head (2-pipes) (5)	Pa	202	232	438	536	540	443	521
Maximum useful head (4-pipes) (5)	Pa	183	207	408	512	502	417	482
Input power (2-pipes) (6)	W	151	287	313	491	533	620	1006
Input power (4 pipes) (6)	W	159	305	335	511	581	656	1074
Sound data (7)								
Sound power level (inlet + radiated)	dB(A)	74,0	74,0	70,0	76,0	72,0	73,0	79,0
Sound power level (outlet)	dB(A)	72,0	75,0	72,0	78,0	73,0	75,0	81,0
Diametre hydraulic fittings								
Main heat exchanger	Ø	3/4" F	3/4" F	1" F	1" F	1" F	1" F	1" F
Secondary heat exchanger	Ø	1/2" F	1/2" F	3/4" F	3/4" F	3/4" F	3/4" F	3/4" F
Condensate discharge diameter	mm	3/4" M	3/4" M	3/4" M	3/4" M	3/4" M	3/4" M	3/4" M
Power supply								
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Air filter								
Type	type	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)
Electric coil								
Electric coil capacity	kW	1,5 + 1,5	2,5 + 2,5	4 + 4	6 + 6	6 + 6	7,5 + 7,5	7,5 + 7,5
Stages	no.	2	2	2	2	2	2	2
Power supply		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz

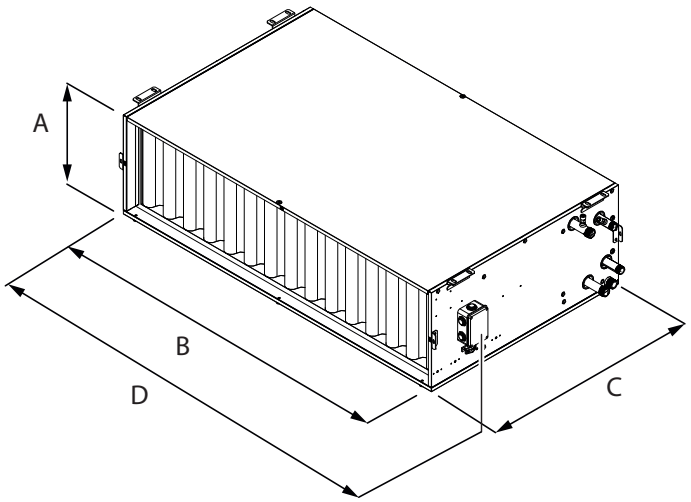
(1) Room air temperature 20°C d.b.; Water (in/out) 70 °C / 60 °C
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C
(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C
(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(5) Maximum high static pressure at nominal air flow rate, in heating mode
(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode
(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

6-ROW COIL UNIT PERFORMANCE DATA

		TVH086	TVH156	TVH206	TVH276	TVH346	TVH406	TVH526
Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)								
Heating capacity	kW	12,40	22,60	30,80	39,40	51,30	64,90	80,10
Water flow rate	l/h	1070	1941	2652	3391	4407	5578	6889
Pressure drop	kPa	54	32	37	31	53	34	50
Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)								
Heating capacity	kW	6,20	11,20	15,30	19,60	25,50	32,20	39,90
Water flow rate	l/h	1063	1923	2630	3369	4377	5537	6855
Pressure drop	kPa	58	34	40	33	57	37	53
Heating performance 65 °C /55 °C - Secondary coil 4-pipe system (3)								
Heating capacity	kW	4,40	8,10	14,40	18,40	23,60	28,30	32,90
Water flow rate	l/h	380	697	1235	1579	2031	2433	2828
Pressure drop	kPa	6	26	18	20	32	19	25
Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)								
Cooling capacity	kW	5,60	9,70	13,60	16,70	22,30	28,10	33,70
Sensible cooling capacity	kW	4,00	6,90	9,50	12,10	15,80	19,60	24,00
Water flow rate	l/h	965	1666	2329	2862	3827	4819	5789
Pressure drop	kPa	46	30	36	26	49	34	47
Fan								
Type	type	Plug Fan	Plug Fan	Plug Fan	Plug Fan	Plug Fan	Plug Fan	Plug Fan
Fan motor	type	EC	EC	EC	EC	EC	EC	EC
Number	no.	1	2	1	1	2	2	2
Nominal air flow rate	m^3/h	800	1500	2000	2600	3400	4000	5200
Nominal useful head	Pa	150	150	200	200	200	200	200
Maximum useful head (2-pipes) (5)	Pa	193	219	425	525	524	432	505
Maximum useful head (4-pipes) (5)	Pa	174	194	395	501	486	406	466
Input power (2-pipes) (6)	W	155	297	322	500	555	635	1036
Input power (4 pipes) (6)	W	163	315	344	520	601	671	1102
Sound data (7)								
Sound power level (inlet + radiated)	dB(A)	74,0	75,0	70,0	76,0	73,0	73,0	79,0
Sound power level (outlet)	dB(A)	73,0	75,0	72,0	78,0	73,0	75,0	82,0
Diametre hydraulic fittings								
Main heat exchanger	Ø	3/4" F	3/4" F	1" F	1" F	1" F	1" F	1" F
Secondary heat exchanger	Ø	1/2" F	1/2" F	3/4" F	3/4" F	3/4" F	3/4" F	3/4" F
Condensate discharge diameter	mm	3/4" M	3/4" M	3/4" M	3/4" M	3/4" M	3/4" M	3/4" M
Power supply								
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz
Air filter								
Type	type	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)	Coarse 55% (G4)
Electric coil								
Electric coil capacity	kW	1,5 + 1,5	2,5 + 2,5	4 + 4	6 + 6	6 + 6	7,5 + 7,5	7,5 + 7,5
Stages	no.	2	2	2	2	2	2	2
Power supply		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz

(1) Room air temperature 20°C d.b.; Water (in/out) 70 °C / 60 °C
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C
(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C
(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(5) Maximum high static pressure at nominal air flow rate, in heating mode
(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode
(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

DIMENSIONS



Unit for horizontal installation

		TVH084	TVH086	TVH154	TVH156	TVH204	TVH206	TVH274	TVH276	TVH344	TVH346	TVH404	TVH406	TVH524	TVH526
Dimensions and weights															
A	mm	300	300	300	300	390	390	390	390	390	390	390	390	390	390
B	mm	700	700	1000	1000	1000	1000	1400	1400	1400	1400	2000	2000	2000	2000
C	mm	700	700	700	700	850	850	850	850	850	850	850	850	850	850
D	mm	758	758	1058	1058	1058	1058	1458	1458	1458	1458	2058	2058	2058	2058
Net weight	kg	30,0	31,0	43,0	45,0	55,0	58,0	69,0	73,0	80,0	85,0	110,0	116,0	110,0	116,0

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TS

Air handling unit

- **Very quiet**
- **Available units with heat exchanger with 3-4-6 rows**
- **Ductable units**



DESCRIPTION

The air-conditioning units of the TS series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

STRUCTURE

Case

Structure made of Galvanized steel 10/10 sheet steel and internally covered with sheets of polyethylene and polyester to obtain improved thermal and acoustic insulation.

Ventilation group

Statically and dynamically balanced centrifugal fans:

— Three-speed electrical motor with running capacitor permanently activated and internal thermal protection
— Transmission system relay card for each speed (excluding the models TS13 and TS16)
— Useful static pressure available for any canalisation

Heat exchanger coil

3, 4 or 6 row coils, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

Condensate drip

Condensate drip tray in stainless steel AISI 304 with insulation.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
FMT10: Electronic thermostat for fan coil in to 2/4 pipe systems.
PXAE: Electronic thermostat with thermostated or continuous ventilation.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
WMT16: Electronic thermostat with thermostated ventilation.
WMT16CV: Electronic thermostat with continuous ventilation.
TSBA: 2-row coil for post-heating, contained in a delivery installation plenum.
TSFA: Air filter class Coarse 50%
TSGA: Horizontal suction grille with fixed louvers to produce suction from below together with the TSPA accessory.
TSMX: Section that mixes the recirculating air and the external air. Calibration of the mix via the damper, motorisation is possible.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCTK: The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.
TSFM: Delivery flange with rectangular section.
VCTKM: The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

ACCESSORIES COMPATIBILITY

Control panels

Model	13	16	23	34	36	43	46	53	56	63	74	76
AER503IR (1)	•	•	•	•	•	•	•	•	•	•	•	•
FMT10	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	•	•	•	•	•	•	•	•	•	•	•	•
TX (3)	•	•	•	•	•	•	•	•	•	•	•	•
WMT10 (3)	•	•	•	•	•	•	•	•	•	•	•	•
WMT16 (3)	•	•	•	•	•	•	•	•	•	•	•	•
WMT16CV (3)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mount installation.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

2-row coil for post-heating

13	16	23	34	36	43	46	53	56	63	74	76
TSBA10	TSBA10	TSBA20/30	TSBA20/30	TSBA20/30	TSBA40	TSBA40	TSBA50	TSBA50	TSBA60/70	TSBA60/70	TSBA60/70

Air filter

13	16	23	34	36	43	46	53	56	63	74	76
TSFA10	TSFA10	TSFA20/30	TSFA20/30	TSFA20/30	TSFA40	TSFA40	TSFA50	TSFA50	TSFA60/70	TSFA60/70	TSFA60/70

Intake grids

13	16	23	34	36	43	46	53	56	63	74	76
TSGA10	TSGA10	TSGA20/40	TSGA20/40	TSGA20/40	TSGA20/40	TSGA20/40	TSGA50/70	TSGA50/70	TSGA50/70	TSGA50/70	TSGA50/70

Section that mixes

13	16	23	34	36	43	46	53	56	63	74	76
TSMX10	TSMX10	TSMX20/30	TSMX20/30	TSMX20/30	TSMX40	TSMX40	TSMX50	TSMX50	TSMX60/70	TSMX60/70	TSMX60/70

Plenum with suction

13	16	23	34	36	43	46	53	56	63	74	76
TSPA10	TSPA10	TSPA20/30	TSPA20/30	TSPA20/30	TSPA40	TSPA40	TSPA50	TSPA50	TSPA60/70	TSPA60/70	TSPA60/70

Delivery plenum

13	16	23	34	36	43	46	53	56	63	74	76
TSPM10	TSPM10	TSPM20/30	TSPM20/30	TSPM20/30	TSPM40	TSPM40	TSPM50	TSPM50	TSPM60/70	TSPM60/70	TSPM60/70

Delivery flange

13	16	23	34	36	43	46	53	56	63	74	76
TSFM10	TSFM10	TSFM20/30	TSFM20/30	TSFM20/30	TSFM40	TSFM40	TSFM50	TSFM50	TSFM60/70	TSFM60/70	TSFM60/70

2 way valve kit

13	16	23	34	36	43	46	53	56	63	74	76
VCT102	VCT102	VCT102	VCT102	VCT102	VCT202	VCT202	VCT202	VCT402	VCT402	VCT402P	VCT402P

3 way valve kit

13	16	23	34	36	43	46	53	56	63	74	76
VCT103	VCT103	VCT103	VCT103	VCT103	VCT203	VCT203	VCT203	VCT403	VCT403	VCT403P	VCT403P

Actuator VCTK 230V

13	16	23	34	36	43	46	53	56	63	74	76
VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK

Actuator 24V

13	16	23	34	36	43	46	53	56	63	74	76
VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM

PERFORMANCE SPECIFICATIONS

2-pipe

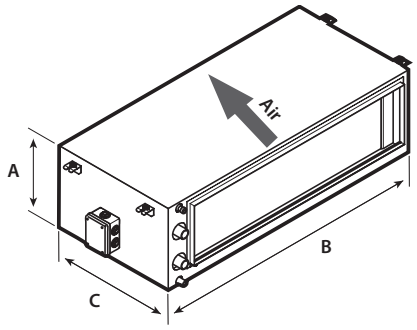
		TS13			TS16			TS23			TS34			TS36			TS43		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Cooling performance 7 °C / 12 °C (1)																			
Cooling capacity	kW	4,39	4,65	4,85	4,44	5,21	5,81	7,18	7,65	7,98	8,59	9,20	9,61	9,40	10,08	10,52	7,14	9,35	11,11
Sensible cooling capacity	kW	3,39	3,60	3,75	3,41	3,99	4,45	5,82	6,20	6,46	6,80	7,28	7,61	7,43	7,96	8,31	5,75	7,54	8,96
Water flow rate system side	l/h	754	800	835	764	896	999	1235	1315	1372	1478	1583	1653	1617	1733	1809	1227	1608	1912
Pressure drop system side	kPa	17	19	21	6	7	9	20	23	24	20	22	24	13	15	16	10	17	23
Heating performance 70 °C / 60 °C (2)																			
Heating capacity	kW	8,89	9,43	9,83	9,75	11,34	12,61	14,14	15,04	15,67	17,71	18,92	19,76	19,36	20,71	21,60	14,24	18,33	21,67
Water flow rate system side	l/h	780	827	862	856	995	1106	1240	1319	1375	1553	1660	1733	1698	1816	1894	1249	1068	1900
Pressure drop system side	kPa	10	12	13	5	7	8	10	12	12	17	19	21	11	13	14	8	13	18
Fan																			
Air flow rate	m^3/h	810	877	930	656	803	930	1316	1432	1518	1376	1507	1600	1376	1510	1601	1170	1631	2050
High static pressure	Pa	68	80	90	27	41	55	77	91	102	62	75	85	33	40	45	37	72	114
Input power	kW	0,1	0,1	0,2	0,1	0,1	0,2	0,2	0,3	0,3	0,2	0,3	0,3	0,2	0,3	0,3	0,3	0,3	0,4
Type	type	Centrifugal																	
Fan motor	type	On-Off																	
Number	no.	1			1			2			2			2			2		
Diametre hydraulic fittings																			
Type	type	Gas																	
Main heat exchanger	Ø	3/4"			1"			3/4"			3/4"			1"			3/4"		
Power supply																			
Power supply		230V~50Hz																	

		TS46			TS53			TS56			TS63			TS74			TS76		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Cooling performance 7 °C / 12 °C (1)																			
Cooling capacity	kW	8,57	11,27	13,44	8,05	11,06	13,86	9,50	13,13	16,47	8,11	12,84	16,62	17,47	20,65	21,92	19,79	23,38	24,93
Sensible cooling capacity	kW	6,90	9,06	10,81	5,68	7,80	9,77	6,73	9,31	11,68	6,40	10,12	13,11	14,20	16,78	17,82	16,04	18,95	20,21
Water flow rate system side	l/h	1474	1938	2311	1385	1902	2384	1633	2260	2833	1395	2208	2858	3006	3551	3771	3405	4022	4289
Pressure drop system side	kPa	8	13	17	12	21	32	10	18	27	7	16	26	19	25	28	17	23	26
Heating performance 70 °C / 60 °C (2)																			
Heating capacity	kW	18,17	23,45	27,83	15,55	20,82	25,89	19,63	26,43	32,90	18,32	27,78	35,61	37,33	43,80	46,45	42,00	49,25	52,44
Water flow rate system side	l/h	1593	2056	2440	1364	1826	2270	1722	2321	2886	1607	2436	3123	3274	3841	4073	3683	4319	4599
Pressure drop system side	kPa	6	10	14	9	15	22	9	15	22	6	13	21	16	22	24	15	20	22
Fan																			
Air flow rate	m^3/h	1173	1642	2076	1211	1775	2387	1202	1777	2391	1493	2570	3599	3117	3869	4200	3119	3869	4225
High static pressure	Pa	24	48	76	26	57	104	18	38	69	20	61	120	63	97	115	41	63	75
Input power	kW	0,3	0,3	0,4	0,3	0,4	0,5	0,3	0,4	0,5	0,3	0,4	0,6	0,7	0,8	0,8	0,7	0,8	0,8
Type	type	Centrifugal																	
Fan motor	type	On-Off																	
Number	no.	2			2			2			2			2			2		
Diametre hydraulic fittings																			
Type	type	Gas																	
Main heat exchanger	Ø	1"			3/4"			1"			1"			1"			1"1/4		
Power supply																			
Power supply		230V~50Hz																	

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C;

Unit designed to operate with all recirculating air or maximum 10% of external air.

DIMENSIONS



Size		13	16	23	34	36	43	46	53	56	63	74	76
Dimensions and weights													
A	mm	295	295	295	295	295	325	325	325	325	375	375	375
B	mm	645	645	1000	1000	1000	1100	1100	1345	1345	1345	1345	1345
C	mm	520	520	520	520	520	600	600	600	600	600	600	600
Empty weight	kg	25	27	35	38	42	42	46	48	52	56	61	67

Aermec reserves the right to make any modiÿcations deemed necessary.
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TA

Air handling unit

- **Horizontal or vertical, configurations**
- **Available units with heat exchanger with 4-6 rows**
- **Version with 4 row expansion coil using R410A**
- **Version with extractor**



DESCRIPTION

The air-conditioning units of the TA series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

FEATURES

Structure

Made of galvanised steel sandwich panels with polyurethane insulation (density 45 kg/m^3), 15 mm thick. The intake and delivery panels are fitted with flanges for the connection to any possible air channels or accessories.
The unit is supplied with specific brackets for attaching it to the wall.

Air filtration

Filtration of the air entrusted to class G4 filters in compliance with EN779 (thickness 50mm) as per standard positioned at intake.

Ventilation group

Fans double intake centrifugal with forward blades and directly coupled motor. The 230V-50Hz single-phase motor has many speeds, of which three can be selected via the control panel.

Heat exchanger coil

4 or 6 row coils, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.
The possibility to rotate the coils on site is envisioned.

■ *Also available are coils with 4 rows with direct expansion operating with R410A fluid and post-heating coils with 2 rows realised in copper piping with aluminium louvers blocked via mechanical expansion of the pipes.*

Condensate drip

Condensate drip tray interior isolated in aluminium alloy.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
WMT16: Electronic thermostat with thermostated ventilation.
WMT16CV: Electronic thermostat with continuous ventilation.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCTK: The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.
VCTKM: The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.
M2S: Galvanised steel mixing chamber with two dampers for air calibration. Louver pitch 50 mm, the galvanised steel adjustment knob (diameter 8 mm) can be motorised.

M3S: Galvanised steel mixing chamber with three air calibration dampers and galvanised steel plates. Must necessarily be paired with the VRF accessory.
FTF: Soft bag filters. Section in galvanised steel sheet metal with F6 soft bag filters. Must necessarily be paired in the powered units.
B2R: Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil.
PBE: Section with post heating coil composed of armoured heaters equipped with a double safety thermostat.
SSL: Module with seven galvanised steel sheet metal silencers and seven stone wool silencers covered by polyethylene film to prevent chipping.
S2Z: Galvanised steel opposed louvers dampers for mixing outside air with recirculating air.
VRF: Recovery fan unit equipped with electronic variable speed control. The unit is contained in a galvanised steel sheet metal section equipped with flat filters, efficiency level G4 (EN779).
SAS: Air calibration damper with galvanised sheet metal louvers to be positioned for intake. Louver pitch 50 mm; the galvanised steel adjustment knob can be motorised.
GMD: Air delivery grill with louvers that can be positioned for the delivery of air in the room to be treated. May be installed directly on the device by removing the flanges or installed on the wall.
GAP: Intake grille with louvers at a fixed 45° angle. May be installed directly on the device by removing the flanges or installed on the wall.
FPI: ISO COARSE 50% filter flange for intake at base.
PMM: Plenum with circular multiple delivery, thickness 1.5 mm. The plenum is equipped with multi-diameter circular connections (200 mm, 180 mm, 150 mm) made of plastic to permit the connection of circular conduits.
PMC: Closed delivery plenum in 1.5 mm thick hot-dip galvanised sheet metal. The plenum allows for flow to be rotated by 90°. Opening the delivery outlet is the installer's responsibility.

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	09	11	15	19	24	33	40	50
AER503IR (1)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
SA5 (2)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
SIT3 (3)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
SW5 (2)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
WMT10 (4)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
WMT16 (4)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
WMT16CV (4)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•

(1) Wall-mount installation.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

2 way valve kit

Ver	09	11	15	19	24	33	40	50
H4, H6, V4, V6	VCT102	VCT102	VCT202	VCT202	VCT202	VCT402	VCT402P	VCT402P

3 way valve kit

Ver	09	11	15	19	24	33	40	50
H4, H6, V4, V6	VCT103	VCT103	VCT203	VCT403, VCT403P	VCT403, VCT403P	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Actuator VCTK 230V

Ver	09	11	15	19	24	33	40	50
H4, H6, V4, V6	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK

Actuator 24V

Ver	09	11	15	19	24	33	40	50
H4, H6, V4, V6	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM

2-damper mixing chamber

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	M2S1	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5	M2S5

3-damper mixing chamber

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	M3S1 (1)	M3S1 (1)	M3S2 (1)	M3S3 (1)	M3S4 (1)	M3S4 (1)	M3S5 (1)	M3S5 (1)

(1) It must necessarily be combined with the VRF accessory.

Closed delivery plenum

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	PMC1	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5	PMC5

Soft bag filter section

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	FTF1 (1)	FTF1 (1)	FTF2 (1)	FTF3 (1)	FTF4 (1)	FTF4 (1)	FTF5 (1)	FTF5 (1)

(1) It must necessarily be combined in the enhanced units.

2-row coil

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	B2R1	B2R1	B2R2	B2R3	B2R4	B2R4	B2R5	B2R5

PMM

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	PMM1	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5	PMM5

ISO COARSE 50% filter flange for intake at base.

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	FPI1	FPI1	FPI2	FPI3	FPI4	FPI4	FPI5	FPI5

Section with post-heating coil

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	PBE1	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7	PBE8

Silencer baffles module

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	SSL1	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5	SSL5

2 zone damper

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	S2Z1	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5	S2Z5

Return ventilating section with a G4 filter

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	VRF1	VRF2	VRF3	VRF4	VRF5	VRF6	VRF7	VRF8

Suction damper

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	SAS1	SAS1	SAS2	SAS3	SAS3	SAS3	SAS5	SAS5

Outlet grille with adjustable louvers

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	GMD1	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5	GMD5

Intake grids

Ver	09	11	15	19	24	33	40	50
H4, H6, HE, V4, V6, X	GAP1	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5	GAP5

4-ROW COIL UNIT PERFORMANCE DATA

Units designed to operate with all recirculating air or maximum 10% of external air.

Versions H/V

		TA09H4	TA09V4	TA11H4	TA11V4	TA15H4	TA15V4	TA19H4	TA19V4	TA24H4	TA24V4	TA33H4	TA33V4	TA40H4	TA40V4	TA50H4	TA50V4
Cooling performances 7 °C / 12 °C - 2 pipe system (1)																	
Cooling capacity	kW	4,20	4,20	5,70	5,70	8,70	8,70	12,40	12,40	17,30	17,30	21,70	21,70	27,20	27,20	33,50	33,50
Sensible cooling capacity	kW	3,50	3,50	4,20	4,20	6,20	6,20	8,30	8,30	11,20	11,20	14,30	14,30	18,00	18,00	20,90	20,90
Water flow rate	l/h	722	722	980	980	1496	1496	2132	2132	2975	2975	3732	3732	4678	4678	5761	5761
Pressure drop	kPa	6	6	6	6	7	7	12	12	16	16	23	23	11	11	31	31
Heating performance 70 °C / 60 °C - 2 pipe system																	
Heating capacity	kW	10,40	10,40	13,30	13,30	19,10	19,10	24,70	24,70	34,10	34,10	41,90	41,90	52,80	52,80	58,30	58,30
Water flow rate	l/h	894	894	1139	1139	1642	1642	2124	2124	2932	2932	3603	3603	4538	4538	5013	5013
Pressure drop	kPa	5	5	8	8	7	7	10	10	13	13	19	19	10	10	22	22
2-rows-heating coil with hot water - (accessory) (2)																	
Heating capacity	kW	3,90	3,90	8,50	8,50	12,70	12,70	16,00	16,00	21,70	21,70	26,70	26,70	34,80	34,80	40,00	40,00
Water flow rate	l/h	333	333	731	731	1092	1092	1371	1371	1866	1866	2291	2291	2988	2988	3439	3439
Pressure drop	kPa	8	8	11	11	13	13	14	14	18	18	26	26	18	18	23	23
Electric heating coil - (accessory)																	
Heating capacity	kW	4,00	4,00	6,00	6,00	8,00	8,00	10,00	10,00	12,00	12,00	16,00	16,00	20,00	20,00	24,00	24,00
Stages	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Power supply		400V~3 50Hz															
Fan																	
Type	type	Centrifugal															
Number	no.	1	1	2	2	2	2	1	1	1	1	2	2	2	2	2	2
Air flow rate	m^3/h	800	800	1100	1100	1500	1500	1900	1900	2400	2400	3300	3300	4000	4000	5000	5000
High static pressure	Pa	145	145	290	290	176	176	240	240	211	211	245	245	248	248	153	153
Input power	kW	0.25		0.31		0.38		0.61		0.83		0.81		0.98		1.28	
Air filter																	
Type	type	G4 / F6															
Sound data																	
Sound power level	dB(A)	62,0	62,0	66,0	66,0	67,0	67,0	72,0	72,0	74,0	74,0	75,0	75,0	76,0	76,0	79,0	79,0
Power supply																	
Power supply		230V~50Hz															

(1) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(2) Water temperature (in/out) 70°C / 60°C.

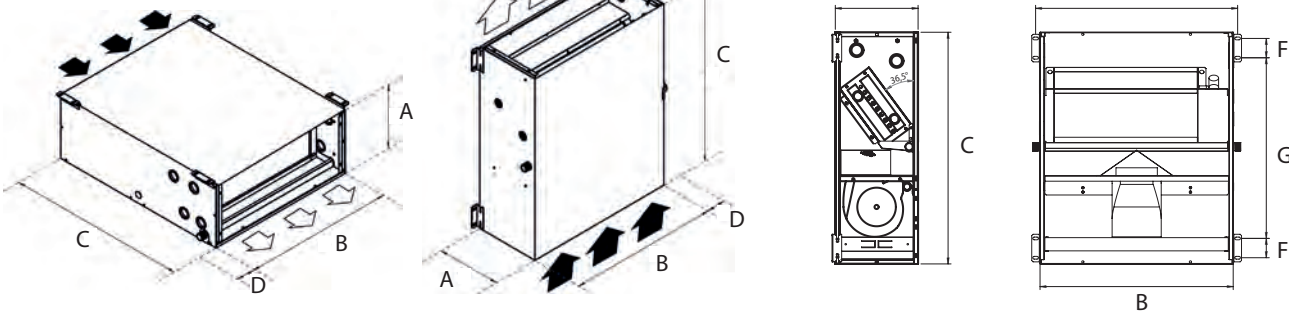
6-ROW COIL UNIT PERFORMANCE DATA

Versions H/V

		TA09H6	TA09V6	TA11H6	TA11V6	TA15H6	TA15V6	TA19H6	TA19V6	TA24H6	TA24V6	TA33H6	TA33V6	TA40H6	TA40V6	TA50H6	TA50V6
Cooling performances 7 °C / 12 °C - 2 pipe system (1)																	
Cooling capacity	kW	5,10	5,10	6,70	6,70	11,70	11,70	15,50	15,50	20,60	20,60	26,30	26,30	33,50	33,50	39,60	39,60
Sensible cooling capacity	kW	3,40	3,40	4,70	4,70	7,50	7,50	9,80	9,80	12,80	12,80	16,60	16,60	20,90	20,90	25,00	25,00
Water flow rate	l/h	868	868	1152	1152	2012	2012	2666	2666	3543	3543	4523	4523	5761	5761	6810	6810
Pressure drop	kPa	4	4	6	6	15	15	29	29	27	27	41	41	31	31	42	42
Heating performance 70 °C / 60 °C - 2 pipe system																	
Heating capacity	kW	11,40	11,40	14,80	14,80	21,40	21,40	27,40	27,40	35,60	35,60	46,60	46,60	58,30	58,30	72,80	72,80
Water flow rate	l/h	976	976	1273	1273	1838	1838	2356	2356	3058	3058	4005	4005	5013	5013	6260	6260
Pressure drop	kPa	4	4	7	7	16	16	23	23	21	21	34	34	22	22	30	30
2-rows-heating coil with hot water - (accessory) (2)																	
Heating capacity	kW	3,90	3,90	8,50	8,50	12,70	12,70	16,00	16,00	21,70	21,70	26,70	26,70	34,80	34,80	40,00	40,00
Water flow rate	l/h	333	333	731	731	1092	1092	1371	1371	1866	1866	2291	2291	2988	2988	3439	3439
Pressure drop	kPa	8	8	11	11	13	13	14	14	18	18	26	26	18	18	23	23
Electric heating coil - (accessory)																	
Heating capacity	kW	4,00	4,00	6,00	6,00	8,00	8,00	10,00	10,00	12,00	12,00	16,00	16,00	20,00	20,00	24,00	24,00
Stages	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Power supply		400V~3 50Hz															
Fan																	
Type	type	Centrifugal															
Number	no.	1	1	2	2	2	2	1	1	1	1	2	2	2	2	2	2
Air flow rate	m^3/h	800	800	1100	1100	1500	1500	1900	1900	2400	2400	3300	3300	4000	4000	5000	5000
High static pressure	Pa	131	131	265	265	158	158	224	224	199	199	224	224	234	234	131	131
Input power	kW	0.25		0.31		0.38		0.61		0.83		0.81		0.98		1.28	
Air filter																	
Type	type	G4 / F6															
Sound data																	
Sound power level	dB(A)	62,0	62,0	66,0	66,0	67,0	67,0	72,0	72,0	74,0	74,0	75,0	75,0	76,0	76,0	79,0	79,0
Power supply																	
Power supply		230V~50Hz															

(1) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(2) Water temperature (in/out) 70°C / 60°C.

DIMENSIONS



Unit for horizontal installation

Unit H

		TA09H4	TA09H6	TA11H4	TA11H6	TA15H4	TA15H6	TA19H4	TA19H6	TA24H4	TA24H6	TA33H4	TA33H6	TA40H4	TA40H6	TA50H4	TA50H6
Dimensions and weights																	
A	mm	300	300	300	300	300	300	390	390	390	390	390	390	390	390	390	390
B	mm	700	700	700	700	1050	1050	1050	1050	1475	1475	1475	1475	2100	2100	2100	2100
C	mm	700	700	700	700	700	700	850	850	850	850	850	850	1000	1000	1000	1000
D	mm	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
E	mm	732	732	732	732	732	732	1082	1082	1507	1507	1507	1507	2131	2131	2131	2131
F	mm	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
G	mm	655	655	655	655	655	655	905	905	905	905	905	905	905	905	905	905
Weights																	
With 4-row water coil	kg	28	28	33	33	45	45	60	60	78	78	86	86	135	135	140	140
With 6-row water coil	kg	30	30	35	35	47	47	62	62	81	81	89	89	139	139	144	144

Unit for vertical installation

Unit V

		TA09V4	TA09V6	TA11V4	TA11V6	TA11VE	TA15V4	TA15V6	TA19V4	TA19V6	TA24V4	TA24V6	TA33V4	TA33V6	TA40V4	TA40V6	TA50V4	TA50V6
Dimensions and weights																		
A	mm	300	300	300	300	300	300	300	390	390	390	390	390	390	390	390	390	390
B	mm	700	700	700	700	700	1050	1050	1050	1050	1475	1475	1475	1475	2100	2100	2100	2100
C	mm	700	700	700	700	700	700	700	850	850	850	850	850	850	1000	1000	1000	1000
D	mm	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
E	mm	732	732	732	732	732	732	732	1082	1082	1507	1507	1507	1507	2131	2131	2131	2131
F	mm	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
G	mm	655	655	655	655	655	655	655	905	905	905	905	905	905	905	905	905	905
Weights																		
With 4-row water coil	kg	28	28	33	33	33	45	45	60	60	78	78	86	86	135	135	140	140
With 6-row water coil	kg	30	30	35	35	35	47	47	62	62	81	81	89	89	139	139	144	144

Aermec reserves the right to make any modiÿcations deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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TN

Air handling unit

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Wide choice of accessories.**
- **Large range of capacities and static pressures.**
- **Versions available with water coil or with direct expansion.**



DESCRIPTION

The TN range offers an alternative to the air treatment unit for flow rates from 2300 to 23000m^3/h when the only treatment required is filtering, cooling and/or heating. Designed for domestic, commercial, industrial or hotel systems in small or medium sized contexts.
The units can be installed horizontally or vertically for greater flexibility of use.
All the units are always supplied and shipped in the vertical configuration. The customer is responsible for any possible modification from vertical to horizontal.
TN series are characterised by their compact size, low noise levels, and the wide choice of accessories.
The units are available with a plug fan unit with EC motor, or with a transmission centrifugal fan unit with AC motor (the latter comes in both the standard version and the boosted high head version).

FEATURES

Structure

The structure is made of aluminium profiles with sandwich cover paneling made of galvanised steel on the inside and pre-coated RAL 9003 galvanised steel on the outside with polyurethane insulation (density 40 kg/m^3) with 25 mm thickness.
Both the panels of the base unit as well as the panels of the plenum have pre-shearing that render them compatible with the insertion of the accessories.
The fixing of the paneling using a panel block profile ensures a perfect seal between the panel and the frame and makes it extremely easy to mount and remove the panels. The 3-way corner joint is made of glass-fibre reinforced nylon.
The condensate drip tray, in galvanised steel, has a threaded drain connection on both sides and can be used whether the unit is installed horizontally or vertically.

Water heat exchanger coils

With copper pipes. Aluminium fins blocked via the mechanical expansion of the pipes. With 4 or 6 rows for the main one (heating or cooling) and 2,3 or 4 rows for the secondary one (heating only).

Evaporative heat exchanger coils

An alternative to the main water coil.
Suitable for R410A refrigerant. With copper pipes. Aluminium fins blocked via the mechanical expansion of the pipes. With 4 or 6 rows and both RH and LH versions.

Electric heating coil

Electric heating coil with finned, armoured elements. With twin safety thermostat (automatic and manual reset). Includes the implementation contactors (commanded with 24Volt AC voltage).
Can be used both for summer post-heating and winter heating. The coil has two asymmetric levels (1/3, 2/3 of the total power) so it can be commanded at up to 3 levels.

Air filter

The air is filtered through synthetic 50mm filters with an efficiency level of Coarse 55% (as per the ISO 16890 standard) on the intake points.
The filters are housed on guides in the main coil section, and can be easily removed for cleaning and maintenance; just remove the panel on the side of the water connections and then take out the filters.
With the FT7MxT accessory, filtering takes place via compact filters with an EPM1 55% efficiency level (as per the ISO 16890 standard).

VENTILATION GROUP

The configurator allows you to choose between two different types of fan unit, to meet every possible system request.

Ventilation group with inverter EC fan plug fun

Fan
The fans are of the plug-fan type with reversed blades for excellent performance with single intake.
Motor
The electric motors with extremely high efficiency, directly coupled to the fans, have an external EC rotor with integrated electronic control.They can be controlled continuously by a 0-10V signal. IP55 Protection rating. The motors can be powered with 380-480V / 3ph / 50-60Hz (the range is however reduced to the power supply required by the ByyExT or ByyExTZ electric battery accessory, if required immediately or if installed at a later date).
A standard control option via the ModBus protocol.

Fan unit with transmission

Fan

The fans are of the double suction centrifugal variety with high performance forward blades.

Motor

The single-speed (4-pole) electric motors are of the three-phase asynchronous type, with a closed construction and external ventilation, caged rotor and B3 configuration with horizontal shaft, complying with the IEC, CEI and UNEL standards. IP55 protection rating. They are powered at 400V-3ph-50Hz (standard) or 460V-3ph-60Hz (units with "Z" power supply).

Transmission

The pulleys (supplied with a Taperlock-type conical shrink disk) are statically and dynamically balanced, with a variable diameter for improved fan calibration. The transmission belts may be of the SPA or SPB type.

ACCESSORIES

PLxT: Plenum composed of pre-sheared panels that can be opened on 3 sides, it can be mounted as an inlet or as an outlet; it is compatible with the accessories GAxT, GMxT, SAxT and TPPLxT. It includes mounting brackets and feet (for horizontal and vertical configurations).

FT7MxT: Compact filters with filtering degree ePM1 55% (according to ISO 16890), composed of a plenum that can be opened on two sides, which can be positioned on the outlet of the machine; it is compatible with the accessories GMxT, SAxT and TPPxT. It includes fixing plates and feet (for horizontal and vertical configurations).

B2RxT: Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

B3RxT: Hot water coil with 3 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

BR4xT: Hot water coil with 4 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

SAxT: Air calibration damper with galvanised steel louvers. Louvers pitch 50mm; galvanised steel adjusting pin : can be installed on the equipment base or the plenum.

GMxT: Outlet grille with double row of louvers that can be adjusted when emitting air into the room. Can be installed on the plenum.

GAxT: Suction grille with louvers fixed at an angle of 45°; Can be installed directly on the equipment base or on the plenum accessories.

TPVSxT: Protective roof for Vertical installation with top outlet. Composed of a pre-coated metal sheet, fastened to the side of the unit. To be installled on the unit base. The accessory is not compatible with units equipped with EC plug fans.

TPVFxT: Protective roof for Vertical installation with front delivery. Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on: PLxT, FT7MxT and vertical unit base with front outlet.

TPLxT: Protective roof for horizontal installation with Front outlet. Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on unit base.

TPPLxT: Protective roof for the plenum, for horizontal installation with front delivery. Made of pre-painted diamond sheet metal fixed to the sides of the unit (to be installed on PLxT and FT7MxT, from size 3 to size 8).

TPFTLxT: Protective roof for the bag filters, for line installation with front delivery. Made of pre-painted diamond sheet metal fixed to the sides of the unit (to be installed on FT7MxT, on sizes 1 and 2).

P50MBT: Corner support feet for both the horizontal and vertical version. Made of galvanised sheet: they can be fixed directly to the unit with the screws supplied. The accessory has 4 corner feet and 2 side feet.

P50ACT: Lateral support feet for the horizontal version. Made of galvanised sheet: they come with the accessories unit together with the bolts and screws.

ByyExT: Electric coil 400V/3ph/50Hz. Can be positioned inside the standard device, downstream from the main coil. Consists of a sheet metal frame, heating elements (armoured and finned), command contactors (24V AC) and two thermostats (one with automatic reset and the other manual). The electrical heating power (yy in kW) is divided over two sets of heaters 1/3+2/3 that can be controlled up to max. 3 levels. WARNING: To avoid the risk of overheating, make sure the fan is working at the correct flow rate when the coil is activated, and that there is a minimum post-ventilation time when the coil is deactivated.

BYYExTZ: Electric coil 460V/3ph/60Hz. Can be positioned inside the standard device, downstream from the main coil. Consists of a sheet metal frame, heating elements (armoured and finned), command contactors (24V AC) and two thermostats (one with automatic reset and the other manual). The electrical heating power (yy in kW) is divided over two sets of heaters 1/3+2/3 that can be controlled up to max. 3 levels. WARNING: To avoid the risk of overheating, make sure the fan is working at the correct flow rate when the coil is activated, and that there is a minimum post-ventilation time when the coil is deactivated.

CPxT: Adjustment module with sensor for volumetric flow rate (accessory for TNxxE version only).

CPxTP: Adjustment module with sensor for differential pressure (accessory for TNxxE version only).

CPxTV: Speed regulatory (accessory only for TNxxE versions).

ACCESSORIES COMPATIBILITY

Plenum

1	2	3	4	5	6	7	8
PL1T (1)	PL2T (1)	PL3T (1)	PL4T (1)	PL5T (1)	PL6T (1)	PL7T (1)	PL8T (1)

(1) For horizontal and vertical configurations.

Compact ePM1 55% filters on the fan delivery

1	2	3	4	5	6	7	8
FT7M1T (1)	FT7M2T (1)	FT7M3T (1)	FT7M4T (1)	FT7M5T (1)	FT7M6T (1)	FT7M7T (1)	FT7M8T (1)

(1) For horizontal and vertical configurations.

Hot water coil with 2 rows for lines with 4 pipes

1	2	3	4	5	6	7	8
B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T

Hot water coil with 3 rows for lines with 4 pipes

1	2	3	4	5	6	7	8
B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T

Hot water coil with 4 rows for lines with 4 pipes

1	2	3	4	5	6	7	8
B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T

Suction damper

1	2	3	4	5	6	7	8
SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T

Outlet grille with adjustable louvers

1	2	3	4	5	6	7	8
GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T

Intake grids

1	2	3	4	5	6	7	8
GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T

Protective roof for Vertical installation with top outlet

1	2	3	4	5	6	7	8
TPVS1T (1)	TPVS2T (1)	TPVS3T (1)	TPVS4T (1)	TPVS5T (1)	TPVS6T (1)	TPVS7T (1)	TPVS8T (1)

(1) The accessory is not compatible with units equipped with EC plug fans.

Protective roof for Vertical installation with front outlet

1	2	3	4	5	6	7	8
TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T

Protective roof for horizontal installation with front outlet

1	2	3	4	5	6	7	8
TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T

Protective roof for horizontal installation with Front outlet

1	2	3	4	5	6	7	8
TPPL1T (1)	TPPL2T (1)	TPPL3T (1)	TPPL4T (1)	TPPL5T (1)	TPPL6T (1)	TPPL7T (1)	TPPL8T (1)

(1) To be installed on PLxT and FT7MxT from size 3 to size 8.

Roof for protecting pocket filters for installation on Line with Front outlet

1	2	3	4	5	6	7	8
TPFTL1T (1)	TPFTL2T (1)	-	-	-	-	-	-

(1) To be installed on FT7MxT on sizes 1 and 2.
The accessory cannot be fitted on the configurations indicated with -

Corner support feet

1	2	3	4	5	6	7	8
P50MBT	P50MBT	P50MBT	P50MBT	P50MBT	P50MBT	P50MBT	P50MBT

Lateral support feet

1	2	3	4	5	6	7	8
P50ACT	P50ACT	P50ACT	P50ACT	P50ACT	P50ACT	P50ACT	P50ACT

Electric coil 400V~3 50Hz

1	2	3	4	5	6	7	8
B07E1T	B10E2T	B14E3T	B18E4T	B25E5T	B30E6T	B40E7T	B50E8T

Electric coil 460V~3 60Hz

1	2	3	4	5	6	7	8
B07E1TZ	B10E2TZ	B14E3TZ	B18E4TZ	B25E5TZ	B30E6TZ	B40E7TZ	B50E8TZ

Adjustment module with sensor for volumetric flow rate

1	2	3	4	5	6	7	8
CP1T (1)	CP1T (1)	CP2T (1)	CP2T (1)	CP2T (1)	CP2T (1)	CP2T (1)	CP2T (1)

(1) Accessory only available for TNxxE versions.

Adjustment module with sensor for differential pressure

1	2	3	4	5	6	7	8
CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)

(1) Accessory only available for TNxxE versions.

Speed regulatory

1	2	3	4	5	6	7	8
CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)

(1) Accessory only available for TNxxE versions.

CONFIGURATOR

Field		Description
1,2		**TN**
3		**Size** 1, 2, 3, 4, 5, 6, 7, 8
4		**Version**
	4	Water coil, 4 rows (LH side for connections - the connections side can be altered on site)
	6	Water coil, 6 rows (LH side for connections - the connections side can be altered on site)
	A	R410A direct expansion coil, 4 rows (RH side for connections - the connections side cannot be altered on site) (1)
	B	R410A direct expansion coil, 4 rows (LH side for connections - the connections side cannot be altered on site) (2)
	C	R410A direct expansion coil, 6 rows (RH side for connections - the connections side cannot be altered on site) (1)
	D	R410A direct expansion coil, 6 rows (LH side for connections - the connections side cannot be altered on site) (2)
5		**Fans (3)**
	B	Centrifugal with AC motor (low head)
	E	Plug fans with EC motor
	P	Centrifugal with AC motor (high head)
6		**Power supply (4)**
	Z	460V ~ 3 60Hz
	°	400V ~ 3 50Hz

(1) With vertical configuration, the coil connections are on the opposite side to motor inspection. When transformed to horizontal configuration, the coil connections may be on the same side as motor inspection or on the opposite side, depending on the type of conversion.
(2) With vertical configuration, the coil connections and motor inspection are on the same side. When transformed to horizontal configuration, the coil connections may be on the same side as motor inspection or on the opposite side, depending on the type of conversion.
(3) The unit is always supplied with fan delivery directed upwards. The delivery flow direction can be altered on site.
(4) Field to be specified only in the case of a "B" or "P" fan unit. In the case of an "E" fan unit, the permitted power supply range is 380-480V ~ 3 50-60 Hz.

* VERSION: the definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).

** All the units are always supplied and shipped in the vertical configuration. The customer is responsible for any possible modification from vertical to horizontal.

PERFORMANCE SPECIFICATIONS

TN 1-8 with 4-row water coil

Size		1	2	3	4	5	6	7	8
Cooling performance 7 °C / 12 °C (1)									
Cooling capacity	kW	15,6	21,3	29,1	38,1	44,8	56,7	74,7	96,4
Sensible cooling capacity	kW	10,7	14,7	20,1	26,2	33,3	41,7	55,1	70,9
Heating performance 70 °C / 60 °C (2)									
Heating capacity	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	25,2	34,0	46,8	61,5	84,4	103,8	138,0	178,5
Heating capacity with 3 row water coil	kW	33,5	45,6	62,7	82,0	110,8	137,3	182,5	234,4
Heating capacity with 4 row water coil	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating performance 45 °C / 40 °C (3)									
Heating capacity	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	14,7	19,8	27,3	36,0	49,0	60,3	80,1	103,8
Heating capacity with 3 row water coil	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating capacity with 4 row water coil	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C
(3) Room air temperature 10°C d.b.; Water (in/out) 45 °C/40 °C;

TN 1-8 with 4-row direct expansion coil

Size		1	2	3	4	5	6	7	8
Performance in cooling mode with incoming air at 27°C / 50% R.H. (1)									
Cooling capacity	kW	12,6	17,1	23,5	30,2	38,5	47,7	63,7	81,5
Sensible cooling capacity	kW	9,9	13,5	18,5	24,1	30,4	38,0	50,7	65,2

(1) Temperatura dell'aria in entrata 27°C b.s. 50% U.R .; Refrigerante R410A, t.at. EVAP. 10°C, fino a 8 K, trasformazione inferiore a 0 K, vapore-vapore liquido da 0 a 1; consultare il software di selezione.

TN 1-8 with 6-row water coil

Size		1	2	3	4	5	6	7	8
Cooling performance 7 °C / 12 °C (1)									
Cooling capacity	kW	20,0	27,4	37,7	49,2	58,3	74,5	98,9	127,8
Sensible cooling capacity	kW	13,4	18,3	25,2	32,8	41,1	51,8	68,8	88,5
Heating performance 70 °C / 60 °C (2)									
Heating capacity	kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	25,2	34,0	46,8	61,5	84,4	103,8	138,0	178,5
Heating capacity with 3 row water coil	kW	33,5	45,6	62,7	82,0	110,8	137,3	182,5	234,4
Heating capacity with 4 row water coil	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating performance 45 °C / 40 °C (3)									
Heating capacity	kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	14,7	19,8	27,3	36,0	49,0	60,3	80,1	103,8
Heating capacity with 3 row water coil	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating capacity with 4 row water coil	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C
(3) Room air temperature 10°C d.b.; Water (in/out) 45 °C/40 °C;

GENERAL TECHNICAL DATA

Fans

Size			1	2	3	4	5	6	7	8
Fans: B										
Fan										
Number	4,6,A,B,C,D	no.	1	1	1	1	1	1	1	1
Nr. poles	4,6,A,B,C,D	no.	4	4	4	4	4	4	4	4
Maximum air flow rate with cooling coil	4,6,A,B,C,D	m^3/h	3000	4100	5650	7350	9400	11700	15500	20000
Maximum air flow rate with heating coil	4,6,A,B,C,D	m^3/h	3500	4700	6400	8000	9750	13400	17800	20000
High static pressure - maximum	4,6,A,B,C,D	Pa	425	455	452	440	383	425	436	400
Total fan input power	4,6,A,B,C,D	kW	0,8	1,1	1,5	2,2	2,2	4,0	4,0	5,5
Version without resistance										
Rated current input	4,6,A,B,C,D	A	1,8	2,4	3,2	4,7	4,7	8,2	8,2	11,1
Peak current	4,6,A,B,C,D	A	5,3	6,2	6,8	6,4	6,4	7,0	7,0	5,9
Version with electric heater										
Rated current input	4,6,A,B,C,D	A	11,9	16,9	15,0	23,4	30,7	40,8	51,6	83,4
Peak current	4,6,A,B,C,D	A	11,9	16,9	23,4	30,7	40,8	51,6	66,0	83,4
Fan										
Power supply	4,6,A,B,C,D		400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz

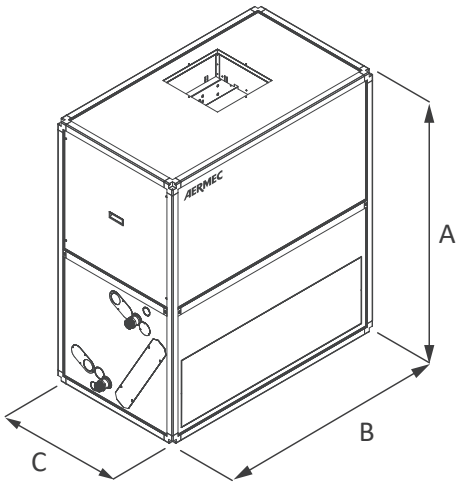
Size			1	2	3	4	5	6	7	8
Fans: E										
Fan										
Number	4,6,A,B,C,D	no.	1	1	1	1	1	1	2	2
Nr. poles	4,6,A,B,C,D	no.	-	-	-	-	-	-	-	-
Maximum air flow rate with cooling coil	4,6,A,B,C,D	m^3/h	3000	4100	5650	7350	9400	11700	15500	20000
Maximum air flow rate with heating coil	4,6,A,B,C,D	m^3/h	3500	4700	6400	8400	10500	13400	17800	23000
High static pressure - maximum	4,6,A,B,C,D	Pa	700	660	700	700	660	640	700	580
Total fan input power	4,6,A,B,C,D	kW	1,5	1,5	2,5	3,4	3,4	3,4	3,4	3,4
Version without resistance										
Rated current input	4,6,A,B,C,D	A	2,4	2,4	4,0	5,4	5,4	5,4	2x5,4	2x5,4
Peak current	4,6,A,B,C,D	A	-	-	-	-	-	-	-	-
Version with electric heater										
Rated current input	4,6,A,B,C,D	A	12,5	16,9	24,2	31,4	41,5	48,8	68,6	83,1
Peak current	4,6,A,B,C,D	A	-	-	-	-	-	-	-	-
Fan										
Power supply	4,6,A,B,C,D		400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz

Size			1	2	3	4	5	6	7	8
Fans: P										
Fan										
Number	4,6,A,B,C,D	no.	1	1	1	1	1	1	1	1
Nr. poles	4,6,A,B,C,D	no.	4	4	4	4	4	4	4	4
Maximum air flow rate with cooling coil	4,6,A,B,C,D	m^3/h	3000	4100	5650	7350	9400	11700	15500	20000
Maximum air flow rate with heating coil	4,6,A,B,C,D	m^3/h	3500	4700	6400	8400	10500	13400	17800	23000
High static pressure - maximum	4,6,A,B,C,D	Pa	600	627	674	672	567	670	625	610
Total fan input power	4,6,A,B,C,D	kW	1,1	1,5	2,2	3,0	3,0	5,5	5,5	7,5
Version without resistance										
Rated current input	4,6,A,B,C,D	A	2,4	3,2	4,7	6,3	6,3	11,1	11,1	14,9
Peak current	4,6,A,B,C,D	A	6,2	6,8	6,4	7,7	7,7	5,9	5,9	5,6
Version with electric heater										
Rated current input	4,6,A,B,C,D	A	12,5	17,7	24,9	32,3	42,4	54,5	68,9	87,2
Peak current	4,6,A,B,C,D	A	12,5	17,7	24,9	32,3	42,4	54,5	68,9	87,2
Fan										
Power supply	4,6,A,B,C,D		400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz

It is the maximum static pressure that can be supplied by the fan; it is equal to the internal pressure drops + the useful static pressure.

Size			1	2	3	4	5	6	7	8
Finned pack heat exchanger										
H		mm	475	475	550	550	720	720	960	960

DIMENSIONS



Size			1	2	3	4	5	6	7	8
Dimensions and weights										
A	4,6,A,B,C,D	mm	1334	1334	1497	1497	1822	1822	2309	2309
B	4,6,A,B,C,D	mm	928	1172	1334	1659	1659	1984	1984	2472
C	4,6,A,B,C,D	mm	684	684	765	765	928	928	1172	1172

Size			1	2	3	4	5	6	7	8
Fans: B										
Dimensions and weights										
Empty weight	4	kg	187	216	270	314	408	466	619	793
	6	kg	190	220	275	320	415	475	630	807
	A,B	kg	191	220	274	318	412	470	623	797
	C,D	kg	195	225	280	325	420	480	635	812

Size			1	2	3	4	5	6	7	8
Fans: E										
Dimensions and weights										
Empty weight	4	kg	175	199	249	304	388	466	611	769
	6	kg	178	203	254	310	395	475	622	783
	A,B	kg	179	203	253	308	392	470	615	773
	C,D	kg	183	208	259	315	400	480	627	788

Size			1	2	3	4	5	6	7	8
Fans: P										
Dimensions and weights										
Empty weight	4	kg	197	219	279	316	410	493	646	799
	6	kg	200	223	283	321	417	502	657	813
	A,B	kg	201	223	283	320	414	497	650	803
	C,D	kg	205	228	289	327	422	507	662	818

Add 50mm to the height of the unit (A), to allow for the feet.
The vertical configuration (B/D), the connections and motor inspection are on the same side.

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NCD

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



FEATURES

— Central air handling units with double panelling with panel thickness of 50 mm;
— Support structure realised in aluminium alloy sections and a large choice of panels;
— Wide range of sections and components to satisfy all plant engineering requirements
— Double intake centrifugal fans with forward or reverse blades.
— PLUG FAN type fan with Inverter regulation, able to adapt to the most varied system requirements.

Structure

— In aluminium sections;
— Gaskets, able to guarantee reduced seepage in compliance with the EN1886 Standard;
— Reduction of noise emission thanks to the use of material with high sound-absorption power;
— Small dimensions and contained height.

Internal components

— New high-efficiency heat exchangers with small pressure drops
— 3-damper mixing chamber.

Mixing chamber with three dampers. The configurations for the mixing chambers with three dampers are the following:

— two upper dampers and an internal one for recirculation;
— two front dampers and a horizontal one for recirculation (for overlapping control units);
— two lateral internal dampers and an internal for recirculation (configuration for expulsion and non-ducted fresh air intake).

Large availability of filters

— Filters with large surfaces to reduce the pressure drops and increase the duration;
— Cell pre-filters;
— Roll filters;
— Bag filters;
— Absolute filters;
— Activated carbon filters;
— Germicidal lamp;
— New efficient drop eliminator in PVC;
— New heat recoverers with high heat exchange.

Electric components

— Electronic regulation available able to optimise the performance and simplify installation of the control unit itself;
— New high performance selection software.

ACCESSORIES

Technical rooms;

Accessories for air intake/exhaust sections:

— Flange;
— Blank panel (to be perforated with care by the customer);
— Anti-vibration sheet on the intake/flow vents (with or without damper) with earth cable;
— Aluminium grille (for internal dampers only);
— Manual command on the dampers;
— Proportional servo-control;
— Proportional servo-control with spring return;
— Pedestrian grill on the floor dampers.

Accessories for the fan-motor sections:

— Damper on the flow vent;
— Damper on the flow vent;
— Micro switch on the inspection hatch.

Accessories common to several sections:

— Spot light with window with 24V bulb (the installer must envision the 24V power supply);
— Manometer with dial;
— Pressure switche;
— Instruments-probes holder GJ 1/4" double sleeve;
— Floor reinforced with non-slip sheet steel.

PERFORMANCE SPECIFICATIONS

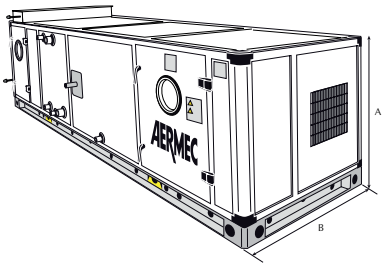
	Air flow rate m^3/h	Section heating coil m^2
NCD 1	1134	0,13
NCD 2	1958	0,22
NCD 3	2390	0,27
NCD 4	3132	0,35
NCD 5	3823	0,42
NCD 6	4307	0,48
NCD 7	5257	0,58
NCD 8	6207	0,69
NCD 9	8019	0,89
NCD 10	9477	1,05
NCD 11	11548	1,28
NCD 12	14213	1,58
NCD 13	16978	1,89
NCD 14	19742	2,19
NCD 15	25761	2,86
NCD 16	30772	3,42
NCD 17	37139	4,13
NCD 18	47187	4,80
NCD 19	49235	5,47
NCD 20	55283	6,14
NCD 21	61331	6,81
NCD 22	67379	7,49
NCD 23	73427	8,16
NCD 24	79475	8,83

The performance refers to an air speed through the coils equal to 2.5 m/s.

	EXT		734	894	1054	1214	1374	1534	1694	1854	2014
Height with base		**INT**	**620**	**780**	**940**	**1100**	**1260**	**1420**	**1580**	**1740**	**1900**
			NCD1	**NCD1A**	**NCD2**	**NCD2**	**NCD3C**	**NCD4B**	**NCD5B**	**NCD6B**	**NCD6D**
645	**524**	**410**	1370-1640 m^3/h	1880-2260 m^3/h	2350-2820 m^3/h	2350-2820 m^3/h	3390-4070 m^3/h	3890-4670 m^3/h	4380-5250 m^3/h	4860-5840 m^3/h	5330-6400 m^3/h
			NCD1B	**NCD3A**	**NCD4**	**NCD5**	**NCD6A**	**NCD7A**	**NCD8A**	**NCD8C**	**NCD8F**
805	**684**	**570**	1970-2360 m^3/h	2720-3260 m^3/h	3400-4080 m^3/h	4150-4980 m^3/h	4900-5870 m^3/h	5620-6740 m^3/h	6320-7590 m^3/h	7020-8430 m^3/h	7700-9240 m^3/h
			NCD2A	**NCD4A**	**NCD6**	**NCD7**	**NCD8**	**NCD8D**	**NCD9**	**NCD9C**	**NCD9F**
965	**844**	**730**	2580-3090 m^3/h	3550-4260 m^3/h	4440-5330 m^3/h	5420-6500 m^3/h	6400-7680 m^3/h	7350-8820 m^3/h	8270-9920 m^3/h	9180-11020 m^3/h	10070-12090 m^3/h
			NCD3B	**NCD5A**	**NCD6E**	**NCD8B**	**NCD8H**	**NCD9A**	**NCD10**	**NCD10C**	**NCD11**
1125	**1004**	**890**	3180-3820 m^3/h	4390-5270 m^3/h	5490-6580 m^3/h	6700-8030 m^3/h	7910-9490 m^3/h	9080-10890 m^3/h	10210-12250 m^3/h	11340-13610 m^3/h	12440-14930 m^3/h
				NCD6C	**NCD7B**	**NCD8G**	**NCD9E**	**NCD10A**	**NCD10F**	**NCD11A**	**NCD12**
1285	**1164**	**1050**		5220-6270 m^3/h	6530-7830 m^3/h	7970-9560 m^3/h	9410-11290 m^3/h	10800-12960 m^3/h	12150-14580 m^3/h	13500-16200 m^3/h	14810-17770 m^3/h
					NCD8E	**NCD9B**	**NCD10B**	**NCD10G**	**NCD11D**	**NCD12A**	**NCD12C**
1445	**1324**	**1210**			7570-9090 m^3/h	9240-11090 m^3/h	10910-13100 m^3/h	12530-15040 m^3/h	14100-16920 m^3/h	15660-18800 m^3/h	17180-20610 m^3/h
						NCD10D	**NCD11B**	**NCD12B**	**NCD13A**	**NCD13D**	**NCD14B**
1765	**1644**	**1530**				11790-14150 m^3/h	13920-16710 m^3/h	15990-19190 m^3/h	17990-21580 m^3/h	19980-23980 m^3/h	21920-26300 m^3/h
								NCD13B	**NCD14A**	**NCD14E**	**NCD15**
2085	**1964**	**1850**						19440-23330 m^3/h	21870-26250 m^3/h	24300-29160 m^3/h	26650-31980 m^3/h
										NCD15D	**NCD15G**
2405	**2284**	**2170**								28620-34350 m^3/h	31390-37670 m^3/h
											NCD16B
2565	**2444**	**2330**									33760-40510 m^3/h

	EXT		2334	2654	2974	3294	3614	3934	4254	4574
Height with base		INT	2220	2540	2860	3180	3500	3820	4140	4460
645	524	410								
805	684	570	NCD9D 9200-11040 m³/h							
965	844	730	NCD10E 12030-14440 m³/h	NCD11C 13990-16790 m³/h						
1125	1004	890	NCD11E 14860-17830 m³/h	NCD12D 17280-20730 m³/h	NCD13C 19700-23640 m³/h					
1285	1164	1050	NCD13 17690-21230 m³/h	NCD14 20570-24680 m³/h	NCD14C 23450-28140 m³/h	NCD15B 26330-31590 m³/h				
1445	1324	1210	NCD13E 20520-24620 m³/h	NCD14D 23860-28630 m³/h	NCD15C 27200-32640 m³/h	NCD15E 30540-36650 m³/h	NCD16A 33880-40660 m³/h			
1765	1644	1530	NCD15A 26180-31410 m³/h	NCD15F 30440-36530 m³/h	NCD16C 34700-41640 m³/h	NCD17A 38970-46760 m³/h	NCD17D 43230-51870 m³/h	NCD18B 47490-56990 m³/h		
2085	1964	1850	NCD16 31840-38200 m³/h	NCD16D 37020-44430 m³/h	NCD17C 42210-50650 m³/h	NCD18C 47390-56870 m³/h	NCD19A 52570-63090 m³/h	NCD20A 57760-69310 m³/h	NCD21A 62940-75530 m³/h	NCD21C 68130-81750 m³/h
2405	2284	2170	NCD17 37500-45000 m³/h	NCD18 43600-52320 m³/h	NCD19 49710-59650 m³/h	NCD20 55810-66980 m³/h	NCD21 61920-74300 m³/h	NCD22 68030-81630 m³/h	NCD23 74130-88960 m³/h	NCD24 80240-96280 m³/h
2565	2444	2330	NCD17B 40330-48390 m³/h	NCD18A 46890-56270 m³/h	NCD19B 53460-64150 m³/h	NCD20B 60030-72030 m³/h	NCD21B 66590-79910 m³/h	NCD22A 73160-87790 m³/h	NCD23A 79730-95670 m³/h	NCD24A 86290-103550 m³/h

DIMENSIONS



	Section A (mm)	Section B (mm)
NCD1	645	735
NCD2	645	1055
NCD3	645	1215
NCD4	805	1055
NCD5	805	1215
NCD6	965	1055
NCD7	965	1215
NCD8	965	1375
NCD9	965	1695
NCD10	1130	1695
NCD11	1130	2015
NCD12	1285	2015
NCD13	1285	2335
NCD14	1285	2655
NCD15	2085	2015
NCD16	2085	2335
NCD17	2405	2335
NCD18	2405	2655
NCD19	2405	2975
NCD20	2405	3295
NCD21	2405	3615
NCD22	2405	3935
NCD23	2405	4255
NCD24	2405	4575

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SPL 025-130

Swimming Pool Lines air handling unit for health centres

Air flow rate 4000 ÷ 13000 m³/h

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



DESCRIPTION

The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.
The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption.
The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost. The structure and all the internal components are built to ensure the maximum resistance to corrosion

FEATURES

Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

Structure

Anodised aluminium profile with reinforced nylon corner pieces.
Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m³, fixed without screws but with panel locking profiles, doors with keyless handles.
This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.
The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

Thermal recovery section

High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract.
All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

Refrigerant circuit

Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A.
The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.
The units on request can also be realized without the refrigerant circuit. The size of the machine remains unchanged.

Fan section

Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

Filtration systems

Hot water heating coil

With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

Electric power board

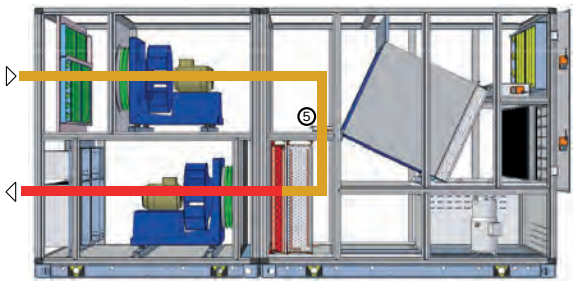
Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

OPERATING SCHEMATICS

The principal operation modes of the unit are shown in the example schematics below.

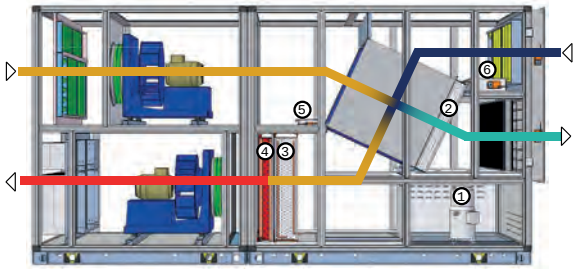
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

"START UP" CYCLE



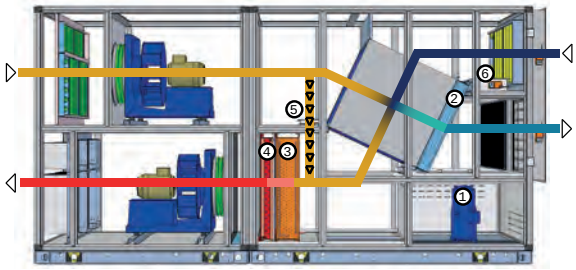
The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area.

"DEHUMIDIFICATION" CYCLE



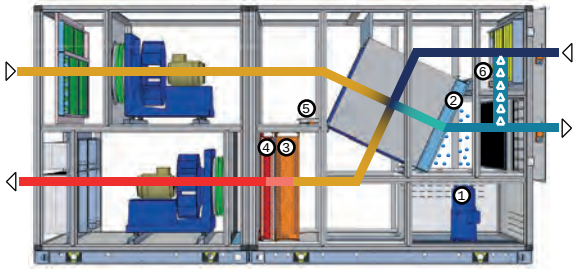
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

Dehumidification with external air



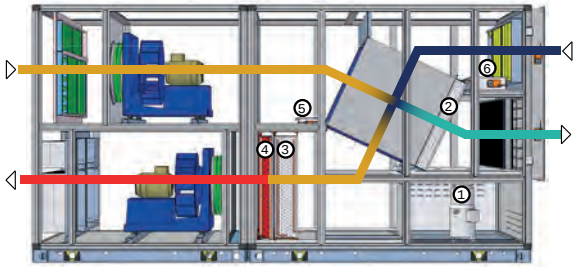
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

ehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



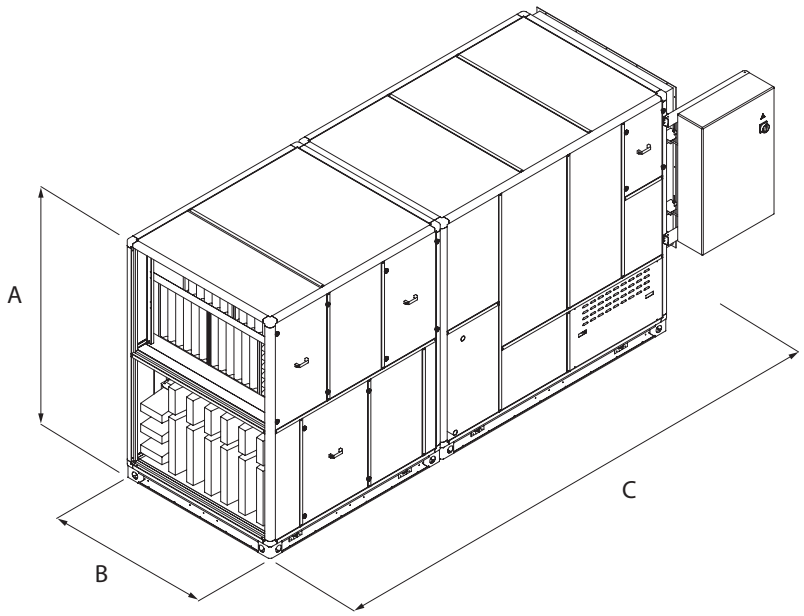
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

PERFORMANCE SPECIFICATIONS

			025	040	060	100	130
Nominal airflow (supply/extract)		M^3/h	2500	4000	6300	10000	13000
Available pressure (supply/ extract)		Pa	400	400	400	400	400
Heat recovery capacity recovered	(1)	KW	7,90	12,60	20,40	32,00	41,50
Max heat recovery efficiency	(1)	%	80,80	79,30	80,10	79,50	79,40
Refrigerant circuit recovered capacity	(1)	KW	7,50	10,50	21,30	31,70	45,70
Total recovered capacity	(1)	KW	15,40	23,10	41,60	63,70	87,30
Compressor absorbed power	(1)	KW	1,30	1,60	3,70	6,00	8,40
COP	(1)	-	11,80	14,40	11,20	10,60	10,40
COP	(2)	-	3,90	4,00	4,10	4,00	4,10
Total dehumidification capacity	(1)	Kg/h	15,50	25,20	40,10	63,70	82,70
Supply fan power input		KW	1,60	2,60	3,70	5,90	7,60
Extract fan power input		KW	1,20	1,90	2,70	4,50	5,70
Type / number of compressors		No.			Scroll / 1		
Hot water heating coil (standard)							
Capacity (without recovery active)	(1)	KW	26,10	35,40	61,60	95,30	124,50
Water flow rate	(3)	L/h	2250	3050	5300	8200	10700
Water pressure drop	(3)	KPa	23,50	43,70	33,10	48,80	46,30
Plate heat exchanger R410A/non aggressive water (standard)							
Nominal water flow rate	(4)	L/h	950	1120	2500	3600	5400
Pressure drops	(4)	KPa	19,00	19,00	31,00	32,00	33,00
Plate heat exchanger accessible non aggressive water/pool water (standard)							
Water flow rate nominal pool	(5)	L/h	1200	1400	3100	4500	6800
Pressure drop pool side	(5)	KPa	32,40	34,00	31,40	33,00	34,50
Pressure drop intermediate circuit side	(5)	KPa	21,20	22,30	20,60	21,60	22,50
Electric data							
Unit power supply					400 V-3- 50 Hz		
Maximum total current input supply fan		A	3,50	6,20	11,00	14,60	15,00
Maximum total current input extract fan		A	2,60	4,90	6,40	11,30	11,30
Unit maximum current input		A	11,60	17,10	32,40	49,30	61,30
Unit starting current		A	32,10	46,10	91,40	181,90	184,30

1. External air 0°C,80% RH; internal air 29°C,60% RH.
2. Values as per conditions of D.M. 7 april 2008 for heating only operation
3. Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve
4. Water temperature inlet/outlet non aggressive 27/37°C
5. Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C

DIMENSIONS



		025	040	060	100	130
A	mm	1765	1765	2245	2405	2405
B	mm	895	895	1055	1375	1695
C	mm	3230	3390	4190	4190	4670
Weight	Kg	900	1000	1350	2060	2600

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SPL 160-250

Swimming Pool Lines air handling unit for health centres

Air flow rate 16000 ÷ 25000 m3/h

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



DESCRIPTION

The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.
The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption.
The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost. The structure and all the internal components are built to ensure the maximum resistance to corrosion

FEATURES

Sizes

Indoor unit available in 3 sizes.

Structure

Anodised aluminium profile with reinforced nylon corner pieces.
Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m^3, fixed without screws but with panel locking profiles, doors with keyless handles.
This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.
The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

Thermal recovery section

High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract.
All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

Refrigerant circuit

Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A.
The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.
The units on request can also be realized without the refrigerant circuit. The size of the machine remains unchanged.

Fan section

Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

Filtration systems

Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

Hot water heating coil

With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

Electric power board

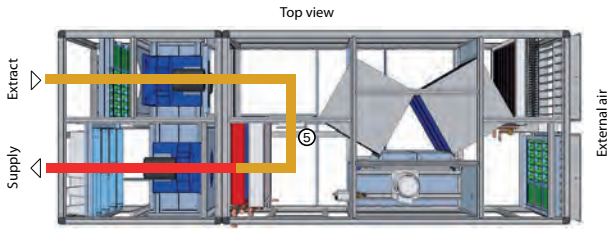
Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

OPERATING SCHEMATICS

The principal operation modes of the unit are shown in the example schematics below.

In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

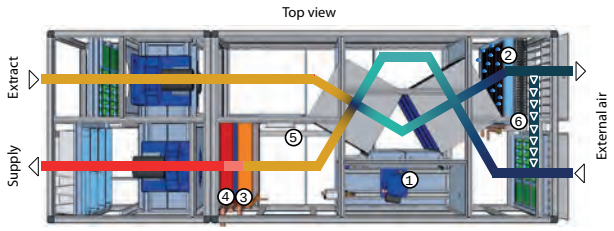
"START UP" CYCLE



The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area.

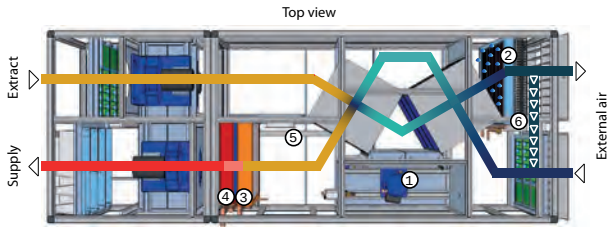
"DEHUMIDIFICATION" CYCLE

Dehumidification with external air



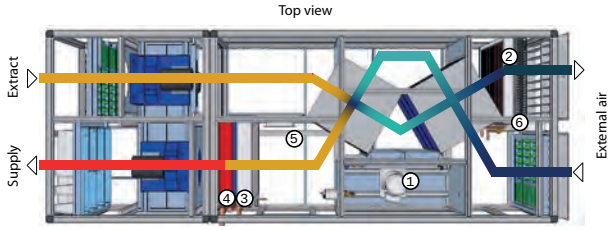
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

ehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

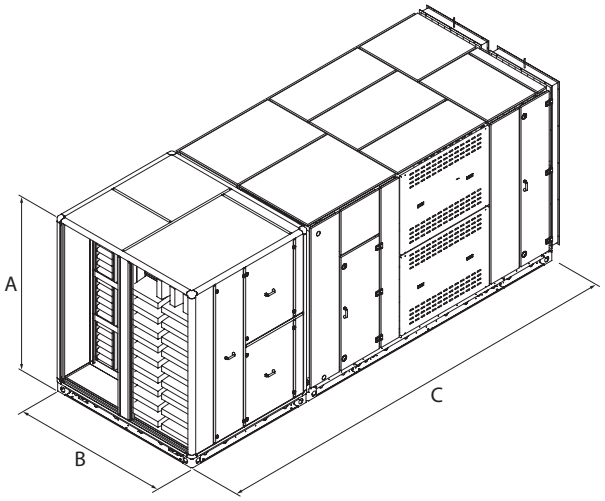
PERFORMANCE SPECIFICATIONS

SPL			160	200	250
Nominal air flow rate (supply / recovery)		m^3/h	16000	20000	25000
Available pressure (supply/recovery)		Pa	400	400	400
Heat recovery capacity recovered	(1)	kW	59,6	68,6	89,2
Max heat recovery efficiency	(1)	%	93	86	89
Refrigerant circuit recovered capacity	(1)	kW	46,3	53,6	69,4
Total recovered capacity	(1)	kW	105,9	122,2	158,6
Compressor absorbed power	(1)	kW	8,5	9,2	12,8
COP	(1)	-	12,5	13,3	12,4
COP	(2)	-	4,0	3,9	3,9
Total dehumidification capacity	(1)	kg/h	102,2	127,6	159,5
Supply fan power input		kW	10,9	13,7	17,7
Extract fan power input		kW	8,3	9,8	12,4
Type / number of compressors		no.		Scroll / 1	
Hot water heating coil (standard)					
Capacity (without recovery active)	(1)	kW	131,9	182,7	205,9
Water flow rate	(3)	l/h	11300	15700	17700
Water pressure drop	(3)	kPa	43,7	37,9	42,2
Plate heat exchanger R410A/non aggressive water (standard)					
Nominal water flow rate	(4)	l/h	5760	6450	8260
Pressure drops	(4)	kPa	33	33	33
Plate heat exchanger accessible non aggressive water/pool water (standard)					
Water flow rate nominal pool	(5)	l/h	7200	8100	10400
Pressure drop pool side	(5)	kPa	34,2	34,7	34,2
Pressure drop intermediate circuit side	(5)	kPa	22,3	22,7	22,2
Electric data					
Unit power supply				400 V - 3 ph - 50 Hz	
Maximum total current input supply fan		A	29,2	41,0	42,0
Maximum total current input extract fan		A	22,0	22,6	30,0
Unit maximum current input		A	86,2	99,6	123,0
Unit starting current		A	209,0	223,0	287,0

1. External air 0°C,80% RH; internal air 29°C,60% RH.
2. Values as per conditions of D.M. 7 april 2008 for heating only operation
3. Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.
4. Water temperature inlet/outlet non aggressive 27/37°C.
5. Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C

Preliminary technical data, subject to modification.

DIMENSIONS



SPL			160	200	250
A (including base H=120mm)	*	mm	2085	2405	2405
B	*	mm	2015	2175	2335
C	*	mm	5790	5790	6430
Weight		kg	2780	3250	3580

* The dimensions remain unchanged even if the unit, on request, is supplied without a refrigerant circuit.

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RTG 060X-125X

Roof-Top for applications in medium crowed

Cooling capacity 57,7 ÷ 128,1 kW
Heating capacity 58,1 ÷ 124,6 kW

- For medium crowding applications
- R32 refrigerant gas
- High efficiency also at partial loads
- High power modulation capacity
- Compressors and fans with Inverter
- Upgraded thermodynamic heat recovery



DESCRIPTION

Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration.
These are outdoor units using environmentally friendly R32 gas.
Being fitted to function with 50% external air (MB2, MB4, MBT and MBF versions), the units are designed for medium density applications like shopping malls, shops, offices and production areas. RTG 060X-125X
Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 and MBT versions, there is thermodynamic recovery (enhanced in the MBT configuration) of the energy contained in the expelled air, allowing for higher performance and efficiency.

VERSIONS

H Heat pump

FEATURES

Refrigerant HFC R32

Thanks to the R32 refrigerant (A2L slightly flammable), the environmental impact of the units is significantly reduced.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

Inverter compressor

All models use inverter-driven scroll compressors, which allow them to perfectly comply with the energy levels required by European regulations.
Inverter technology enables high seasonal energy efficiencies, reduced noise level at partial loads and high environmental comfort

Inverter fans

The air treatment cross-section ventilation, which represents the highest expense in terms of machine operating costs, is entrusted to the plug fans with EC brushless motors, efficiency class IE5, which enable high performance, easy flow rate adjustment, compactness, low noise, versatility and easy maintenance.
Two types of flow fans are available: the standard one and the enhanced one for a higher useful static pressure.

Axial fans

The axial fans on the source side are helical, electrically and mechanically protected by grilles, and are equipped with **brushless EC motors, efficiency class IE5.**
Electronic control of summer condensation temperature and winter evaporation temperature is standard.

Air filtration

A Coarse 55% corrugated filter according to ISO 16890 (G4 according to EN 779), with synthetic fibre filter media protected by wire mesh on both sides and a galvanised sheet steel frame is included as per standard.
The filters are placed on guides and are easily removable from the side.
Downstream it is possible to insert an additional filtration stage with ePM1 50% efficiency according to ISO 16890 (F7 according to EN 779) or ePM1 80% efficiency according to ISO 16890 (F9 according to EN 779).
As an alternative to mechanical filters, electrostatic filters can be fitted for even higher filtration efficiency and lower maintenance costs.
Air quality control systems are also available (VOC and CO2 probe).

Exchangers

The internal and external heat exchangers are made of copper pipes and aluminium louvers blocked by mechanical expansion of the pipes.
They are the high efficiency type with internally striped pipe and corrugated louvers.
To protect the louvers from corrosion, pre-painted aluminium louvers are available as an alternative.

Thermoregulation

Electronic controller able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use by means of special software. Interfaces to connect to remote supervision and control systems available as options. The electrical panel complete with all devices is easily accessible.
The free-cooling/heating and defrosting logics are particularly sophisticated. As soon as the external conditions allow it, the unit is able to automatically activate the free-cooling or free-heating mode, which cools or heats the served room, while keeping the compressors off and introducing suitably treated external air. This mode significantly reduces both energy consumption and wear of the compressors. These functions are also used when the external air energy content is not enough to cool or heat the room.

Air flow management

There are different types of supply and exhaust (if present) air flow rate control.
With constant flow rate control, air flows are kept constant at the set value regardless of the heat load and varying pressure drops of the machine/plant system.
With variable flow rate control, the air flows vary depending on the heat load between the set nominal value and the minimum value of the unit.
With variable flow rate, in addition to the benefits in terms of environmental comfort, there are also economic benefits as the modulation of the air flow rate leads to a considerable reduction in the electricity consumption of the unit compared to a unit operating with a fixed flow rate.
A function can also be enabled that in Economy mode, when the temperature set-point is reached, allows ventilation to be switched off, with considerable economic advantages.

CONFIGURATIONS

MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

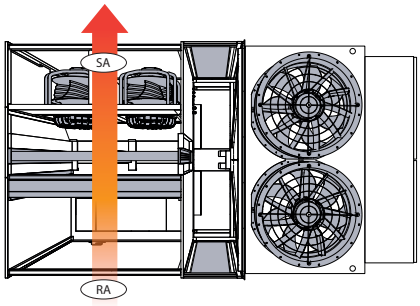
MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
If there are no extraction systems, the room will be in overpressure.
Possibility of performing freecooling/freeheating.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
Thermodynamic recovery is performed by conveying expelled air on the external heat exchangers.
Possibility of performing freecooling/freeheating.

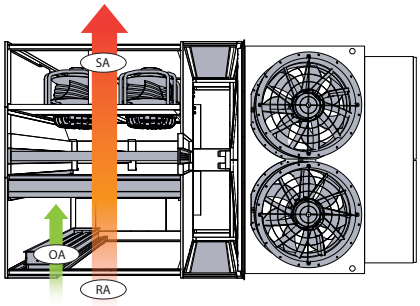
MBT: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, upgraded thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure.
The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
Possibility of performing freecooling/freeheating.
The MBT configuration allows for the upgraded thermodynamic recovery on the exhaust air by fully exploiting the energy content still present in it.
The exhaust flow rate, controlled by the dedicated exhaust fan, is conveyed to the innovative finned pack recovery coil, integrated in the cooling circuit of the unit.
The coil, perfectly hit by the air flow, recovers the energy still present in the exhaust flow and transfer it to the cooling circuit, increasing the treatment coil performance without increasing the input power of the compressors.
In summer functioning, the coil makes it possible to increase the liquid subcooling, while in winter functioning, the coil takes on part of the evaporation by operating the cooling circuit at more advantageous temperatures.

MBF: single fan section for return air, outside air and exhaust air
Recovery, external and exhaust air configuration.
The flow ventilating cross-section provides the flow and recovery useful static pressure.
The flow rate of fresh and exhaust air is achieved through the use of two modulating dampers (fresh and exhaust air) and one gravimetric damper (exhaust air).
The presence of the recirculation damper allows for total free-cooling (100% external air).
This configuration makes it possible to exploit the overpressure in the room to expel stale air (maximum 50 Pa leakage in the duct) without having to use a dedicated fan.

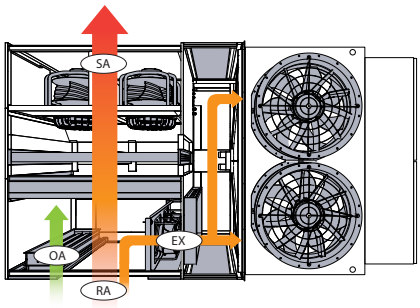
MB1



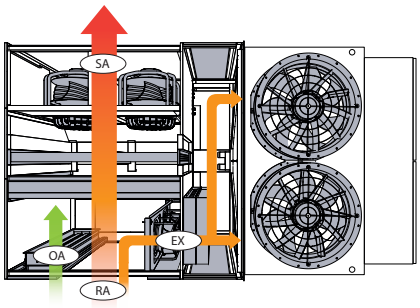
MB2



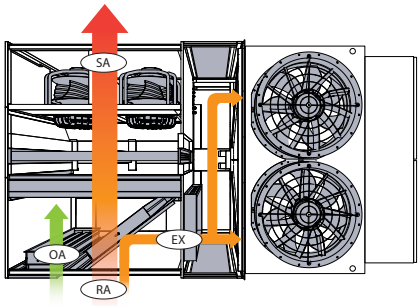
MB4



MBT



MBF



SA: Flow air
RA: Return air
OA: External air
EX: Air expelled

ACCESSORIES

Refer to the selection software for compatibility of accessories.

MB1: Single fan section - Recirculation
MB2: Single fan section - Recirculation + Renewal
MB4: Double fan section - Recirculation Renewal + Exhaust - Thermodynamic recovery
MBT: Double fan section - Recirculation + Renewal + Exhaust - Enhanced thermodynamic recovery
MBF: Single fan section - Recirculation + Renewal + Exhaust
MO: Horizontal air flow
MI: Lower air flow
MS: Upper air flow
RO: Horizontal air recovery
RI1: Lower air recovery for MB1 configuration
RI2: Lower air recovery for MB2 configuration
RI4: Lower air recovery for MB4/MBT configuration
RS1: Upper air recovery for MB1 configuration
RS2: Upper air recovery for MB2 configuration
RS4: Upper air recovery for MB4/MBT configuration
VSTD: Fans with standard static pressure
VPWR: Fans with increased static pressure
IAL: Internal coil with aluminium louvers
IPV: Internal coil with pre-painted aluminium louvers
EAL: External coil with aluminium louvers
EPV: External coil with pre-painted aluminium louvers
IALT: MBT internal coil with aluminium louvers
IPVT: MBT internal coil with pre-painted aluminium louvers
EALT: MBT external coil with aluminium louvers
EPVT: MBT external coil with pre-painted aluminium louvers
FCT: Thermal free-cooling
FCH: Enthalpy free-cooling
CMAN: Manual external damper control
SCM: Modulating external damper servocontrol
SCM-F: MBF modulating damper servocontrols
PCOST: Constant air flow rate
PVAR: Variable air flow rate
DML: Demand limit
PFS: Filter fouling control differential pressure switch
DEU: Summer dehumidification
DEUP: Summer dehumidification with post-heating
CUR: Provision for humidification control (digital contact and analogue output)
BPGC: Hot gas after-heating coil with aluminium louvers
BPGCPV: Hot gas after-heating coil with pre-painted aluminium louvers
BW2: Heating/Integration water coil with aluminium louvers

BW2PV: Heating/Integration water coil with pre-painted aluminium louvers
BW3: Water coil for recovery from refrigerated display cabinets with aluminium louvers
BW3PV: Water coil for recovery from refrigerated display cabinets with pre-painted aluminium louvers
V2V: Modulating 2-way valve + connecting pipes
V3V: Modulating 3-way valve + connecting pipes
BE: 2-stage electric heating coil (3 steps)
F7: F7 filters (ISO 16890 ePM1 55%)
F9: F9 filters (ISO 16890 ePM1 80%)
FE1: Electrostatic filters for MB1/MB2 configuration
FE4: Electrostatic filters for MB4/MBT/MBF configuration
SCO2: CO2 duct probe
SVOC: VOC duct probe
SCO2+SVOC: CO2 + VOC duct probe
ASCO2: Room CO2 probe
ASVOC: Room VOC probe
ASCO2+SAVOC: Room CO2 + VOC probe
STR: Recovery temperature probe
STA: Room temperature probe
STR+SUR: Recovery temperature and humidity probe
STA+SUA: Room temperature and humidity probe
PRT1: Remote panel up to 50m
PRT2: Remote panel up to 200m
AVG: Anti-vibration supports
MIP: Modbus TCP/IP communication protocol (standard)
MRTU: Modbus RTU communication module
BIP: Bacnet IP communication module
BMSTP: Bacnet MS/TP communication module
KON: KONNEX communication module
CAP: Hoods function
CFF: Fire/smoke contact

PERFORMANCE SPECIFICATIONS

Unit input power: at nominal air flow rate, nominal high static pressure and standard fans

MB1

Size			060	085	125
Configuration: MB1					
Cooling performances					
Cooling capacity	H	kW	57,70	77,70	121,30
Sensible cooling capacity	H	kW	46,30	64,70	88,10
Compressors absorbed power	H	kW	15,80	20,70	38,00
EER compressors	H		3,65	3,75	3,19
Unit input power	H	kW	20,1	26,9	45,5
Heating performances					
Heating capacity	H	kW	58,10	78,30	119,30
Compressors absorbed power	H	kW	12,80	17,30	30,00
Compressor COP	H		4,53	4,53	3,98
Unit input power	H	kW	16,5	22,0	37,4

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.
Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.

MB2

Size			060	085	125
Configuration: MB2					
Cooling performances					
Cooling capacity	H	kW	60,40	81,40	127,00
Sensible cooling capacity	H	kW	49,00	68,70	92,10
Compressors absorbed power	H	kW	15,90	20,80	38,40
EER compressors	H		3,79	3,91	3,30
Unit input power	H	kW	20,2	27,0	46,0
Heating performances					
Heating capacity	H	kW	58,50	78,80	119,70
Compressors absorbed power	H	kW	11,70	15,90	27,60
Compressor COP	H		5,02	4,96	4,33
Unit input power	H	kW	15,3	20,6	35,1

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external air.
Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external air.

MB4

Size			060	085	125
Configuration: MB4					
Cooling performances					
Cooling capacity	H	kW	60,90	81,90	128,10
Sensible cooling capacity	H	kW	49,10	68,80	92,40
Compressors absorbed power	H	kW	15,50	20,40	37,40
EER compressors	H		3,92	4,02	3,42
Unit input power	H	kW	20,5	27,6	46,5
Heating performances					
Heating capacity	H	kW	61,20	82,10	124,60
Compressors absorbed power	H	kW	12,00	16,00	28,00
Compressor COP	H		5,12	5,12	4,45
Unit input power	H	kW	16,4	21,8	37,2

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external and expelled air.

MBF

Size			060	085	125
Configuration: MBF					
Cooling performances					
Cooling capacity	H	kW	60,40	81,40	127,00
Sensible cooling capacity	H	kW	49,00	68,70	92,10
Compressors absorbed power	H	kW	15,90	20,80	38,40
EER compressors	H		3,79	3,91	3,30
Unit input power	H	kW	20,2	27,0	46,0
Heating performances					
Heating capacity	H	kW	58,50	78,80	119,70
Compressors absorbed power	H	kW	11,70	15,90	27,60
Compressor COP	H		5,02	4,96	4,33
Unit input power	H	kW	15,3	20,6	35,1

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external air.
Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external air.

MBT

Size			060	085	125
Configuration: MBT					
Cooling performances					
Cooling capacity	H	kW	66,00	88,80	139,10
Sensible cooling capacity	H	kW	51,50	72,20	97,00
Compressors absorbed power	H	kW	15,50	20,50	37,50
EER compressors	H		4,25	4,34	3,71
Unit input power	H	kW	20,5	27,7	46,6
Heating performances					
Heating capacity	H	kW	65,90	88,50	134,40
Compressors absorbed power	H	kW	12,50	16,60	29,10
Compressor COP	H		5,29	5,32	4,62
Unit input power	H	kW	16,9	22,4	38,3

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external and expelled air.

ENERGY INDEX

Size			060	085	125
Energy index					
SEER	H	W/W	5,94	6,41	5,81
ηsc	H	%	234,60	253,50	229,20
SCOP	H	W/W	3,74	3,83	3,59
ηsh	H	%	146,70	150,30	140,70

■ *In MB1 configuration according to EN 14825:2022*

INDICES FOR ACCESS TO INCENTIVES

Size			060	085	125
Configuration: MB1					
Indices for access to incentives					
Cooling capacity	H	kW	58,60	79,00	-
EER	H	W/W	3,10	3,14	-
Heating capacity	H	kW	56,90	76,70	-
COP	H	W/W	3,71	3,73	-

■ *In MB1 configuration according to EN 14511-3:2022*

GENERAL TECHNICAL DATA

Size			060	085	125
Power supply					
Power supply	H		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor					
Type	H	type	Scroll	Scroll	Scroll
Number	H	no.	2	2	2
Circuits	H	no.	2	2	2
Refrigerant	H	type	R32	R32	R32
Compressor regulation	H	Type	Inverter	Inverter	Inverter
Sound data					
Sound power level	H	dB(A)	84,0	85,0	89,0

■ *Sound power in MB1 configuration at nominal operating conditions calculated on the basis of measurements in accordance with UNI EN ISO 9614-1/2*

FANS

External fans

Size			060	085	125
Configuration: MB1, MB2, MB4, MBF, MBT					
External fans					
Type	H	type	Assiali EC	Assiali EC	Assiali EC
Number	H	no.	2	2	2

Internal flow fans

Size			060	085	125
Configuration: MB1, MB2, MB4, MBF, MBT					
Delivery					
Type	H	type		Plug fan EC	
Number	H	no.	1	2	2
Nominal air flow rate	H	m^3/h	12700	17500	23000
Minimum air flow rate	H	m^3/h	9500	13000	17000
Maximum air flow rate	H	m^3/h	14000	20500	25500
Nominal high static pressure (EN14511)	H	Pa	200	200	250

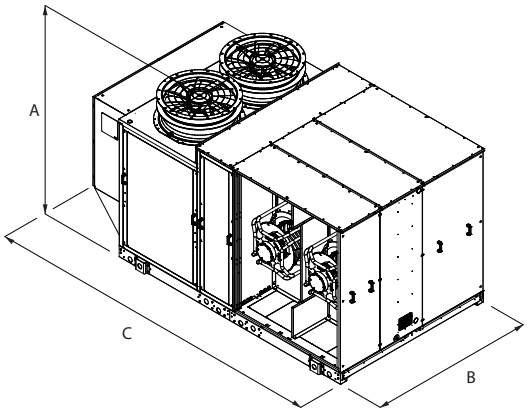
Expulsion fan MB4

Size			060	085	125
Configuration: MB4					
Exhaust					
Type	H	type		Plug fan EC	
Number	H	no.	1	2	3
Nominal useful head	H	Pa	100	100	125

Expulsion fan MBT

Size			060	085	125
Configuration: MBT					
Exhaust					
Type	H	type		Plug fan EC	
Number	H	no.	1	2	3
Nominal useful head	H	Pa	100	100	125

DIMENSIONS



Size			060	085	125
Dimensions and weights					
A	H	mm	1570	1900	2165
B	H	mm	2200	2200	2200
C	H	mm	3305	3905	3905
Empty weight	H	kg	1193	1518	1597

■ *Empty weight: in MB1 configuration without accessories*

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RTX-N1-N8

Roof-Top for applications in medium crowed

Cooling capacity 12,70 ÷ 49,95 kW
Heating capacity 13,50 ÷ 50,79 kW

- For medium crowding applications
- Upgraded thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free-cooling / enthalpic free-cooling / photocatalytic system option



DESCRIPTION

Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas.
Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

CONFIGURATIONS

MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).
If there are no extraction systems, the room will be in overpressure.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
The double flow and exhaust ventilating cross-section allows for partial free-cooling and has the thermodynamic recovery function.
Advantages of thermodynamic recovery (MB4):
— Energy recovery from the exhaust air flow that would otherwise be lost
— No further components are introduced and, therefore, there are no additional pressure drops
— Cooling circuit functioning with heat sources at more advantageous temperatures
— Reduction of defrosting cycles
— Increase in thermal and cooling efficiency
— Efficiency increase (EER/COP)

FEATURES

— 2 cooling circuits with electronic thermostatic expansion valve;
— High efficiency scroll compressors with low power consumption;
— Finned pack direct expansion internal and external exchangers;
— Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
— Axial fan unit for extremely silent functioning positioned on the condensing section.
— Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and $CO_{2\ probe}$);
— The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003 (self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
— The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.

State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.
Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.
Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

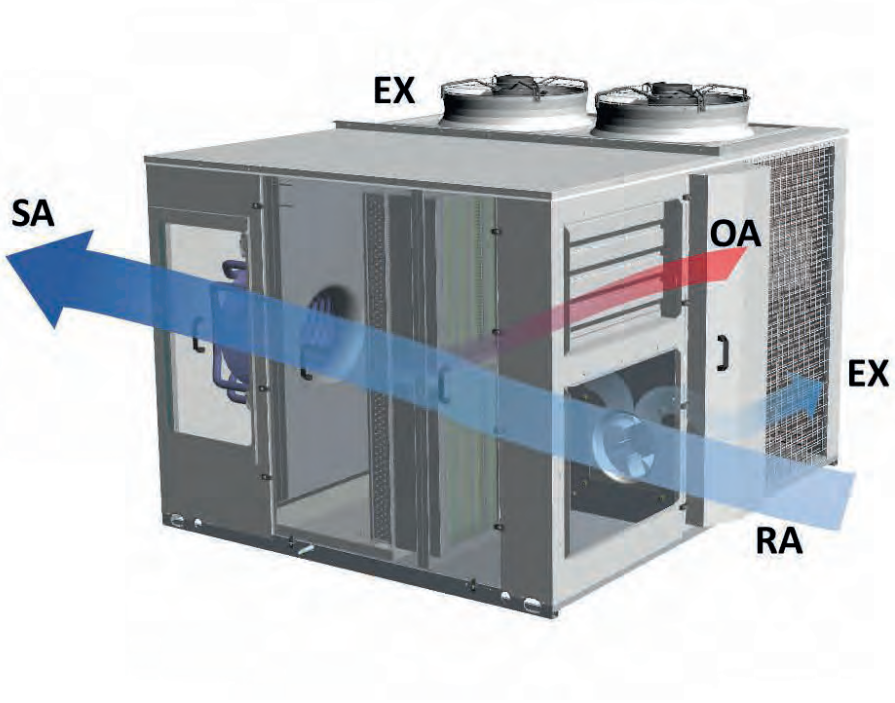
Room air quality

Special attention was paid to the quality of the room air, entrusted to the standard 55% COARSE efficiency filters. F7 filters are also available as optional.

Active thermodynamic recovery

In the MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency.
All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

MB4 CONFIGURATION WITH DOUBLE VENTILATING SECTION FOR RETURN AIR, EXTERNAL AIR AND EXPELLED AIR. STANDARD FREE-COOLING AND THERMODYNAMIC HEAT RECOVERY FUNCTION



SA Supply air
EX Exhaust air
OA Fresh air
RA Return air

ACCESSORIES

AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
AXECP: EC axial fans with available useful static pressure.
BAC: Interface card BACnet MS/TP pCOnet.
BE: Electric heating coil 2 stages.
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BPGC: After heating coil with hot gas.
BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
DP: Dehumidification control (humidity probe in recovery) and of after-heating (if present).
FCT: Partial Temperature Free-Cooling for MB2, MB4 versions.
FT7: F7 efficiency pocket filters positioned on the supply air flow.
GP: External coil protection grid.
LW: Interface card LonWorks.
PRT1: Wall/recessed (up to 50 m) remote control panel.
PRT2: Wall/recessed (up to 200 m) remote control panel.
PSF4: Differential pressure switch signalling dirty recovery and renewal filters (if any).
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
RFC: Smoke detector and damper management.
RS: Serial card BMS RS485.
SCM: Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).
SCMRM: Modulating Servo-control with spring return.
SCO2: Probe CO2 (not available on MB1 fittings).
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

Size		N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1									
Cooling performances (1)									
Cooling capacity	kW	12,70	15,50	19,10	22,20	28,60	33,00	43,00	47,00
Sensible cooling capacity	kW	8,60	10,40	12,80	14,80	19,00	22,40	28,80	32,10
Compressors absorbed power	kW	3,30	4,20	5,00	6,00	7,20	8,70	11,40	12,50
EER compressors		3,87	3,71	3,82	3,69	3,98	3,79	3,75	3,75
Heating performances (2)									
Heating capacity	kW	13,50	16,10	19,90	23,00	29,60	34,00	44,70	48,50
Compressors absorbed power	kW	3,07	3,65	4,28	5,15	6,23	6,86	9,43	10,02
Compressor COP		4,40	4,41	4,64	4,47	4,75	4,96	4,74	4,84

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

Size		N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB2									
Cooling performances (1)									
Cooling capacity	kW	13,42	16,34	20,16	23,35	30,21	34,79	45,26	49,44
Sensible cooling capacity	kW	8,92	10,86	13,40	15,40	19,70	23,40	30,00	33,50
Compressors absorbed power	kW	3,33	4,22	5,04	6,07	7,29	8,85	11,65	12,74
EER compressors		4,03	3,87	4,00	3,85	4,14	3,93	3,88	3,88
Heating performances (2)									
Heating capacity	kW	13,65	16,24	20,02	23,18	29,87	34,22	45,17	48,94
Compressors absorbed power	kW	2,77	3,31	3,86	4,65	5,62	6,15	8,58	9,22
Compressor COP		4,92	4,91	5,18	4,99	5,32	5,57	5,26	5,31

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

Size		N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB4									
Cooling performances (1)									
Cooling capacity	kW	13,49	16,49	20,33	23,58	30,45	35,16	45,65	49,95
Sensible cooling capacity	kW	8,93	10,91	13,40	15,50	19,80	23,50	30,20	33,60
Compressors absorbed power	kW	3,27	4,12	4,92	5,90	7,13	8,59	11,39	12,43
EER compressors		4,13	4,00	4,13	4,00	4,27	4,10	4,01	4,02
Heating performances (2)									
Heating capacity	kW	14,00	16,81	20,69	24,05	30,77	35,50	46,63	50,79
Compressors absorbed power	kW	2,81	3,36	3,92	4,73	5,71	6,27	8,74	9,38
Compressor COP		4,98	5,00	5,28	5,08	5,39	5,67	5,33	5,41

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			N1	N2	N3	N4	N5	N6	N7	N8
Energy index										
SEER	H	W/W	3,73	3,60	3,76	3,70	3,86	3,86	3,80	3,77
ηsc	H	%	146.1%	141.2%	147.5%	144.8%	151.5%	151.5%	148.8%	147.8%
Pdesignh	H	kW	7	9	11	13	16	19	25	26
SCOP	H	W/W	3,47	3,34	3,46	3,36	3,29	3,50	3,47	3,44
ηsh	H	%	135.6%	130.5%	135.4%	131.2%	128.7%	137.1%	135.7%	134.4%

GENERAL TECHNICAL DATA

Size		N1	N2	N3	N4	N5	N6	N7	N8
Power supply									
Power supply		400V~3N 50Hz	400V~3N 50Hz	400V~3N 50Hz	400V~3N 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor									
Type	type	Scroll							
Number	no.	2	2	2	2	2	2	2	2
Circuits	no.	2	2	2	2	2	2	2	2
Refrigerant	type	R410A							
Sound data									
Sound power level	dB(A)	73,3	73,7	76,4	76,3	81,2	79,7	82,8	82,9
Sound pressure level (1)	dB(A)	65,3	65,8	68,5	68,3	73,2	71,7	74,8	74,9

(1) MB1 configuration sound pressure measured in free field (Q=2), 1m away from the outer surface of the ducted unit, high static pressure 50 Pa (EN ISO 9614-2).. 3 dB(A) tolerance on sound power level (Eurovent 8/1).

FANS

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1, MB2, MB4										
External fans										
Type	H	type	axials	axials	axials	axials	axials	axials	axials	axials
Number	H	no.	2	2	2	2	2	2	2	2

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1, MB2, MB4										
Internal fans										
Nominal air flow rate	H	m^3/h	2000	2800	3500	4000	5000	6500	8000	9500
Minimum air flow rate	H	m^3/h	1800	1800	2700	2700	4000	4000	6500	6500
Maximum air flow rate	H	m^3/h	2900	2900	4100	4100	6900	6900	10100	10100

Size			09	10	11	12	13	14	15	16
Configuration: MBT										
Exhaust										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2

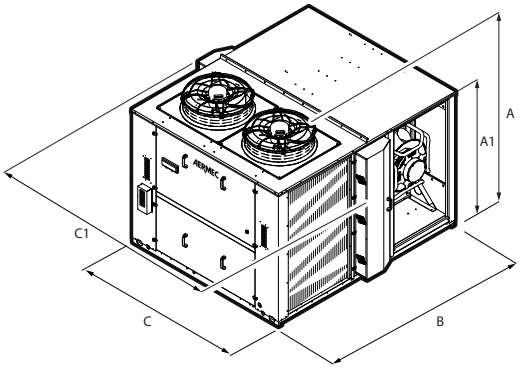
Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1, MB2										
Delivery										
Type	H	type	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC
Number	H	no.	1	1	1	1	1	1	1	1
Maximum useful head (1)	H	Pa	755	575	460	555	435	460	575	765
High static pressure (EN14511) (1)	H	Pa	100	100	124	124	124	150	150	200

(1) At the nominal/maximum flow rate with a new, clean air filter.

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB4										
Delivery										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	1	1	1	1	1
Maximum useful head (1)	H	Pa	755	575	460	555	435	460	575	765
High static pressure (EN14511) (1)	H	Pa	100	100	124	124	124	150	150	200

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1										
Dimensions and weights										
A	H	mm	1170	1170	1470	1470	1610	1610	1710	1710
A1	H	mm	910	910	1210	1210	1410	1410	1510	1510
B	H	mm	1460	1460	1460	1460	1860	1860	2310	2310
C	H	mm	1560	1560	1560	1560	1910	1910	1910	1910
C1	H	mm	-	-	-	-	-	-	-	-
Empty weight	H	kg	335	335	405	405	594	594	745	745

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB2										
Dimensions and weights										
A	H	mm	1170	1170	1470	1470	1610	1610	1710	1710
A1	H	mm	910	910	1210	1210	1410	1410	1510	1510
B	H	mm	1460	1460	1460	1460	1860	1860	2310	2310
C	H	mm	1560	1560	1560	1560	1910	1910	1910	1910
C1	H	mm	-	-	-	-	-	-	-	-
Empty weight	H	kg	335	335	405	405	594	594	745	745

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB4										
Dimensions and weights										
A	H	mm	1170	1170	1470	1470	1610	1610	1710	1710
A1	H	mm	910	910	1210	1210	1410	1410	1510	1510
B	H	mm	1460	1460	1460	1460	1860	1860	2310	2310
C	H	mm	-	-	-	-	-	-	-	-
C1	H	mm	1850	1850	1850	1850	2200	2200	2200	2200
Empty weight	H	kg	345	345	429	429	619	619	775	775

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RTX 09-16

Roof-Top for applications in medium crowed

Cooling capacity 50 ÷ 135 kW
Heating capacity 49 ÷ 141 kW

- For medium crowding applications
- Upgraded thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free-cooling / enthalpic free-cooling / photocatalytic system option



DESCRIPTION

Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration.
RTX 09-16units are designed fot medium crowding applications, like shopping malls, shops, offices , production areas being designed for operation with 30% external and expelled air (version MB3). The unit based on the version and selected accessories allows the management of the free-cooling operation, and can be equipped with a recuperator to recover the energy contained in the exaust air allowing higher perfomances and efficiencies.

VERSIONS

F Cooling only
H Heat pump.

FEATURES

Refrigerant circuit

functioning with R410A refrigerant, consisting of scroll compressors in "uneven" tandem configuration (except for sizes 09, 10 and 14) to ensure maximum energy savings at partial loads and better adaptability to system demands, providing only the energy actually needed. The compressors are equipped with electric resistances on the guards and thermal protection on the exhaust. The compressor compartment is isolated from the air flow.

Ventilation

The air treatment cross-section ventilation, which represents the highest expense in terms of machine operating costs, is entrusted to the plug fans with EC brushless motors which enable high performance, easy flow rate adjustment, compactness, low noise, versatility and easy maintenance. Furthermore, a special adaptive logic allows you to adjust the air flow rate to actual system demand with further advantages in terms of consumption reduction.

Axial fans

The axial fans, located in the condensing section of the unit, are the helical type, statically and dynamically balanced, protected electrically and mechanically by grids. Electronic condensation control is optional in F versions and condensation and evaporation during winter functioning in H versions.
The fans are also available with electronically controlled (EC) permanent magnet synchronous motor.

Exchangers

The internal and external heat exchangers are finned pack direct expansion, made with copper pipes arranged in staggered rows and mechanically expanded to better adhere to the collar of the louvers. The louvers are made of aluminium with a special corrugated surfaces, suitably spaced to ensure maximum heat exchange yield.

Air filtration

Entrusted to a filter with 55% Coarse efficiency (according to EN ISO 16890) on the fresh air flow.
Also available: compact filter with ePM1 50% efficiency or ePM1 80% efficiency (according to EN ISO 16890) and electronic filter on fresh air flow. Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and CO2 probe).

Cleaning system with photocatalytic lamp

The Photocatalytic Oxidation technology generates natural oxidising ions capable of attracting and destroying the pollutants present in the air and on surfaces, by means of the combined action of UV rays with a catalyst structure composed of a four-metal alloy, mainly consisting of TiO_2 (titanium dioxide).

Thermoregulation

Electronic controller able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use by means of special software. Interfaces to connect to remote supervision and control systems available as options. The electrical panel complete with all devices is easily accessible.
The free-cooling/heating and defrosting logics are particularly sophisticated. As soon as the external conditions allow it, the unit is able to automatically activate the free-cooling or free-heating mode, which cools or heats the served room, while keeping the compressors off and introducing suitably treated external air. This mode significantly reduces both energy consumption and wear of the compressors. These functions are also used when the external air energy content is not enough to cool or heat the room. In this case, the thermal cooling capacity is integrated by the compressors.

CONFIGURATIONS

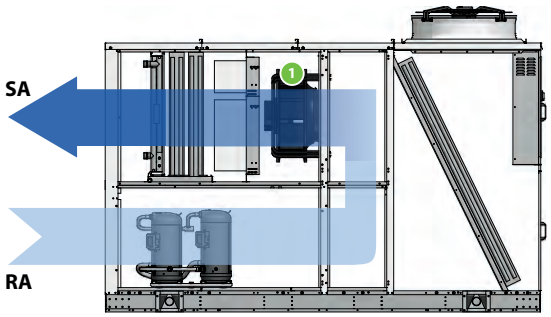
MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).
If there are no extraction systems, the room will be in overpressure.

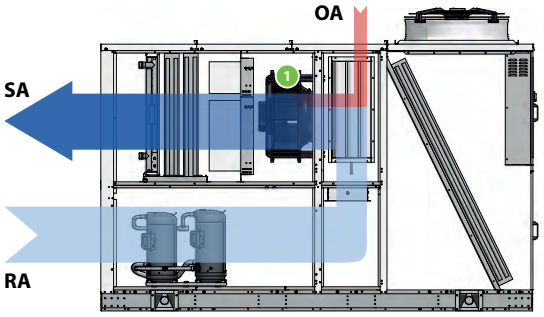
MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.
The double flow and recovery ventilating cross-section allows for total free-cooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.
Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
The double flow and exhaust ventilating cross-section allows for partial free-cooling.
As for the MB3 version, it has the thermodynamic recovery function.
Advantages of thermodynamic recovery (MB3 - MB4 version):
- Energy recovery from the exhaust air flow that would otherwise be lost
- No further components are introduced and, therefore, there are no additional pressure drops
- Cooling circuit functioning with heat sources at more advantageous temperatures
- Reduction of defrosting cycles
- Increase in thermal and cooling efficiency
- Efficiency increase (EER/COP)

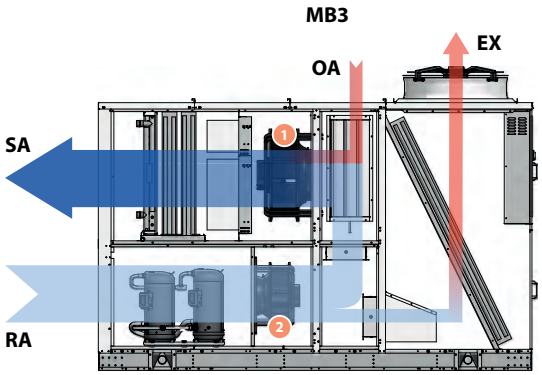
MB1



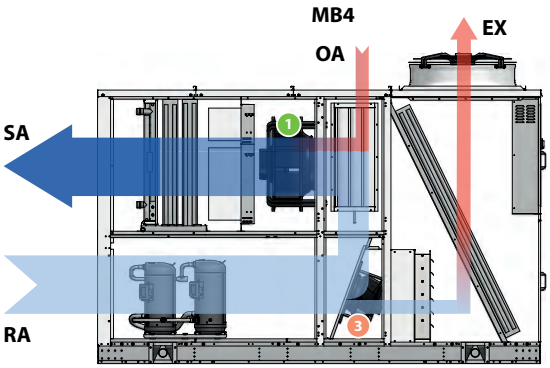
MB2



MB3



MB4



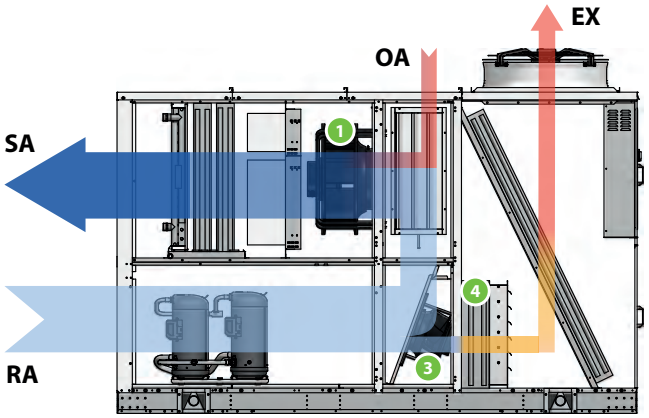
SA supply air
RA fresh air
OA fresh air
EX Exhaust air

1 Delivery fan
2 Return fan
3 Expulsion fan

MBT: DOUBLE VENTILATING CROSS-SECTION (FLOW AND EXPULSION) FOR RECOVERY AIR, EXTERNAL AIR AND EXHAUST AIR, UPGRADED THERMODYNAMIC RECOVERY.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure.
The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
The double flow and exhaust ventilating cross-section allows for partial free-cooling.
The MBT configuration allows for the upgraded thermodynamic recovery on the exhaust air by fully exploiting the energy content still present in it. The exhaust flow rate, controlled by the dedicated exhaust fan, is conveyed to the innovative finned pack recovery coil, integrated in the cooling circuit of the unit.
The coil, perfectly hit by the air flow, recovers the energy still present in the exhaust flow and transfer it to the cooling circuit, increasing the treatment coil performance without increasing the input power of the compressors.
In summer functioning, the coil makes it possible to increase the liquid subcooling, while in winter functioning, the coil takes on part of the evaporation by operating the cooling circuit at more advantageous temperatures.
Advantages of upgraded thermodynamic recovery (MBT version):
- High heat exchange efficiency thanks to the dedicated recovery coil
- Further increase in unit cooling and heating capacity
- Further increase in unit efficiency (EER/COP)
- Reduced additional air side pressure drops (expelled air side only)

— The unit remains compact
— In heating functioning, the defrost cycles are further reduced due to the increase in evaporation temperature. The result is an increase in efficiency and greater room comfort.
— Compared to traditional passive recuperators, in heating functioning it allows for exhaust air recovery even with low temperature difference between external and indoor air (mild winters)
— Compared to traditional passive recuperators, in cooling functioning it allows for exhaust air recovery even with low temperature difference between external and indoor air (continental and temperate climate)
— The presence of the dedicated coil determines the recovery efficiency that can be used in the energy certification calculations.



SA supply air
RA fresh air
OA fresh air
EX Exhaust air

1 Delivery fan
2 Return fan
3 Expulsion fan
4 Dedicated thermodynamic recovery coil

ACCESSORIES

AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
AXECP: EC axial fans with available useful static pressure.
BAC: Interface card BACnet MS/TP pCOnet.
BE: Electric heating coil 2 stages.
BEM: Modulating electric heating coil.
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BPGC: After heating coil with hot gas.
BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
CF: Flue, only on unit with gas burner module.
CUR: Humidification control (humidity probe in recovery, limit humidity probe in supply , contact ON/OFF and modulating analog output).
DCPR: AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
DP: Dehumidification control (humidity probe in recovery) and of after-heating (if present).
FCT: Partial Temperature Free-Cooling for MB2, MB4 versions.
FT7: F7 efficiency pocket filters positioned on the supply air flow.
FT9: Pocket filters F9 efficiency placed on the flow of supply air.
FTE: Electronic filters placed on the flow of supply air.
FTH: Enthalpy free-cooling.
GP: External coil protection grid.
Gx: Heating module with gas burner.
LFX: Device with photocatalytic effect.
LW: Interface card LonWorks.
MAN: High and low pressure gauges.
MSSM: Flow silencer module, only for rear flow.
MSSR: Recovery silencer module, only for rear air recovery.
PRT1: Wall/recessed (up to 50 m) remote control panel.
PRT2: Wall/recessed (up to 200 m) remote control panel.
PSFT: Differential pressure switch signalling dirty filters.
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
RF: Smoke detector.
RFC: Smoke detector and damper management.
RS: Serial card BMS RS485.
SCM: Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).
SCMRM: Modulating Servo-control with spring return.
SCO2: Probe CO2 (not available on MB1 fittings).
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
UP: Manufacturer of immersed electrodes supplied and steam ramp installed.
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

MB1

Size		09	10	11	12	13	14	15	16
Configuration: MB1									
Cooling performances (1)									
Cooling capacity	kW	50,00	60,10	68,60	81,00	93,40	103,50	114,00	125,30
Sensible cooling capacity	kW	40,10	46,10	52,70	63,20	70,90	81,80	89,30	97,10
Compressors absorbed power	kW	11,90	14,40	18,80	17,90	23,10	25,60	30,50	35,50
EER compressors		4,20	4,17	3,65	4,53	4,04	4,04	3,74	3,53
Heating performances (2)									
Heating capacity	kW	49,40	61,10	69,30	80,60	93,70	102,20	113,70	126,60
Compressors absorbed power	kW	9,80	12,20	15,50	15,70	20,60	21,00	24,40	28,40
Compressor COP		5,04	5,01	4,47	5,13	4,55	4,87	4,66	4,46

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB2

Size		09	10	11	12	13	14	15	16
Configuration: MB2									
Cooling performances (1)									
Cooling capacity	kW	52,90	63,30	72,30	85,30	98,40	108,80	120,10	131,60
Sensible cooling capacity	kW	42,70	48,80	55,90	67,10	75,00	86,70	94,80	102,80
Compressors absorbed power	kW	12,10	14,60	19,00	18,10	23,30	25,90	30,90	35,90
EER compressors		4,37	4,34	3,81	4,71	4,22	4,20	3,89	3,67
Heating performances (2)									
Heating capacity	kW	50,50	61,90	70,60	82,20	94,90	103,60	115,30	128,10
Compressors absorbed power	kW	9,00	11,20	14,10	14,30	18,90	19,20	22,50	26,00
Compressor COP		5,61	5,53	5,01	5,75	5,02	5,40	5,12	4,93

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB3

Size		09	10	11	12	13	14	15	16
Configuration: MB3									
Cooling performances (1)									
Cooling capacity	kW	53,40	63,70	73,10	86,10	99,30	110,00	121,30	133,30
Sensible cooling capacity	kW	43,00	48,90	56,20	67,40	75,30	87,00	95,10	103,20
Compressors absorbed power	kW	11,80	14,20	18,50	17,70	22,80	25,10	30,10	34,80
EER compressors		4,53	4,49	3,95	4,86	4,36	4,38	4,03	3,83
Heating performances (2)									
Heating capacity	kW	52,10	64,10	74,10	85,00	98,60	107,80	120,60	134,30
Compressors absorbed power	kW	9,20	11,40	14,40	14,60	19,10	19,40	22,90	26,70
Compressor COP		5,66	5,62	5,15	5,82	5,16	5,56	5,27	5,03

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB4

Size		09	10	11	12	13	14	15	16
Configuration: MB4									
Cooling performances (1)									
Cooling capacity	kW	53,40	63,70	73,10	86,10	99,30	110,00	121,30	133,30
Sensible cooling capacity	kW	43,00	48,90	56,20	67,40	75,30	87,00	95,10	103,20
Compressors absorbed power	kW	11,80	14,20	18,50	17,70	22,80	25,10	30,10	34,80
EER compressors		4,53	4,49	3,95	4,86	4,36	4,38	4,03	3,83
Heating performances (2)									
Heating capacity	kW	52,10	64,10	74,10	85,00	98,60	107,80	120,60	134,30
Compressors absorbed power	kW	9,20	11,40	14,40	14,60	19,10	19,40	22,90	26,70
Compressor COP		5,66	5,62	5,15	5,82	5,16	5,56	5,27	5,03

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MBT

Size			09	10	11	12	13	14	15	16
Configuration: MBT										
Cooling performances (1)										
Cooling capacity		kW	57,10	67,80	78,00	90,50	103,70	116,90	128,80	140,60
Sensible cooling capacity		kW	46,60	53,00	61,20	71,90	79,70	94,00	102,60	110,60
Compressors absorbed power		kW	11,80	14,20	18,50	17,70	22,80	25,10	30,10	34,80
EER compressors			4,84	4,77	4,22	5,11	4,55	4,66	4,28	4,04
Heating performances (2)										
Heating capacity		kW	55,40	68,00	78,30	90,10	103,60	114,40	127,50	141,40
Compressors absorbed power		kW	9,20	11,40	14,40	14,60	19,10	19,40	22,90	26,70
Compressor COP			6,02	5,96	5,44	6,17	5,42	5,90	5,57	5,30
Recovery efficiency		%	84%	92%	87%	90%	85%	85%	82%	78%

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			09	10	11	12	13	14	15	16
Energy index										
SEER	H	W/W	4,24	3,94	3,76	3,92	3,89	4,22	4,10	4,05
ηsc	H	%	166.6%	154.5%	147.2%	153.9%	152.7%	165.7%	161.1%	159.1%
Pdesignh	H	kW	29	34	38	46	52	57	62	71
SCOP	H	W/W	3,59	3,50	3,30	3,27	3,22	3,47	3,41	3,38
ηsh	H	%	140.5%	137.0%	128.8%	127.7%	126.0%	135.9%	133.5%	132.3%

GENERAL TECHNICAL DATA

Size			09	10	11	12	13	14	15	16
Power supply										
Power supply	H		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor										
Type	H	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	H	no.	2	2	2	2	2	2	2	2
Circuits	H	no.	1	1	1	1	1	1	1	1
Refrigerant	H	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Partialisation step	H	no.	2	2	3	3	3	2	3	3

FANS

External fans

Size			09	10	11	12	13	14	15	16
Configuration: MB1, MB2, MB3, MB4, MBT										
External fans										
Type	H	type	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC
Number	H	no.	2	2	2	2	2	2	2	2

Internal fans MB1-MB2-MB3-MB4-MBT

Size			09	10	11	12	13	14	15	16
Configuration: MB1, MB2, MB3, MB4, MBT										
Internal fans										
Nominal air flow rate	H	m^3/h	9500	11000	13000	15000	17000	20000	22000	24000
Minimum air flow rate	H	m^3/h	6650	7700	9100	10850	12600	14000	15400	16800
Maximum air flow rate	H	m^3/h	9500	11000	13000	15500	18000	20000	22000	24000

Internal recovery fans

Size			09	10	11	12	13	14	15	16
Configuration: MB3										
Recovery										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2

Expulsion fan MB4-MBT

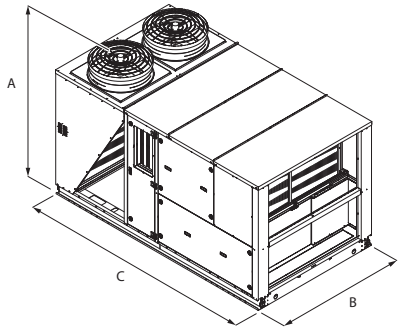
Size			09	10	11	12	13	14	15	16
Configuration: MBT										
Exhaust										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2

Internal flow fans

Size			09	10	11	12	13	14	15	16
Configuration: MB1, MB2, MB3, MB4, MBT										
Delivery										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2
Maximum useful head (1)	H	Pa	770	510	445	555	740	640	525	675
High static pressure (EN14511) (1)	H	Pa	200	200	200	200	250	250	250	300

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size			09	10	11	12	13	14	15	16
Dimensions and weights										
A	H	mm	2061	2061	2061	2373	2373	2440	2440	2440
B	H	mm	1900	1900	1900	2100	2100	2200	2200	2200
C	H	mm	3400	3400	3400	3400	3400	4000	4000	4000

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RTX-17-23

Roof-Top for applications in medium crowed

Cooling capacity 151 ÷ 307 kW
Heating capacity 152 ÷ 310 kW

- For medium crowding applications
- Thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free cooling / Enthalpy free cooling



DESCRIPTION

Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration.
The RTX 09-16 units are designed for installation in places with an average degree of crowding such as shopping centres, shops, offices and production sites, as operation uses 30% outside expelled air (versions MB3 and MB4). Depending on the version and the accessories chosen, the unit can manage free cooling mode. Versions MB3 and MB4 feature the thermodynamic recovery of the energy contained in the exhaust air, leading to higher performance and efficiency levels.

VERSIONS

F Cooling only
H Heat pump.

CONFIGURATIONS

MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).
If there are no extraction systems, the room will be in overpressure.

MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.
The double flow and recovery ventilating cross-section allows for total free-cooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.
Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
The double flow and exhaust ventilating cross-section allows for partial free-cooling.
As for the MB3 version, it has the thermodynamic recovery function.
Advantages of thermodynamic recovery (MB3 - MB4 version):
— Energy recovery from the exhaust air flow that would otherwise be lost
— No further components are introduced and, therefore, there are no additional pressure drops
— Cooling circuit functioning with heat sources at more advantageous temperatures
— Reduction of defrosting cycles
— Increase in thermal and cooling efficiency
— Efficiency increase (EER/COP)

FEATURES

— 2 cooling circuits with electronic thermostatic expansion valve;
— Scroll compressors (UNEVEN tandem) with high capacity and low electrical power consumption;
— Finned pack direct expansion internal and external exchangers;
— Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
— Axial fan unit for extremely silent functioning positioned on the condensing section.
— Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and $CO_{2\ probe}$);
— The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003

(self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
— The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.
State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.
Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

Maximum seasonal efficiency

To improve the efficiency of the cooling circuit, tandem scroll compressors of different power levels are used (UNEVEN compressors on all sizes). This distinctive trait, combined with the use of next generation fans, means reduced consumption and enhanced adaptability to system requests (particularly in partial load operation), guaranteeing boosted seasonal efficiency levels.

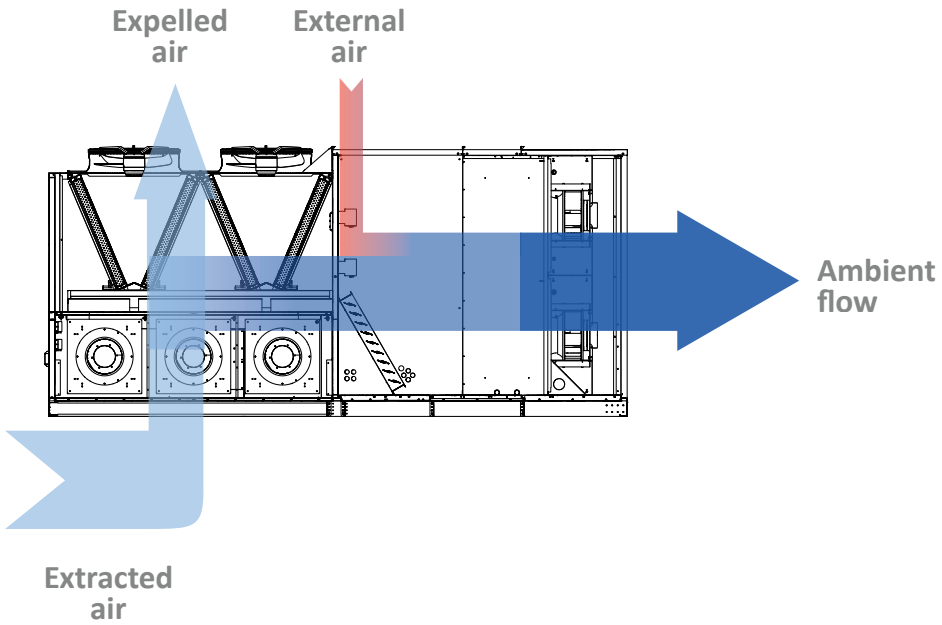
Room air quality

Special attention has been paid to the quality of the air in the room, entrusted to filters that ensure 55% COARSE efficiency as standard. There is also the option of F7, F9 or electronic filters on the fresh air flow.

Active thermodynamic recovery

In the MB3-MB4 configuration, the unit with thermodynamic recovery function also takes advantage of the energy contained in the exhaust air, which would otherwise be lost; this ensures better performance and efficiency.
All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

MB3 CONFIGURATION WITH TWIN FAN SECTION FOR RECIRCULATION AIR, OUTSIDE AIR AND EXHAUST AIR. TOTAL FREE COOLING FUNCTION (WITH 100% OUTSIDE AIR) AND THERMODYNAMIC RECOVERY FUNCTION AS STANDARD.



ACCESSORIES

AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
AXECP: EC axial fans with available useful static pressure.
BAC: Interface card BACnet MS/TP pCOnet.
BE: Electric heating coil 2 stages.
BEM: Modulating electric heating coil.
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BPGC: After heating coil with hot gas.
BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
CF: Flue, only on unit with gas burner module.
CUR: Humidification control (humidity probe in recovery, limit humidity probe in supply , contact ON/OFF and modulating analog output).
DCPR: AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
DP: Dehumidification control (humidity probe in recovery) and of after-heating (if present).
FCT: Partial Temperature Free-Cooling for MB2, MB4 versions.
FT7: F7 efficiency pocket filters positioned on the supply air flow.
FT9: Pocket filters F9 efficiency placed on the flow of supply air.
FTE: Electronic filters placed on the flow of supply air.
FTH: Enthalpy free-cooling.
GP: External coil protection grid.
Gx: Heating module with gas burner.
LFX: Device with photocatalytic effect.
LW: Interface card LonWorks.
MAN: High and low pressure gauges.
MSSM: Flow silencer module, only for rear flow.

MSSR: Recovery silencer module, only for rear air recovery.
PRT1: Wall/recessed (up to 50 m) remote control panel.
PRT2: Wall/recessed (up to 200 m) remote control panel.
PSFT: Differential pressure switch signalling dirty filters.
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
RF: Smoke detector.
RFC: Smoke detector and damper management.
RS: Serial card BMS RS485.
SCM: Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).
SCMRM: Modulating Servo-control with spring return.
SCO2: Probe CO2 (not available on MB1 fittings).
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
UP: Manufacturer of immersed electrodes supplied and steam ramp installed.
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

MB1

Size		17	18	19	20	21	22	23
Configuration: MB1								
Cooling performances (1)								
Cooling capacity	kW	151,90	170,10	191,70	213,30	231,70	246,10	289,10
Sensible cooling capacity	kW	114,30	125,40	136,10	151,60	164,70	178,50	202,30
Compressors absorbed power	kW	32,70	39,20	45,30	54,00	60,70	69,00	68,90
EER compressors		4,65	4,34	4,23	3,95	3,82	3,57	4,20
Heating performances (2)								
Heating capacity	kW	152,70	170,80	192,80	216,20	230,80	245,50	296,30
Compressors absorbed power	kW	28,20	33,90	39,20	43,90	46,30	51,20	58,60
Compressor COP		5,41	5,04	4,92	4,92	4,98	4,79	5,06

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB2

Size		17	18	19	20	21	22	23
Configuration: MB2								
Cooling performances (1)								
Cooling capacity	kW	160,20	179,40	201,80	224,60	243,90	258,90	304,50
Sensible cooling capacity	kW	120,90	132,60	143,20	159,70	173,50	188,30	212,90
Compressors absorbed power	kW	33,10	39,50	45,60	54,60	61,60	69,80	69,70
EER compressors		4,84	4,54	4,43	4,11	3,96	3,71	4,37
Heating performances (2)								
Heating capacity	kW	155,10	174,20	195,50	219,50	234,00	248,60	300,70
Compressors absorbed power	kW	25,80	31,10	35,70	40,40	42,50	47,00	54,10
Compressor COP		6,01	5,60	5,48	5,43	5,51	5,29	5,56

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB3

Size		17	18	19	20	21	22	23
Configuration: MB3								
Cooling performances (1)								
Cooling capacity	kW	161,30	181,10	203,70	226,90	246,70	262,10	307,20
Sensible cooling capacity	kW	121,30	133,30	143,80	160,50	174,50	189,20	213,90
Compressors absorbed power	kW	32,50	38,80	44,50	53,20	59,90	67,70	68,30
EER compressors		4,96	4,67	4,58	4,27	4,12	3,87	4,50
Heating performances (2)								
Heating capacity	kW	159,10	179,00	202,30	227,70	243,60	259,90	310,90
Compressors absorbed power	kW	26,20	31,40	36,30	41,00	43,30	47,90	55,00
Compressor COP		6,07	5,70	5,57	5,55	5,63	5,43	5,65

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB4

Size		17	18	19	20	21	22	23
Configuration: MB4								
Cooling performances (1)								
Cooling capacity	kW	161,30	181,10	203,70	226,90	246,70	262,10	307,20
Sensible cooling capacity	kW	121,30	133,30	143,80	160,50	174,50	189,20	213,90
Compressors absorbed power	kW	32,50	38,80	44,50	53,20	59,90	67,70	68,30
EER compressors		4,96	4,67	4,58	4,27	4,12	3,87	4,50
Heating performances (2)								
Heating capacity	kW	159,10	179,00	202,30	227,70	243,60	259,90	310,90
Compressors absorbed power	kW	26,20	31,40	36,30	41,00	43,30	47,90	55,00
Compressor COP		6,07	5,70	5,57	5,55	5,63	5,43	5,65

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			17	18	19	20	21	22	23
Energy index									
SEER	H	W/W	4,01	3,94	4,18	3,92	4,15	3,94	3,85
ηsc	H	%	157.6%	154.6%	164.3%	153.8%	162.9%	154.5%	150.9%
Pdesignh	H	kW	89	98	109	123	130	141	168
SCOP	H	W/W	3,47	3,31	3,45	3,36	3,49	3,43	3,26
ηsh	H	%	135.7%	129.4%	134.8%	131.5%	136.4%	134.2%	127.3%

GENERAL TECHNICAL DATA

Size			17	18	19	20	21	22	23
Power supply									
Power supply	H		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor									
Type	H	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	H	no.	4	4	4	4	4	4	4
Circuits	H	no.	2	2	2	2	2	2	2
Refrigerant	H	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Partialisation step	H	no.	6	6	6	6	6	6	6

FANS

External fans

Size			17	18	19	20	21	22	23
Configuration: MB1, MB2, MB3, MB4									
External fans									
Type	H	type	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC
Number	H	no.	4	4	4	4	4	4	4

Internal fans

Size			17	18	19	20	21	22	23
Configuration: MB1, MB2, MB3, MB4									
Internal fans									
Nominal air flow rate	H	m^3/h	26000	29000	33000	37000	40000	44000	48000
Minimum air flow rate	H	m^3/h	18200	20300	23100	25900	28000	30800	33600
Maximum air flow rate	H	m^3/h	36000	36000	44000	44000	53000	53000	53000

Internal recovery fans

Size			17	18	19	20	21	22	23
Configuration: MB3									
Recovery									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	3	3	3	3	3	3	3

Expulsion fan

Size			17	18	19	20	21	22	23
Configuration: MB4									
Exhaust									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	2	2	2	2	2	2	2

Internal flow fans

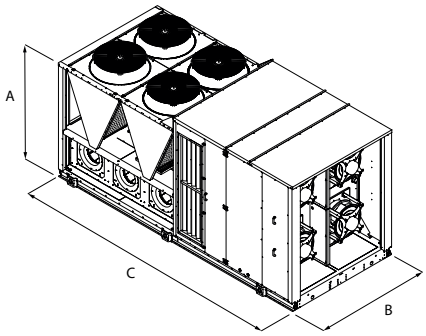
Size			17	18	19	20	21	22	23
Configuration: MB1									
Delivery									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	2	2	3	3	3	4	4
Maximum useful head (1)	H	Pa	700	475	520	580	520	690	550
High static pressure (EN14511) (1)	H	Pa	350	350	350	350	350	350	350

(1) At the nominal/maximum flow rate with a new, clean air filter.

Size			17	18	19	20	21	22	23
Configuration: MB2, MB3, MB4									
Delivery									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	2	2	3	3	3	4	4
Maximum useful head (1)	H	Pa	519	341	330	470	460	636	467
High static pressure (EN14511) (1)	H	Pa	350	350	350	350	350	350	350

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size			17	18	19	20	21	22	23
Dimensions and weights									
A	H	mm	2430	2430	2430	2430	2430	2430	2430
B	H	mm	2200	2200	2200	2200	2200	2200	2200
C	H	mm	5210	5210	5210	5210	7750	7750	7750

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RTY

Roof-Top for high-crowding applications

Cooling capacity 30.2 ÷ 133.6 kW
Heating capacity 29.3 ÷ 137.9 kW

- For high-crowding applications
- Thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free cooling option



DESCRIPTION

Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration.
The RTY 01-10 units are designed for highly crowded contexts such as cinemas, conference halls, restaurants and discos, as they work with 80% outside and exhaust air.

CONFIGURATIONS

MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.
The double flow and recovery ventilating cross-section allows for total free-cooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.
Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

FEATURES

— 1 refrigerant circuit;
— Scroll compressors (UNEVEN tandem) with high capacity and low electrical power consumption;
— Finned pack direct expansion internal and external exchangers;
— Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
— Axial fan unit for extremely silent functioning positioned on the condensing section.
— Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and $CO_{2\ probe}$);
— Electronic control of condensation and evaporation as standard, to further extend the operating limits of the unit;

The standard unit permits the use of free cooling mode and the thermodynamic recovery of the energy in the exhaust air, guaranteeing higher output and efficiency levels.

VERSIONS

H Heat pump.

— The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003 (self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
— The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.
State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.
Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

Maximum seasonal efficiency

To improve the efficiency of the cooling circuit, tandem scroll compressors of different power levels are used (UNEVEN compressors on all size taglie except size 08). This distinctive trait, combined with the use of next generation fans, means reduced consumption and enhanced adaptability to system requests (particularly in partial load operation), guaranteeing boosted seasonal efficiency levels.

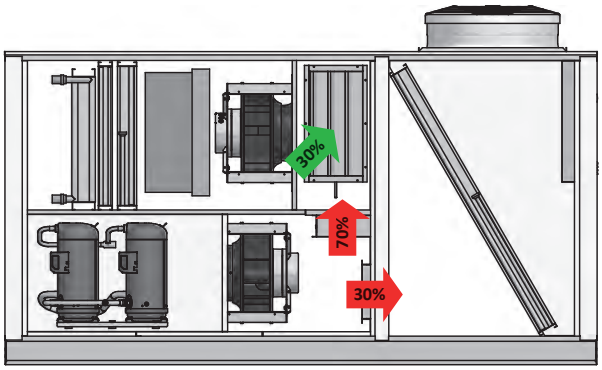
Room air quality

Special attention has been paid to the quality of the air in the room, entrusted to filters that ensure 55% COARSE efficiency as standard. There is also the option of F7, F9 or electronic filters on the fresh air flow.

Active thermodynamic recovery

In the MB3 configuration, the unit with thermodynamic recovery function also takes advantage of the energy contained in the exhaust air, which would otherwise be lost; this ensures better performance and efficiency.
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BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
CF: Flue, only on unit with gas burner module.
DP: Dehumidification control (humidity probe in recovery) and of after-heating (if present).
FT7: F7 efficiency pocket filters positioned on the supply air flow.
FT9: Pocket filters F9 efficiency placed on the flow of supply air.
FTH: Enthalpy free-cooling.
GP: External coil protection grid.
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MSSR: Recovery silencer module, only for rear air recovery.
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PSF2: Differential pressure switch signalling dirty recovery and renewal filters (if any).
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
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SCO2: Probe CO2 (not available on MB1 fittings).
SSV: Supervision systems.
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
U: Steam ramp installed.
UP: Manufacturer of immersed electrodes supplied and steam ramp installed.
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

MB3

Size		01	02	03	04	05	06	07	08	09	10
Configuration: MB3											
Cooling performances (1)											
Cooling capacity	kW	30,20	39,60	48,70	65,40	75,30	84,30	90,90	107,60	121,40	133,60
Sensible cooling capacity	kW	21,20	27,10	32,60	43,10	48,90	55,20	61,10	70,50	80,60	87,40
Compressors absorbed power	kW	5,30	8,40	9,70	13,10	15,20	17,50	18,50	23,30	27,60	32,60
EER compressors		5,70	4,71	5,00	5,00	4,96	4,82	4,92	4,61	4,39	4,09
Heating performances (2)											
Heating capacity	kW	29,30	39,70	48,50	66,50	76,60	85,80	91,40	110,40	123,40	137,90
Compressors absorbed power	kW	4,40	7,00	8,40	12,40	14,20	15,70	15,50	19,20	21,80	25,50
Compressor COP		6,67	5,68	5,77	5,38	5,39	5,47	5,89	5,73	5,66	5,41

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			01	02	03	04	05	06	07	08	09	10
Energy index												
SEER	H	W/W	4,78	4,68	4,19	3,46	3,37	3,40	3,27	3,46	3,45	3,24
ηsc	H	%	188,40	184,40	164,60	135,50	131,80	133,00	127,70	135,60	134,90	126,70
Pdesignh	H	kW	26	35	44	62	70	78	82	99	110	122
SCOP	H	W/W	4,16	3,97	3,55	2,97	2,95	3,01	2,99	3,15	3,10	2,99
ηsh	H	%	163,60	155,70	139,00	115,70	115,10	117,40	116,40	122,90	121,20	116,60

GENERAL TECHNICAL DATA

Size			01	02	03	04	05	06	07	08	09	10
Configuration: MB3												
Power supply												
Power supply	H						400V 3 ~ 50Hz					
Compressor												
Type	H	type					Scroll					
Number	H	no.	2	2	2	2	2	2	2	2	2	2
Circuits	H	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	H	type					R410A					
Partialisation step	H	no.	3	3	3	3	3	3	3	3	3	3

FANS

External fans

Size		01	02	03	04	05	06	07	08	09	10
Configuration: MB3											
External fans											
Type	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	no.	1	1	2	2	2	2	2	2	2	2

Internal fans

Size		01	02	03	04	05	06	07	08	09	10
Configuration: MB3											
Internal fans											
Nominal air flow rate	m^3/h	3500	4500	5500	7000	8000	9500	11500	14000	15000	16500
Minimum air flow rate	m^3/h	2450	3150	3850	4900	5600	6650	8050	9800	10500	11550
Maximum air flow rate	m^3/h	3500	4500	5500	7000	8000	9500	11500	14000	15000	16500

Internal recovery fans

Size			01	02	03	04	05	06	07	08	09	10
Configuration: MB3												
Recovery												
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	1	1	1	1	2	2	2

Expulsion fan

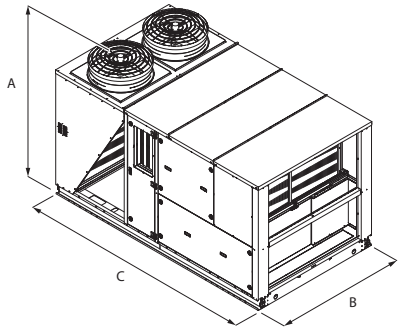
Size			01	02	03	04	05	06	07	08	09	10
Configuration: MB3												
Exhaust												
Type	H	type	-	-	-	-	-	-	-	-	-	-
Number	H	no.	-	-	-	-	-	-	-	-	-	-

Internal flow fans

Size		01	02	03	04	05	06	07	08	09	10
Configuration: MB3											
Delivery											
Type	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	no.	1	1	1	1	1	1	1	1	1	2
Maximum useful head (1)	Pa	150	150	200	200	200	250	250	250	300	300
High static pressure (EN14511) (1)	Pa	-	-	-	-	-	-	-	-	-	-

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size		01	02	03	04	05	06	07	08	09	10
Configuration: MB3											
Dimensions and weights											
A	mm	2061	2061	2061	2373	2373	2373	2373	2373	2373	2373
B	mm	1900	1900	1900	2100	2100	2100	2100	2100	2100	2100
C	mm	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400

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ROOM AIR CONDITIONERS

A complete range of units designed to meet all climate control requirements:
Aermec the answer to air conditioning.
A vast choice not only in terms of models but also alternatives and possibilities: state-of-the-art technology such as the inverter that optimises performance at all times according to the set temperature to achieve maximum energy saving; versatile installation options to solve all problems of space.
Quality design and materials, cooling and heating power suited to cover all requirements both in the residential and commercial sector, exclusive elegant design complete the range features, ranking Aermec among the leaders on the market.

ROOM AIR CONDITIONERS

			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Monobloc					
	FK	Monobloc window	-	2,7-3,6	-	912
	CMP (COMPACT)	Monobloc without outdoor unit	-	2,35	2,36	915
new	**PST**	Portable air conditioner	-	3,5	2,9	918
	Monosplit					
	SPG	Monosplit	-	2,5-6,2	2,8-6,5	921
	SGE	Monosplit	-	2,8-5,9	2,9-6,0	926
	SCG_1	Monosplit	-	7,2-12,5	7,9-14,5	930
	CKG	Monosplit	-	2,7-6,6	2,9-6,8	934
	LPG	Monosplit	-	3,5-16,0	4,0-17,0	940
	MVAS	Monosplit high head duct	-	22,4-28,0	24,0-30,0	949
	Multisplit					
	MPG	Multisplit	-	4,1-12,1	4,4-13,0	952
	MGE	Multisplit		4,1-7,9	4,4-8,2	969
new	**MGEHW**	Multisplit	-	7,91	8,21	979

FK

Monobloc window

Cooling capacity 2,7 ÷ 3,6 kW

- **New R32 ecological refrigerant gas.**
- **Flush-mounting installation on the window.**
- **Plug & Play.**



A

DESCRIPTION

The packed air-conditioners of the FK range, for flush-mounting window installation, are ideal for use in commercial contexts such as shops, hotels, offices, laboratories and prefabricated garages.

FEATURES





Inner and outer side

— Remote control and holder standard supply with each unit.
— Fans with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Clean filter signal function.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— Inner side 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Sleep** night time function well-being program.
— DC inverter rotary compressor.

General features

— New R32 ecological refrigerant gas with low GWP.
— Monobloc **Plug & Play** unit equipped with power supply with schuko plug.
— Operating mode: cooling, dehumidification and fan only.
— Condensate discharge tub included.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.

INSTALLATION TYPE



PERFORMANCE SPECIFICATIONS

		FK260	FK360
Nominal cooling performances			
Cooling capacity (1)	kW	2,70	3,65
Cooling input power (1)	kW	0,78	1,03
EER (2)	W/W	3,45	3,54
Moisture removed	l/h	1,0	1,6
Maximum cooling performances			
Cooling input current	A	3,5	4,6
Seasonal efficiency			
SEER	W/W	5,20	5,40
Efficiency energy class (3)		A	A
Pdesignc	kW	2,7	3,7
Annual power consumption	kWh/annum	182	240

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

GENERAL DATA

		FK260	FK360
Electric data			
Rated power input (1)	kW	1,10	1,30
Rated current input (1)	A	5,5	6,5
Power supply			
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

INNER SIDE

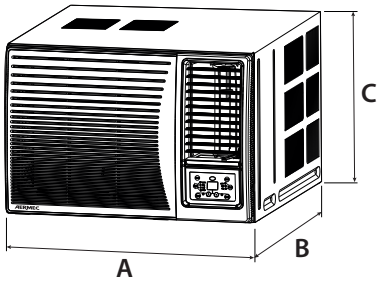
		FK260	FK360
Inner side			
Type of fan	Type	Inverter centrifugal	Inverter centrifugal
Inner side air flow rate			
Maximum	m^3/h	400	480
Average	m^3/h	360	430
Minimum	m^3/h	320	380
Inner side sound pressure			
Maximum	dB(A)	50,0	50,0
Average	dB(A)	48,0	48,0
Minimum	dB(A)	46,0	46,0
Inner side sound power			
Maximum	dB(A)	59,0	59,0
Average	dB(A)	57,0	57,0
Minimum	dB(A)	55,0	55,0

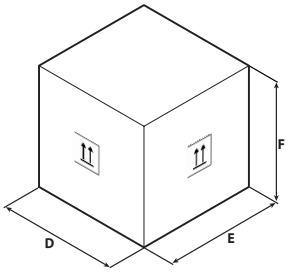
OUTER SIDE

		FK260	FK360
Outer side			
Type of fan	Type	Inverter axial	Inverter axial
Outer side air flow rate			
Maximum	m^3/h	800	1200
Outer side sound power			
Maximum	dB(A)	65,0	65,0
Average	dB(A)	63,0	63,0
Minimum	dB(A)	61,0	61,0
Outer side sound pressure			
Maximum	dB(A)	56,0	56,0
Average	dB(A)	54,0	54,0
Minimum	dB(A)	52,0	52,0
Compressor			
Type	type	Inverter rotary	Inverter rotary
Compressor			
Refrigerant	type	R32	R32
Refrigerant charge (1)	kg	0,5	0,6
Compressor			
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,34	0,43
Outer side			
Protection rating		IPX4	IPX4

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

DIMENSIONS AND WEIGHTS





Carton Box Example

		FK260	FK360
Dimensions and weights			
A	mm	560	660
B	mm	710	700
C	mm	375	428
D	mm	623	739
E	mm	806	793
F	mm	425	505
Net weight	kg	43,0	50,0
Weight for transport	kg	47,0	54,0

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CMP

Monobloc without outdoor unit

Cooling capacity 2,35 kW
Heating capacity 2,36 kW

- **Two holes, no outdoor units.**
- **Modern design to blend with all furnishing styles.**
- **Extremely thin, with a depth of just 165 mm.**



DESCRIPTION

The air-conditioners of the CMP range are of the single-block type and are ideal for heating, cooling, dehumidification or ventilation only, whether in the home or the office.
The absence of an outdoor unit permits installation in all those cases where architectural restraints prevent the positioning of a split air-conditioner.
The unit boasts a compressor and a fan with inverter technology.

FEATURES

Unit

Indoor unit designed for installation on internal walls.
— No need for an outdoor unit just make two 162 mm holes in the outer wall so the air-conditioner can exchange heat with the external environment.
— Folding grilles included.
— On-board control panel with display and soft-touch keys.
— Included remote control.
Cooling operation with outside temperatures up to 35 °C.
Heating operation with outdoor temperatures down to 7 °C.







Folding grilles

With two folding grilles which, activated by the inlet and outlet air, open when the machine is working and close when the machine is switched off. In this way they guarantee enhanced indoor comfort, less dust, noise and pollution, reduced maintenance and are even less visible from the outside.

Control panel

The on-board control panel with display and soft-touch keys allows you to set the required temperature set-point easily and accurately.

The "heating" function is deactivated by a simple intervention on the control panel: the device then works in "cooling only" mode, without requiring the condensate discharge tube.
The air delivery fin is easily orientated by means of the relative key.

Remote control

Handy remote control that's not too bulky.
Fitted with a practical magnet so it can be fixed to the unit.
All the control panel functions are available via the remote control too.

GENERAL FEATURES

— Condensate drip tray constantly pre-heated in the winter during heat pump operation, without any risk of the water freezing.
— Operating mode: cooling, dehumidification and fan only.
— Particularly quiet operation.
— Microproccessor control.

ACCESSORIES AS STANDARD

— Condensate drip.
— Two folding grilles.
— Remote control.

PERFORMANCE SPECIFICATIONS

		CMP23I
Nominal cooling performances		
Cooling capacity (1)	kW	2,35
Cooling input power (1)	kW	0,73
EER (2)	W/W	3,22
Maximum cooling performances		
Cooling capacity	kW	3,10
Nominal cooling performances		
Moisture removed	l/h	1,1
Seasonal efficiency		
Efficiency energy class (3)		A+
Annual power consumption	kWh/annum	425
Nominal heating performances		
Heating capacity (4)	kW	2,36
Heating input power (4)	kW	0,72
COP (2)	W/W	3,28
Maximum heating performances		
Heating capacity	kW	3,05
Seasonal efficiency (temperate climate)		
Efficiency energy class (3)		A

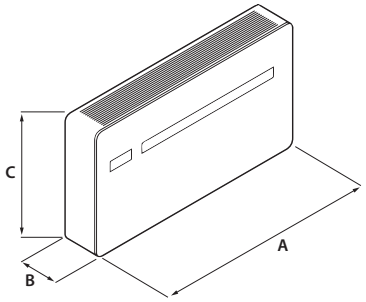
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

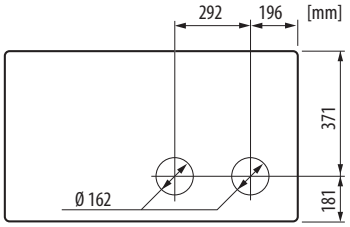
GENERAL DATA

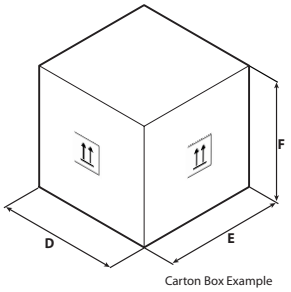
		CMP23I
Fan		
Type	type	Inverter centrifugal
Number	no.	1
Inner side air flow rate		
Maximum	m^3/h	400
Average	m^3/h	320
Minimum	m^3/h	270
Outer side air flow rate		
Maximum	m^3/h	480
Average	m^3/h	390
Minimum	m^3/h	340
Compressor		
Number	no.	1
Refrigerant	type	R410A
Refrigerant charge (1)	kg	0,6
Potential global heating	GWP	2088kgCO_2eq
Sound data calculated in cooling mode (2)		
Sound power level	dB(A)	58,0
Sound pressure level (1,5 m)	dB(A)	46,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS AND WEIGHTS







Carton Box Example

		CMP23I
Dimensions and weights		
A	mm	1030
B	mm	170
C	mm	555
D	mm	1100
E	mm	260
F	mm	660
Net weight	kg	48,0
Weight for transport	kg	49,0

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PST

Portable air conditioner

Cooling capacity 3,5 kW
Heating capacity 2,9 kW

- **New R290 natural refrigerant gas.**
- **Reversible heat pump.**
- **Standard Wi-Fi control.**
- **Compact, manoeuvrable and silent.**
- **Modern design to blend with all furnishing styles.**
- **Special coil with fin golden coating.**



DESCRIPTION

PST portable air conditioner, ideal for heating, cooling, dehumidification or ventilation only both at home and at the office.
Adapts to any kind of decor, thanks to its compact and elegant design; it is mounted on wheels and can be used in multiple rooms, and is easily transportable and installable.
Equipped with a specific tank to collect the moisture removed from the environment during cooling, heating or dehumidification.
The on-board control panel with display, allows to easily and precisely set the desired temperature set-points.

FEATURES





Operation

The cooled, heated and/or dehumidified air exits the front grille and directed vertically by movable louvers.
The air to be treated is drawn through filters from the rear.
The exhausted air is expelled through a hose that is attached by means of a special flange on the rear of the portable air conditioner unit.
The air filters are easy to remove and wash.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



GENERAL FEATURES

Remote control standard supply with each unit.
New R290 natural refrigerant gas.
Operating mode: cooling, heating, dehumidification, automatic and fan only.
Regenerable air filter easy to remove and clean.
Particularly quiet operation.
Timer for programming switch-off and switch-on.
Indoor unit front panel with LED display and indicator lights.
3-speed fan, to meet every possible need.
Auto function for a continuous speed variation.
Sleep night time function well-being program.
followMe function for activating the ambient temperature probe inside the remote control, for improved comfort.
Auto-restart function.

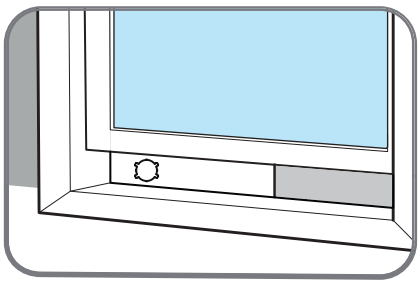
ACCESSORIES AS STANDARD

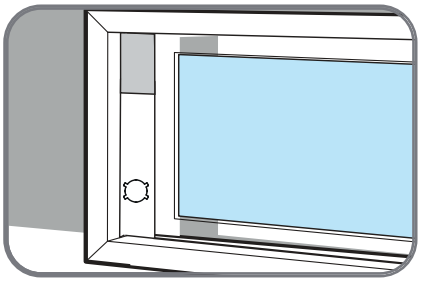
— Air expulsion hose with special joints and collectors.
— Condensate discharge hose, discharge tap and relative fixing accessories.
— Window kit and protection mesh to connect the hot air expulsion hose.
— Cap for the wall and connection for the hot air expulsion hose.
— Remote control.

FLEXIBLE PIPE

		PST350
Flexible pipe		
Minimum length	mm	330
Maximum length	mm	1450
Size (out)	Ø	155

WINDOW KIT





PERFORMANCE SPECIFICATIONS

		PST350
Nominal cooling performances		
Cooling capacity	kW	3,50
Nominal heating performances		
Heating capacity	kW	2,90

Rating data Cooling (EN 14511 e EN 14825) Ambient air temperature 35°C d.b. / 24°C w.b. - Max speed
Rating data Heating (EN 14511 e EN 14825) Ambient air temperature 20°C d.b./ 12°C w.b. - Max speed

GENERAL DATA

		PST350
Electric data		
Rated power input	W	1450
Rated current input	A	8,0
Power supply		
Power supply		220-240V ~ 50Hz
Outer side		
Condensate discharge diameter	mm	13,5
Power supply cable		
Type of power supply cable	Type	3G1,5 mm^2/L= 2,3 m/Schuko plug

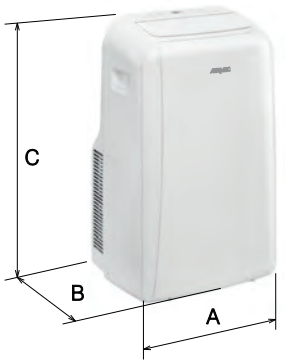
The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

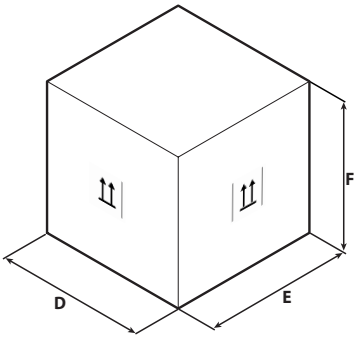
UNIT DATA

		PST350
Compressor		
Type	type	Rotary
Fan		
Type	type	Centrifugal
Air flow rate		
Minimum	m^3/h	355
Average	m^3/h	370
Maximum	m^3/h	420
Sound data		
Sound power level	dB(A)	64,0

Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

DIMENSIONS AND WEIGHTS





Carton Box Example

		PST350
Dimensions and weights		
A	mm	467
B	mm	397
C	mm	765
D	mm	512
E	mm	442
F	mm	880
Net weight	kg	33,2
Weight for transport	kg	37,0

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SPG

Monosplit

Cooling capacity 2,5 ÷ 6,2 kW
Heating capacity 2,8 ÷ 6,5 kW

- **New R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **Modern design to blend with all furnishing styles.**
- **Special coil with fin blue coating.**
- **Indoor units compatible with multisplit systems.**



DESCRIPTION

The monosplit air conditioners of the SPG range are combined with SPG_W (Wall) indoor units for wall installation.
Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series SPG:

Indoor units	SPG_W				
	SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Monosplit outdoor units SPG		•	•	•	•
Multisplit utdoor units MPG	•	•	•	•	•

The external unit boasts a compressor and a fan with inverter technology.

FEATURES





Indoor unit

Wall indoor unit designed to be installed on indoor walls.
— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Compressor and fan with DC inverter technology.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *

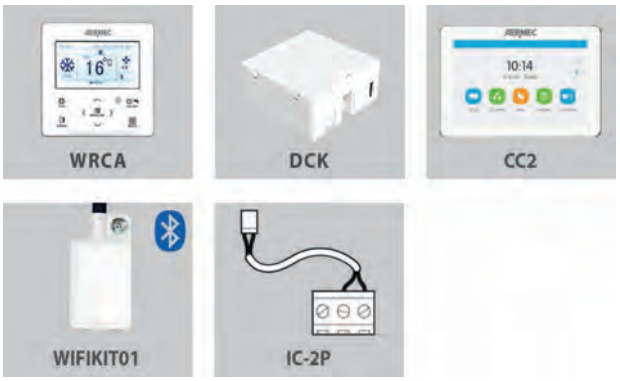
WRCA: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.

*** The CC2 centralised control can manage up to 36 SPG system.**

In order to use accessory CC2, for each indoor unit, the WRCA wired panel (accessory) must be installed, with the IC-2P adapter accessory.

DCK: Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.

WIFIKIT01: Plug & Play module to be installed in the indoor unit for Wi-Fi control, equipped with Bluetooth® connection to ensure a better connection with smart devices. (Cable length 250 mm)



DTG1: Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

Accessories compatibility

SPG_W

Accessory	SPG500W	SPG700W
CC2 (1)	•	•
WRCA (1)	•	•

(1) Auto-restart function.

Accessory	SPG500W	SPG700W
IC-2P	•	•

Accessory	SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
DCK				•	•
WIFIKIT01	•	•	•	•	•

PERFORMANCE SPECIFICATIONS

Indoor unit		SPG250W	SPG350W	SPG500W	SPG700W
Outdoor unit		**SPG250**	**SPG350**	**SPG500**	**SPG700**
Indoor unit quantity		**1**	**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**	**1**
Nominal cooling performances					
Cooling capacity (1)	kW	2,50	3,20	4,60	6,20
Cooling input power (1)	kW	0,72	0,99	1,36	1,77
EER (2)	W/W	3,47	3,23	3,39	3,50
Moisture removed	l/h	0,6	1,4	1,8	1,8
Minimum cooling performances					
Cooling capacity	kW	0,50	0,90	1,00	1,60
Cooling input power	kW	0,15	0,22	0,42	0,45
Maximum cooling performances					
Cooling capacity	kW	3,25	3,60	5,30	6,90
Cooling input power	kW	1,30	1,30	1,80	2,20
Cooling input current	A	3,2	4,4	5,9	7,9
Seasonal efficiency					
Annual power consumption	kWh/annum	135	184	251	319
SEER	W/W	6,50	6,10	6,40	6,80
Efficiency energy class (3)		A++	A++	A++	A++
Nominal heating performances					
Heating capacity (4)	kW	2,80	3,40	5,20	6,50
Heating input power (4)	kW	0,75	0,91	1,34	1,65
COP (2)	W/W	3,73	3,71	3,88	3,95
Minimum heating performances					
Heating capacity	kW	0,50	0,90	1,00	1,30
Heating input power	kW	0,14	0,22	0,42	0,45
Maximum heating performances					
Heating capacity	kW	3,50	4,00	5,65	7,91
Heating input power	kW	1,50	1,50	1,90	2,20
Heating input current	A	3,2	4,0	5,8	7,3
Seasonal efficiency (temperate climate)					
Annual power consumption	kWh/annum	875	945	1295	1645
Efficiency energy class (3)		A+	A+	A+	A+
SCOP	W/W	4,00	4,00	4,00	4,00

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT DATA

		SPG250W	SPG350W	SPG500W	SPG700W
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Air flow rate					
Turbo	m^3/h	500	590	850	1100
Maximum	m^3/h	470	520	800	950
Average	m^3/h	390	400	700	750
Minimum	m^3/h	270	320	600	650
Sound power (1)					
Turbo	dB(A)	55,0	56,0	54,0	61,0
Maximum	dB(A)	48,0	49,0	52,0	58,0
Average	dB(A)	44,0	45,0	48,0	52,0
Minimum	dB(A)	34,0	38,0	44,0	49,0
Sound pressure (1 m) (2)					
Turbo	dB(A)	38,0	41,0	44,0	47,0
Maximum	dB(A)	36,0	37,0	42,0	44,0
Average	dB(A)	32,0	33,0	38,0	38,0
Minimum	dB(A)	22,0	26,0	34,0	35,0
Indoor unit					
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

OUTDOOR UNIT DATA

		SPG250	SPG350	SPG500	SPG700
Outdoor unit					
Type of fan	Type		Inverter axial		
Air flow rate					
Maximum	m^3/h	1950	1950	1950	2800
Sound power (1)					
Maximum	dB(A)	62,0	64,0	63,0	67,0
Sound pressure (1 m) (2)					
Maximum	dB(A)	51,0	51,0	55,0	58,0
Compressor					
Type	type		Inverter rotary		
Refrigerant	type		R32		
Refrigerant charge	kg	0,50	0,55	0,75	1,30
Potential global heating	GWP		$675kgCO_2eq$		
Equivalent CO_2	t	0,34	0,37	0,51	0,88
Outdoor unit					
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0

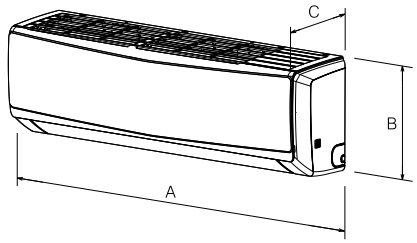
(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

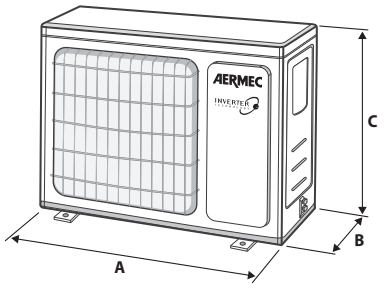
GENERAL DATA

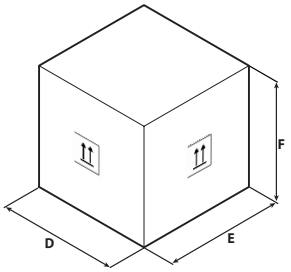
Indoor unit		**SPG250W**	**SPG350W**	**SPG500W**	**SPG700W**
Outdoor unit		**SPG250**	**SPG350**	**SPG500**	**SPG700**
Indoor unit quantity		**1**	**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**	**1**
Electric data					
Rated power input (1)	kW	1,50	1,50	1,90	2,20
Rated current input (1)	A	7,5	7,5	9,0	10,0
Refrigerant lines					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
Maximum refrigerant tube length	m	15	20	25	25
Maximum refrigerant line level difference	m	10,0	10,0	10,0	10,0
Maximum length of refrigerant lines without addition of refrigerant	m	5	5	5	5
Refrigerant to be added	g/m	16	16	16	16
Power supply					
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
For lines longer than 15m it is necessary to add 5ml of refrigerant oil for every additional 5m of pipe.

DIMENSIONS AND WEIGHTS







Carton Box Example

		SPG250W	SPG350W	SPG500W	SPG700W
Indoor unit					
A	mm	696	770	972	1081
B	mm	251	251	300	325
C	mm	190	190	225	248
D	mm	747	822	1022	1137
E	mm	324	324	374	407
F	mm	262	262	299	334
Net weight	kg	7,5	8,5	13,5	16,5
Weight for transport	kg	9,0	10,0	16,0	19,5

		SPG250	SPG350	SPG500	SPG700
Outdoor unit					
A	mm	732	732	732	873
B	mm	330	330	330	376
C	mm	550	550	555	555
D	mm	792	792	794	951
E	mm	393	393	376	431
F	mm	615	615	615	620
Net weight	kg	25,0	25,0	27,0	37,0
Weight for transport	kg	28,0	28,0	29,0	40,0

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SGE

Monosplit

Cooling capacity 2,8 ÷ 5,9 kW
Heating capacity 2,9 ÷ 6,0 kW

- **New R32 ecological refrigerant gas.**
- **Air Purifiers (Cold Plasma).**
- **Possibility of Wi-Fi control.**
- **Innovative design sleek curved lines.**
- **Special coil with fin golden coating.**



DESCRIPTION

The monosplit air conditioners of the SGE range are combined with SGE_W (Wall) indoor units for wall installation.
The external unit boasts a compressor with inverter technology.

FEATURES

Innovative design

SGE has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.





Indoor unit

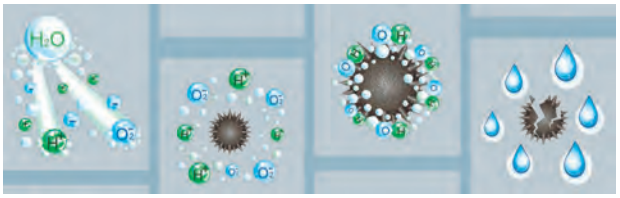
Wall indoor unit designed to be installed on indoor walls.
— Remote control standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
Compressor and fan with DC inverter technology.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Nethome Plus app

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Easy installation and maintenance.

ACCESSORIES

WIFIKEY: Plug & Play module to be installed in the indoor unit for Wi-Fi control.

Accessories compatibility

Accessory	SGE250W	SGE350W	SGE500W	SGE700W
WIFIKEY	•	•	•	•

PERFORMANCE SPECIFICATIONS

Indoor unit		SGE250W	SGE350W	SGE500W	SGE700W
Outdoor unit		**SGE250**	**SGE350**	**SGE500**	**SGE700**
Indoor unit quantity		**1**	**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**	**1**
Nominal cooling performances					
Cooling capacity (1)	kW	2,77	3,46	5,27	5,86
Cooling input power (1)	kW	0,77	1,06	1,55	1,81
EER (2)	W/W	3,60	3,25	3,40	3,24
Moisture removed	l/h	1,0	1,2	1,8	2,7
Minimum cooling performances					
Cooling capacity	kW	0,91	1,11	3,39	2,08
Cooling input power	kW	0,10	0,13	0,56	0,42
Maximum cooling performances					
Cooling capacity	kW	3,39	4,16	5,83	7,91
Cooling input power	kW	1,24	1,58	2,05	3,15
Cooling input current	A	3,3	4,6	6,7	7,9
Seasonal efficiency					
SEER	W/W	6,30	6,40	7,40	6,80
Efficiency energy class (3)		A++	A++	A++	A++
Annual power consumption	kWh/annum	156	190	247	300
Nominal heating performances					
Heating capacity (4)	kW	2,93	3,57	4,97	6,00
Heating input power (4)	kW	0,73	0,96	1,29	1,61
COP (2)	W/W	4,00	3,71	3,83	3,73
Minimum heating performances					
Heating capacity	kW	0,82	1,08	3,10	1,61
Heating input power	kW	0,12	0,10	0,78	0,30
Maximum heating performances					
Heating capacity	kW	3,37	4,22	5,85	7,91
Heating input power	kW	1,20	1,68	2,00	2,75
Heating input current	A	3,2	4,2	5,6	7,0
Seasonal efficiency (temperate climate)					
SCOP	W/W	4,00	4,00	4,00	4,00
Efficiency energy class (3)		A+	A+	A+	A+
Annual power consumption	kWh/annum	910	945	1435	1818
Seasonal efficiency (hot climate)					
SCOP	W/W	5,10	5,10	5,10	5,00
Efficiency energy class (3)		A+++	A+++	A+++	A++
Annual power consumption	kWh/annum	714	686	1260	1705

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		SGE250W	SGE350W	SGE500W	SGE700W
Indoor unit					
Type of fan	Type		Tangential		
Air flow rate					
Maximum	m^3/h	466	540	840	980
Average	m^3/h	360	430	680	817
Minimum	m^3/h	325	314	540	662
Sound power (1)					
Maximum	dB(A)	54,0	55,0	56,0	59,0
Sound pressure (1 m) (2)					
Maximum	dB(A)	38,5	40,5	42,5	45,0
Average	dB(A)	32,0	34,5	36,0	40,5
Minimum	dB(A)	25,0	25,0	26,0	36,0

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

OUTDOOR UNIT

		SGE250	SGE350	SGE500	SGE700
Outdoor unit					
Type of fan	Type	Axial	Axial	Axial	Axial
Air flow rate					
Maximum	m^3/h	1750	1800	2100	3500
Sound power (1)					
Maximum	dB(A)	62,0	63,0	63,0	67,0
Sound pressure (1 m) (2)					
Maximum	dB(A)	55,5	56,0	56,0	59,0
Compressor					
Type	type	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary
Refrigerant	type	R32	R32	R32	R32
Refrigerant charge	kg	0,55	0,55	1,08	1,42
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,37	0,37	0,73	0,96

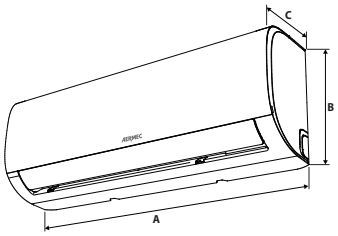
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(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

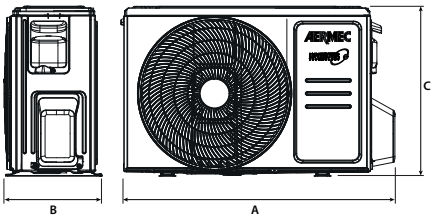
GENERAL DATA

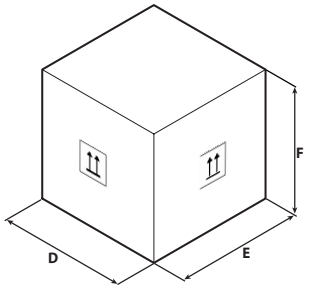
Indoor unit		**SGE250W**	**SGE350W**	**SGE500W**	**SGE700W**
Outdoor unit		**SGE250**	**SGE350**	**SGE500**	**SGE700**
Indoor unit quantity		**1**	**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**	**1**
Electric data					
Rated power input (1)	kW	2,20	2,20	2,50	3,50
Rated current input (1)	A	10,0	10,0	13,0	15,5
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4″)	6,35 (1/4″)	6,35 (1/4″)	9,52 (3/8″)
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8″)	9,52 (3/8″)	12,7 (1/2″)	15,9 (5/8″)
Maximum refrigerant tube length	m	25	25	30	50
Maximum refrigerant line level difference	m	10,0	10,0	20,0	25,0
Refrigerant to be added	g/m	12	12	12	24
Power supply					
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		SGE250W	SGE350W	SGE500W	SGE700W
Indoor unit					
A	mm	805	805	957	1040
B	mm	285	285	302	327
C	mm	194	194	213	220
D	mm	870	870	1035	1120
E	mm	270	270	295	405
F	mm	365	365	385	315
Net weight	kg	7,6	7,6	10,0	12,3
Weight for transport	kg	9,7	9,8	13,0	15,8
		SGE250	**SGE350**	**SGE500**	**SGE700**
Outdoor unit					
A	mm	720	720	805	890
B	mm	270	270	330	342
C	mm	495	495	554	673
D	mm	835	835	915	995
E	mm	300	300	370	398
F	mm	540	540	615	740
Net weight	kg	23,2	23,2	32,7	42,9
Weight for transport	kg	25,0	25,0	35,4	45,9

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SCG_1

Monosplit

Cooling capacity 7,2 kW ÷ 12,5 kW
Heating capacity 7,9 kW ÷ 14,5 kW

- **New R32 ecological refrigerant gas.**
- **Standard Wi-Fi module.**
- **Modern design to blend with all furnishing styles.**
- **Easy installation and maintenance.**
- **Ideal for installations in the service sector: hotels, restaurants, offices.**



DESCRIPTION

The monosplit air conditioners of the SCG_1 range are combined with SCG_1V (column) indoor units for floor installation.
Thanks to their compact size, ease of installation and modern design, they are suitable for environments such as shops, restaurants, shopping centers, doctor's offices, etc.
The outdoor unit features a compressor with inverter technology and an electronic valve.

FEATURES



Indoor unit

Indoor unit **column** designed to be installed for indoor floor installation.
— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Auto** function for a continuous speed variation.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

ACCESSORIES

DTG1: Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

PERFORMANCE SPECIFICATIONS

Indoor unit		**SCG701V**	**SCG1201V**	**SCG1201VT**
Outdoor unit		**SCG701**	**SCG1201**	**SCG1201T**
Indoor unit quantity		**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**
Nominal cooling performances				
Cooling capacity (1)	kW	7,20	12,30	12,50
Cooling input power	kW	2,05	4,17	3,79
Cooling input current	A	9,0	18,0	5,6
EER (2)	W/W	3,51	2,95	3,30
Moisture removed	l/h	2,5	5,0	5,0
Minimum cooling performances				
Cooling capacity (1)	kW	0,97	1,50	3,10
Cooling input power	kW	0,35	0,55	0,30
Maximum cooling performances				
Cooling capacity (1)	kW	8,40	13,50	14,50
Cooling input power	kW	2,95	5,06	5,70
Seasonal efficiency				
SEER	W/W	6,10	5,70	6,10
Efficiency energy class (3)		A++	-	-
Annual power consumption	kWh/annum	413	-	-
ηsc	%	-	227,00	241,00
Nominal heating performances				
Heating capacity (4)	kW	7,90	12,60	14,50
Heating input power	kW	2,33	3,82	3,86
Heating input current	A	10,5	16,0	5,7
COP (2)	W/W	3,39	3,30	3,76
Minimum heating performances				
Heating capacity (4)	kW	0,64	2,50	3,30
Heating input power	kW	0,39	0,50	0,64
Maximum heating performances				
Heating capacity (4)	kW	8,80	14,00	16,50
Heating input power	kW	3,03	5,06	4,70
Seasonal efficiency (temperate climate)				
SCOP	W/W	3,80	3,70	4,00
Efficiency energy class (3)		A	-	-
Annual power consumption	kWh/annum	2063	-	-
ηsh	%	-	146,00	157,00

(1) Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.

INDOOR UNIT DATA

		SCG701V	SCG1201V	SCG1201VT
Indoor unit				
Type of fan	Type		Centrifugal	
Air flow rate				
Turbo	m^3/h	1250	2000	2400
Maximum	m^3/h	950	1850	2200
Average	m^3/h	850	1700	2000
Minimum	m^3/h	750	1580	1800
Sound power (1)				
Turbo	dB(A)	56,0	64,0	66,0
Maximum	dB(A)	52,0	61,0	64,0
Average	dB(A)	50,0	60,0	63,0
Minimum	dB(A)	46,0	58,0	61,0
Sound pressure (2)				
Turbo	dB(A)	45,0	53,0	56,0
Maximum	dB(A)	41,0	51,0	54,0
Average	dB(A)	39,0	50,0	53,0
Minimum	dB(A)	35,0	48,0	51,0

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

OUTDOOR UNIT DATA

		SCG701	SCG1201	SCG1201T
Outdoor unit				
Type of fan	Type		Axial	
Air flow rate				
Maximum	m^3/h	3600	4000	5200
Sound power (1)				
Maximum	dB(A)	70,0	73,0	74,0
Sound pressure (2)				
Maximum	dB(A)	61,0	63,0	63,0
Compressor				
Type	type		Rotativo Inverter	
Refrigerant	type		R32	
Potential global heating	GWP		675kgCO_2eq	
Refrigerant charge	kg	1,50	2,00	2,80
Equivalent CO_2	t	1,01	1,35	1,89

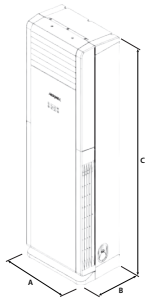
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(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

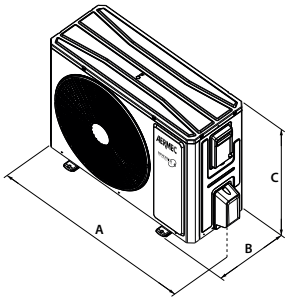
GENERAL DATA

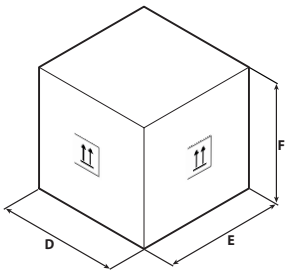
Indoor unit		SCG701V	SCG1201V	SCG1201VT
Outdoor unit		**SCG701**	**SCG1201**	**SCG1201T**
Indoor unit quantity		**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**
Electric data				
Rated power input (1)	kW	3,03	5,06	5,70
Rated current input - cooling	A	14,5	20,0	9,8
Rated current input - heating	A	13,5	22,0	8,1
Refrigerant lines				
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Maximum refrigerant tube length	m	25	30	30
Maximum refrigerant line level difference	m	10,0	20,0	20,0
Maximum length of refrigerant lines without addition of refrigerant	m	5	5	5
Refrigerant to be added	g/m	40	40	40
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		SCG701V	SCG1201V	SCG1201VT
Indoor unit				
A	mm	507	587	587
B	mm	320	394	394
C	mm	1770	1882	1882
D	mm	608	718	718
E	mm	410	485	485
F	mm	1983	2128	2128
Net weight	kg	38,0	53,0	57,0
Weight for transport	kg	47,0	65,0	69,0

		SCG701	SCG1201	SCG1201T
Outdoor unit				
A	mm	958	1000	1020
B	mm	402	427	427
C	mm	660	746	820
D	mm	1032	1080	1093
E	mm	456	483	497
F	mm	737	810	955
Net weight	kg	43,0	55,0	86,0
Weight for transport	kg	47,5	60,0	99,0

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CKG

Universal

Cooling capacity 2,7 ÷ 5,2 kW
Heating capacity 2,9 ÷ 5,3 kW

- **Standard Wi-Fi module.**
- **New R32 ecological refrigerant gas.**
- **Air Purifiers (Cold Plasma).**
- **Low cooling function: cooling operation with outdoor temperatures down to -15 °C.**
- **Low heating function: heating operation with outdoor temperatures down to -22 °C.**



DESCRIPTION

The monosplit air conditioners of the CKG_1 range are combined with CKG_1FS (Console) indoor units with an inverter fan unit, offering twin delivery for optimum air flow control and enhanced environmental comfort.

Universal indoor units:
all indoor units can be combined with both multisplit outdoor units of the series MPG and MLG and monosplit outdoor units of the series CKG_1.

CKG_1FS	CKG261FS	CKG361FS	CKG501FS
Universal indoor units compatible with MPG multisplit system	•	•	•
Universal indoor units compatible with MLG multisplit system	•	•	

The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES





Indoor unit

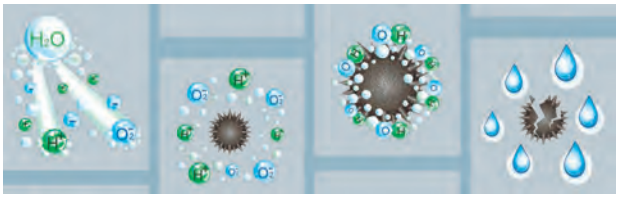
Console indoor unit designed to be installed on indoor floors.
- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Indoor unit front panel with LED display and indicator lights.
- 5-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

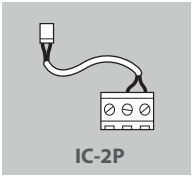
ACCESSORIES

*** The CC2 centralised control can manage up to 36 CKG_1 system.**

In order to use accessory CC2, for each indoor unit, the WRCA wired panel (accessory) must be installed, with the IC-2P adapter accessory.







Single air delivery



Dual air delivery (default)



Intake



ACCESSORIES COMPATIBILITY

Accessory	CKG261FS	CKG361FS	CKG501FS
CC2	•	•	•
WRCA	•	•	•

The accessory CC2 version 01 is compatible with the indoor units of the CKG_1FS series, from version 01.

Accessory	CKG261FS	CKG361FS	CKG501FS
IC-2P	•	•	•

PERFORMANCE SPECIFICATIONS

Indoor unit		CKG261FS	CKG361FS	CKG501FS
Outdoor unit		**CKG261**	**CKG361**	**CKG501**
Indoor unit quantity		**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**
Nominal cooling performances				
Cooling capacity (1)	kW	2,70	3,52	5,20
Cooling input power (1)	kW	0,70	0,93	1,45
EER (2)	W/W	3,86	3,80	3,60
Moisture removed	l/h	0,8	1,2	1,8
Cooling input current	A	5,5	7,0	11,5
Minimum cooling performances				
Cooling capacity	kW	0,50	0,80	1,20
Cooling input power	kW	0,15	0,23	0,10
Maximum cooling performances				
Cooling capacity	kW	3,40	4,40	6,20
Cooling input power	kW	1,10	1,55	2,25
Seasonal efficiency				
SEER	W/W	7,80	7,20	7,20
Efficiency energy class (3)		A++	A++	A++
Annual power consumption	kWh/annum	121	175	253
Nominal heating performances				
Heating capacity (4)	kW	2,90	3,80	5,33
Heating input power (4)	kW	0,73	0,96	1,55
Heating input current	A	6,0	7,5	11,5
COP (2)	W/W	3,97	3,96	3,45
Minimum heating performances				
Heating capacity	kW	0,60	1,05	1,10
Heating input power	kW	0,16	0,18	0,20
Maximum heating performances				
Heating capacity	kW	3,65	4,40	6,20
Heating input power	kW	1,20	1,70	2,40
Seasonal efficiency (temperate climate)				
SCOP	W/W	4,20	4,10	4,00
Efficiency energy class (3)		A+	A+	A+
Annual power consumption	kWh/annum	867	1093	1680

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT DATA

		CKG261FS	CKG361FS	CKG501FS
Indoor unit				
Input power	W	Powered by the outdoor unit	Powered by the outdoor unit	Powered by the outdoor unit
Type of fan	Type	Centrifugal	Centrifugal	Centrifugal
Air flow rate indoor units				
Quiet	m^3/h	250	260	350
Minimum	m^3/h	280	360	430
Average minimum	m^3/h	330	400	470
Average	m^3/h	370	440	520
Average maximum	m^3/h	410	480	600
Maximum	m^3/h	430	520	670
Turbo	m^3/h	500	600	750
Sound power (1)				
Quiet	db(A)	35,0	36,0	43,0
Minimum	dB(A)	38,0	40,0	48,0
Average minimum	dB(A)	41,0	44,0	51,0
Average	dB(A)	44,0	47,0	53,0
Average maximum	dB(A)	46,0	49,0	56,0
Maximum	dB(A)	48,0	51,0	58,0
Turbo	dB(A)	52,0	55,0	60,0
Sound pressure (2)				
Quiet	db(A)	23,0	25,0	32,0
Minimum	dB(A)	26,0	29,0	37,0
Average minimum	dB(A)	29,0	33,0	40,0
Average	dB(A)	32,0	36,0	42,0
Average maximum	dB(A)	34,0	38,0	45,0
Maximum	dB(A)	36,0	40,0	47,0
Turbo	dB(A)	39,0	44,0	49,0
Sound power (1)				
Quiet	db(A)	34,0	36,0	42,0
Minimum	dB(A)	37,0	40,0	47,0
Average minimum	dB(A)	41,0	44,0	49,0
Average	dB(A)	44,0	47,0	52,0
Average maximum	dB(A)	46,0	49,0	54,0
Maximum	dB(A)	48,0	51,0	57,0
Turbo	dB(A)	52,0	55,0	60,0
Sound pressure (2)				
Quiet	db(A)	22,0	25,0	33,0
Minimum	dB(A)	25,0	29,0	38,0
Average minimum	dB(A)	29,0	33,0	40,0
Average	dB(A)	32,0	36,0	43,0
Average maximum	dB(A)	34,0	38,0	45,0
Maximum	dB(A)	36,0	40,0	48,0
Turbo	dB(A)	39,0	44,0	51,0
Indoor unit				
Condensate discharge diameter	mm	17,0	17,0	17,0

(1) Sound Power measured in Semi-Anechoic Chamber at 1,0m from the source, according to EN 12102-1:2017
(2) Sound Pressure measured in Semi-Anechoic Chamber at 1,0m from the source, according to EN 12102-1:2017

OUTDOOR UNIT DATA

		CKG261	CKG361	CKG501
Outdoor unit				
Type of fan	Type		Axial	
Air flow rate				
Maximum	m^3/h	1950	2200	3600
Sound power (1)				
Maximum	dB(A)	61,0	63,0	65,0
Sound pressure (2)				
Maximum	dB(A)	51,0	53,0	59,0
Compressor				
Type	type		Rotativo Inverter	
Refrigerant	type		R32 / 675kgCO_2eq	
Refrigerant charge	kg	0,51	0,75	1,00
Potential global heating	GWP			
Equivalent CO_2	t	0,34	0,51	0,68
Outdoor unit				
Condensate discharge diameter	mm	16,0	16,0	16,0

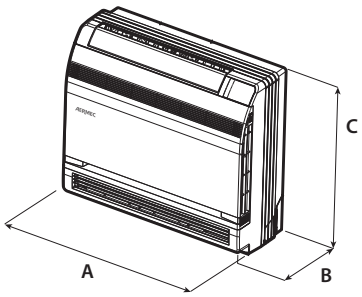
(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

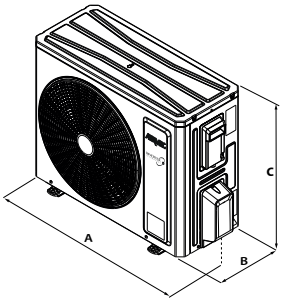
GENERAL DATA

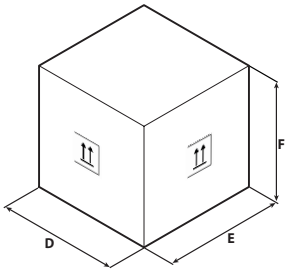
Indoor unit		**CKG261FS**	**CKG361FS**	**CKG501FS**
Outdoor unit		**CKG261**	**CKG361**	**CKG501**
Indoor unit quantity		**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**
Electric data				
Rated power input (1)	kW	0,73	0,96	1,55
Rated current input - cooling	A	5,5	7,0	11,5
Rated current input - heating	A	6,0	7,5	11,5
Refrigerant lines				
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
Maximum refrigerant tube length	m	15	20	25
Maximum refrigerant line level difference	m	10,0	10,0	10,0
Maximum length of refrigerant lines without addition of refrigerant	m	5	5	5
Refrigerant to be added	g/m	16	16	16
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		CKG261FS	CKG361FS	CKG501FS
Indoor unit				
A	mm	700	700	700
B	mm	215	215	215
C	mm	600	600	600
D	mm	788	788	788
E	mm	283	283	283
F	mm	697	697	697
Net weight	kg	15,5	16,0	16,0
Weight for transport	kg	18,5	19,0	19,0

		CKG261	CKG361	CKG501
Outdoor unit				
A	mm	732	802	958
B	mm	330	350	402
C	mm	555	555	660
D	mm	794	872	1032
E	mm	376	398	456
F	mm	615	620	737
Net weight	kg	24,0	27,5	41,0
Weight for transport	kg	26,5	30,0	45,5

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LPG

Monosplit

Cooling capacity 3,5 ÷ 16,0 kW
Heating capacity 4,0 ÷ 17,0 kW

- **SEER up to 7.2.**
- **Wi-fi control using the relative accessory.**



DESCRIPTION

The monosplit air conditioners of the LPG range are combined with:
— LPG_D (Duct) for duct type horizontal installation.
— LPG_C / CS (Cassette) for false ceiling installation.
— LPG_F (Floor ceiling) wall and/or ceiling installation.

TYPE OF INDOOR UNIT

Indoor unit LPG_D

Duct indoor unit, designed for indoor duct type horizontal installation.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRC50** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

Indoor unit LPG_CS

Indoor unit **Cassette** of dimensions (570x570 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

Indoor unit LPG_C

Indoor unit **Cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.

— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

Indoor unit LPG_F

Indoor unit **Floor ceiling** designed to be installed on the wall or ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Easy installation and maintenance.

Low cooling function
cooling operation with outdoor temperatures down to -20 °C.
Low heating function
heating with external temperatures up to -20 °C.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific WRC50W panel, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



TYPE OF OUTDOOR UNIT

Outdoor unit

Reversible air/air heat pump with DC inverter technology.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *

WRC50: Wired panel with liquid crystal display and soft-touch buttons.

WRC50W: Flush panel with LCD display and Soft-Touch keys. With this accessory it is possible to control not only the traditional system functions but also a weekly timer with daily time slots. It is equipped with WiFi and Bluetooth® connection for better connection stability.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

DCG10: This accessory makes it possible to remotely control the main functions of the unit via the relay externally with third-party loads that are suitably powered and sized.

ECD10: This accessory makes it possible to manage the switching on/off of the indoor units via the ON-OFF device.

GLG 40: Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit.

GLG 40S: Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit.

MINIMODBUS20: Thanks to its compact size, this accessory can be easily installed inside the indoor unit. It allows the units to communicate with each other by providing a ModBus RTU serial on RS485 for supervision with external BMS.

*** The CC2 centralised control can manage up to 36 LPG systems.**



Accessories compatibility

LPG_D

Accessory	LPG350D	LPG500D	LPG700D	LPG850D	LPG1000D	LPG1200D	LPG1400D	LPG1600D
CC2 (1)	•	•	•	•	•	•	•	•
WRC50W	•	•	•	•	•	•	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.
Wired panel WRC50 standard supply.

Accessory	LPG350D	LPG500D	LPG700D	LPG850D	LPG1000D	LPG1200D	LPG1400D	LPG1600D
DCG10	•	•	•	•	•	•	•	•
ECD10	•	•	•	•	•	•	•	•
MINIMODBUS20 (1)	•	•	•	•	•	•	•	•

(1) The units can only be routed using the wired control panel. For more information about the procedure refer to the user manual.

LPG_C / CS

Accessory	LPG350CS	LPG500CS	LPG700C	LPG850C	LPG1000C	LPG1200C	LPG1400C	LPG1600C
CC2 (1)	•	•	•	•	•	•	•	•
WRC50	•	•	•	•	•	•	•	•
WRC50W	•	•	•	•	•	•	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

Accessory	LPG350CS	LPG500CS	LPG700C	LPG850C	LPG1000C	LPG1200C	LPG1400C	LPG1600C
DCG10	•	•	•	•	•	•	•	•
ECD10	•	•	•	•	•	•	•	•
MINIMODBUS20 (1)	•	•	•	•	•	•	•	•

(1) The units can only be routed using the wired control panel. For more information about the procedure refer to the user manual.

Accessory	LPG350CS	LPG500CS	LPG700C	LPG850C	LPG1000C	LPG1200C	LPG1400C	LPG1600C
GLG40 (1)			•	•	•	•	•	•
GLG40S (1)	•	•						

(1) Mandatory accessory.

LPG_F

Accessory	LPG350F	LPG500F	LPG700F	LPG850F	LPG1000F	LPG1200F	LPG1400F	LPG1600F
CC2 (1)	•	•	•	•	•	•	•	•
WRC50	•	•	•	•	•	•	•	•
WRC50W	•	•	•	•	•	•	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

Accessory	LPG350F	LPG500F	LPG700F	LPG850F	LPG1000F	LPG1200F	LPG1400F	LPG1600F
DCG10	•	•	•	•	•	•	•	•
ECD10	•	•	•	•	•	•	•	•
MINIMODBUS20 (1)	•	•	•	•	•	•	•	•

(1) The units can only be routed using the wired control panel. For more information about the procedure refer to the user manual.

OUTDOOR UNIT PERFORMANCE DATA

		LPG350	LPG500	LPG700	LPG850	LPG1000	LPG1000T	LPG1200	LPG1200T	LPG1400	LPG1400T	LPG1600T
Outdoor unit												
Type of fan	Type	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial
Air flow rate												
Maximum	m^3/h	1800	2200	3600	3600	4800	4800	5200	5200	5200	5200	5500
Sound power (1)												
Maximum	dB(A)	56,0	65,0	69,0	70,0	70,0	70,0	73,0	73,0	73,0	75,0	75,0
Sound pressure (2)												
Maximum	dB(A)	48,0	52,0	55,0	57,0	57,0	57,0	58,0	58,0	59,0	59,0	60,0
Compressor												
Type	type	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary
Refrigerant	type	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32
Refrigerant charge	kg	0,57	0,85	1,50	1,50	2,10	2,10	2,25	2,25	2,80	2,80	3,50
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,38	0,57	1,01	1,01	1,42	1,42	1,52	1,52	1,89	1,89	2,36
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Maximum refrigerant tube length	m	30	30	30	30	75	75	75	75	75	75	75
Maximum refrigerant line level difference	m	15,0	20,0	20,0	25,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0
Refrigerant to be added	g/m	16	16	20	20	20	20	20	20	35	35	35
Power supply												
Outdoor unit power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N 50Hz	220-240V ~ 50Hz	380-415V ~ 3N 50Hz	220-240V ~ 50Hz	380-415V ~ 3N 50Hz	380-415V ~ 3N 50Hz

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

INDOOR UNIT PERFORMANCE DATA

LPG_D

Indoor unit		LPG350D	LPG500D	LPG700D	LPG850D	LPG1000D	LPG1000D	LPG1200D	LPG1200D	LPG1400D	LPG1400D	LPG1600D
Outdoor unit		**LPG350**	**LPG500**	**LPG700**	**LPG850**	**LPG1000**	**LPG1000T**	**LPG1200**	**LPG1200T**	**LPG1400**	**LPG1400T**	**LPG1600T**
Indoor unit quantity		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Nominal cooling performances												
Cooling capacity (1)	kW	3,50	5,30	7,10	8,50	10,50	10,50	12,10	12,10	13,40	13,40	16,00
Cooling input power (1)	kW	1,03	1,51	1,92	2,50	3,00	3,00	3,58	3,58	4,50	4,50	5,40
EER (2)	W/W	3,40	3,51	3,70	3,40	3,50	3,50	3,38	3,38	2,98	2,98	2,96
Moisture removed	l/h	1,0	1,7	2,4	2,8	3,3	3,3	3,7	3,7	3,9	3,9	4,6
Minimum cooling performances												
Cooling capacity	kW	0,90	1,60	2,40	2,90	3,20	3,20	3,60	3,60	4,00	4,00	4,80
Cooling input power	kW	0,20	0,30	0,50	0,75	0,90	0,90	1,10	1,10	1,35	1,35	1,50
Maximum cooling performances												
Cooling capacity	kW	4,00	5,80	7,60	9,00	11,00	11,00	13,10	13,10	14,20	14,20	17,00
Cooling input power	kW	1,30	1,80	2,60	3,30	4,00	4,00	5,30	5,30	5,60	5,60	6,80
Seasonal efficiency												
SEER	W/W	6,50	6,30	6,60	6,40	6,40	6,40	6,10	6,10	6,10	6,10	6,10
Efficiency energy class (3)		A++	A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignc	kW	3,5	5,3	7,1	8,5	10,5	10,5	-	-	-	-	-
Annual power consumption	kWh/annum	189	294	377	465	574	574	-	-	-	-	-
Nominal heating performances												
Heating capacity (4)	kW	4,00	5,60	8,00	8,80	11,50	11,50	13,50	13,50	15,50	15,50	17,00
Heating input power (4)	kW	1,00	1,42	2,00	2,25	2,80	2,80	3,70	3,70	4,50	4,50	4,70
COP (2)	W/W	4,00	3,94	4,00	3,91	4,11	4,11	3,65	3,65	3,44	3,44	3,62
Minimum heating performances												
Heating capacity	kW	0,90	1,60	2,20	2,50	3,00	3,00	3,60	3,60	3,90	3,90	4,50
Heating input power	kW	0,20	0,30	0,50	0,75	0,90	0,90	1,10	1,10	1,35	1,35	1,50
Maximum heating performances												
Heating capacity	kW	4,50	6,10	8,60	9,50	12,50	12,50	14,50	14,50	16,00	16,00	18,00
Heating input power	kW	1,30	1,80	2,60	3,30	4,00	4,00	5,30	5,30	5,60	5,60	6,80
Seasonal efficiency (temperate climate)												
SCOP	W/W	4,00	4,00	4,10	4,10	4,20	4,20	4,10	4,10	4,00	4,00	4,00
Efficiency energy class (3)		A+	A+	A+	A+	A+	A+	-	-	-	-	-
Pdesignh	kW	3,00	3,90	4,70	6,00	7,00	7,00	-	-	-	-	-
Annual power consumption	kWh/annum	1050	1365	1605	2049	2333	2333	-	-	-	-	-
Electric data												
Rated power input (5)	kW	1,30	1,90	2,80	3,30	4,70	4,40	5,30	5,30	5,60	5,60	6,80
Rated current input (5)	A	6,0	9,5	14,0	15,0	21,0	7,0	23,0	9,0	25,0	11,0	12,0
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9.52 (3/8")	12.7 (1/2")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
Nominal length of refrigerant lines	m	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	7,5	7,5	7,5
Power supply												
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50/60Hz	220-240V ~ 50Hz	380-415V 3N~ 50/60Hz	220-240V ~ 50Hz	380-415V 3N~ 50/60Hz	380-415V 3N~ 50/60Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LPG350D	LPG500D	LPG700D	LPG850D	LPG1000D	LPG1200D	LPG1400D	LPG1600D
Indoor unit									
Type of fan	Type	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal
Air flow rate									
Turbo	m^3/h	600	900	1100	1400	1700	2000	2300	2600
Maximum	m^3/h	550	800	1000	1300	1600	1800	2100	2300
Average	m^3/h	500	700	900	1100	1400	1600	1800	2000
Minimum	m^3/h	400	600	800	1000	1200	1400	1500	1700
High static pressure									
Nominal	Pa	25	25	25	37	50	50	50	50
Maximum	Pa	80	80	160	160	155	155	200	200
Sound pressure									
Turbo	dB(A)	35,0	36,0	37,0	43,0	39,0	43,0	43,0	46,0
Maximum	dB(A)	33,0	35,0	35,0	41,0	38,0	42,0	42,0	44,0
Average	dB(A)	32,0	33,0	33,0	39,0	37,0	41,0	40,0	42,0
Minimum	dB(A)	30,0	31,0	31,0	37,0	36,0	40,0	38,0	40,0
Indoor unit									
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0	26,0	26,0	26,0	26,0

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source (1,5m for type Duct and Cassette)

LPG_CS / C

Indoor unit		LPG350CS	LPG500CS	LPG700C	LPG850C	LPG1000C	LPG1000C	LPG1200C	LPG1200C	LPG1400C	LPG1400C	LPG1600C
Outdoor unit		**LPG350**	**LPG500**	**LPG700**	**LPG850**	**LPG1000**	**LPG1000T**	**LPG1200**	**LPG1200T**	**LPG1400**	**LPG1400T**	**LPG1600T**
Indoor unit quantity		1	1	1	1	1	1	1	1	1	1	1
Outdoor unit quantity		1	1	1	1	1	1	1	1	1	1	1
Nominal cooling performances												
Cooling capacity (1)	kW	3,50	5,00	7,10	8,50	10,50	10,50	12,10	12,10	13,40	13,40	14,50
Cooling input power (1)	kW	0,92	1,47	2,03	2,50	3,10	3,10	3,90	3,90	4,60	4,60	5,30
EER (2)	W/W	3,80	3,40	3,50	3,40	3,40	3,40	3,10	3,10	2,91	2,91	2,74
Moisture removed	l/h	1,0	1,7	2,4	2,8	3,3	3,3	3,7	3,7	3,9	3,9	4,8
Minimum cooling performances												
Cooling capacity	kW	0,90	1,60	2,40	2,90	3,20	3,20	3,60	3,60	4,00	4,00	4,80
Cooling input power	kW	0,20	0,30	0,50	0,75	0,90	0,90	1,10	1,10	1,35	1,35	1,50
Maximum cooling performances												
Cooling capacity	kW	4,00	5,20	7,60	9,00	11,00	11,00	13,10	13,10	14,20	14,20	15,00
Cooling input power	kW	1,30	1,80	2,60	3,30	4,00	4,00	5,30	5,30	5,60	5,60	6,80
Seasonal efficiency												
SEER	W/W	7,10	6,60	6,70	6,90	6,60	6,60	6,10	6,10	6,30	6,30	6,10
Efficiency energy class (3)		A++	A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignc	kW	3,5	5,0	7,1	8,5	10,5	10,5	-	-	-	-	-
Annual power consumption	kWh/annum	173	266	371	432	557	557	-	-	-	-	-
Nominal heating performances												
Heating capacity (4)	kW	4,00	5,60	7,80	8,80	11,50	11,50	13,50	13,50	15,50	15,50	17,00
Heating input power (4)	kW	1,00	1,60	2,00	2,25	2,95	2,95	3,97	3,97	4,70	4,70	5,70
COP (2)	W/W	4,00	3,50	3,90	3,90	3,90	3,90	3,40	3,40	3,30	3,30	2,98
Minimum heating performances												
Heating capacity	kW	0,90	1,60	2,20	2,50	3,00	3,00	3,60	3,60	3,90	3,90	4,50
Heating input power	kW	0,20	0,30	0,50	0,75	0,90	0,90	1,10	1,10	1,35	1,35	1,50
Maximum heating performances												
Heating capacity	kW	4,50	6,10	8,60	9,50	12,50	12,50	14,50	14,50	16,00	16,00	17,50
Heating input power	kW	1,30	1,80	2,60	3,30	4,00	4,00	5,30	5,30	5,60	5,60	6,80
Seasonal efficiency (temperate climate)												
SCOP	W/W	4,20	4,00	4,30	4,30	4,40	4,40	4,10	4,10	4,00	4,00	4,00
Efficiency energy class (3)		A+	A+	A+	A+	A+	A+	-	-	-	-	-
Pdesignh	kW	3,10	3,90	5,00	6,00	7,00	7,00	-	-	-	-	-
Annual power consumption	kWh/annum	1034	1365	1628	1954	2227	2227	-	-	-	-	-
Electric data												
Rated power input (5)	kW	1,30	1,90	2,80	3,30	4,70	4,40	5,30	5,30	5,60	5,60	6,80
Rated current input (5)	A	6,0	9,5	14,0	15,0	21,0	7,0	23,0	9,0	25,0	11,0	12,0
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6.35 (1/4")	6.35 (1/4")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
Diameter of refrigerant gas connections	mm (inch)	9.52 (3/8")	12.7 (1/2")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
Nominal length of refrigerant lines	m	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	7,5	7,5	7,5
Power supply												
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50Hz	380-415V 3N~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LPG350CS	LPG500CS	LPG700C	LPG850C	LPG1000C	LPG1200C	LPG1400C	LPG1600C
Indoor unit									
Type of fan	Type	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal	Inverter centrifugal
Air flow rate									
Turbo	m^3/h	600	720	1100	1400	1500	1700	2000	2300
Maximum	m^3/h	550	650	1000	1300	1400	1500	1800	2100
Average	m^3/h	500	600	900	1100	1200	1300	1600	1900
Minimum	m^3/h	400	500	800	1000	1000	1100	1400	1600
Sound pressure									
Turbo	dB(A)	36,0	43,0	39,0	47,0	43,0	48,0	50,0	52,0
Maximum	dB(A)	35,0	41,0	38,0	46,0	41,0	46,0	48,0	50,0
Average	dB(A)	33,0	39,0	36,0	42,0	39,0	43,0	45,0	48,0
Minimum	dB(A)	29,0	35,0	34,0	38,0	38,0	39,0	41,0	44,0
Indoor unit									
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source (1,5m for type Duct and Cassette)

LPG_F

Indoor unit		LPG350F	LPG500F	LPG700F	LPG850F	LPG1000F	LPG1000F	LPG1200F	LPG1200F	LPG1400F	LPG1400F	LPG1600F
Outdoor unit		**LPG350**	**LPG500**	**LPG700**	**LPG850**	**LPG1000**	**LPG1000T**	**LPG1200**	**LPG1200T**	**LPG1400**	**LPG1400T**	**LPG1600T**
Indoor unit quantity		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Outdoor unit quantity		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Nominal cooling performances												
Cooling capacity (1)	kW	3,50	5,30	7,10	8,50	10,00	10,00	12,10	12,10	13,40	13,40	16,00
Cooling input power (1)	kW	0,92	1,56	2,03	2,50	2,94	2,94	3,67	3,67	4,30	4,30	5,30
EER (2)	W/W	3,80	3,40	3,50	3,40	3,40	3,40	3,30	3,30	3,12	3,12	3,02
Moisture removed	l/h	1,1	1,7	2,4	2,8	3,3	3,3	3,7	3,7	3,9	3,9	4,7
Minimum cooling performances												
Cooling capacity	kW	0,90	1,60	2,40	2,90	3,20	3,20	3,60	3,60	4,00	4,00	4,80
Cooling input power	kW	0,20	0,30	0,50	0,75	0,90	0,90	1,10	1,10	1,35	1,35	1,50
Maximum cooling performances												
Cooling capacity	kW	4,00	5,50	7,60	9,00	10,50	10,50	13,10	13,10	14,20	14,20	17,00
Cooling input power	kW	1,30	1,80	2,60	3,30	4,00	4,00	5,30	5,30	5,60	5,60	6,80
Seasonal efficiency												
SEER	W/W	7,20	6,50	7,20	6,80	6,30	6,30	6,30	6,30	6,30	6,30	6,10
Efficiency energy class (3)		A++	A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignc	kW	3,5	5,3	7,1	8,5	10,0	10,0	-	-	-	-	-
Annual power consumption	kWh/annum	170	285	345	438	556	556	-	-	-	-	-
Nominal heating performances												
Heating capacity (4)	kW	4,00	5,60	7,70	8,80	11,50	11,50	13,50	13,50	15,50	15,50	17,00
Heating input power (4)	kW	0,93	1,44	1,95	2,25	2,95	2,95	3,75	3,75	4,20	4,20	4,80
COP (2)	W/W	4,30	3,90	3,95	3,90	3,90	3,90	3,60	3,60	3,69	3,69	3,54
Minimum heating performances												
Heating capacity	kW	0,90	1,60	2,20	2,50	3,00	3,00	3,60	3,60	3,90	3,90	4,50
Heating input power	kW	0,20	0,30	0,50	0,75	0,90	0,90	1,10	1,10	1,35	1,35	1,50
Maximum heating performances												
Heating capacity	kW	4,50	6,10	8,40	9,50	12,00	12,00	14,50	14,50	16,00	16,00	18,00
Heating input power	kW	1,30	1,80	2,60	3,30	4,00	4,00	5,30	5,30	5,60	5,60	6,80
Seasonal efficiency (temperate climate)												
SCOP	W/W	4,10	4,20	4,30	4,50	4,20	4,20	4,00	4,00	4,00	4,00	4,00
Efficiency energy class (3)		A+	A+	A+	A+	A+	A+	-	-	-	-	-
Pdesignh	kW	3,10	3,90	4,70	6,00	7,00	7,00	-	-	-	-	-
Annual power consumption	kWh/annum	1059	1300	1530	1867	2333	2333	-	-	-	-	-
Electric data												
Rated power input (5)	kW	1,30	1,90	2,80	3,30	4,70	4,40	5,30	5,30	5,60	5,60	6,80
Rated current input (5)	A	6,0	9,5	14,0	15,0	21,0	7,0	23,0	9,0	25,0	11,0	12,0
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6.35 (1/4")	6.35 (1/4")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
Diameter of refrigerant gas connections	mm (inch)	9.52 (3/8")	12.7 (1/2")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
Nominal length of refrigerant lines	m	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	7,5	7,5	7,5
Power supply												
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50Hz	220-240V ~ 50Hz	380-415V 3N~ 50Hz	380-415V 3N~ 50Hz

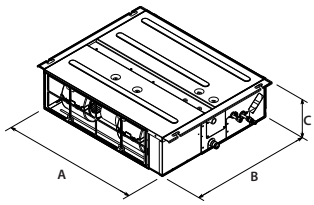
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LPG350F	LPG500F	LPG700F	LPG850F	LPG1000F	LPG1200F	LPG1400F	LPG1600F
Indoor unit									
Type of fan	Type	Inverter centrifugal							
Air flow rate									
Turbo	m^3/h	650	900	1250	1400	1600	1900	2300	2400
Maximum	m^3/h	600	800	1100	1300	1500	1800	2100	2200
Average	m^3/h	500	700	1000	1200	1400	1600	1800	1900
Minimum	m^3/h	400	600	900	1000	1200	1400	1500	1600
Sound pressure									
Turbo	dB(A)	35,0	41,0	41,0	46,0	48,0	45,0	51,0	53,0
Maximum	dB(A)	34,0	40,0	39,0	45,0	46,0	43,0	48,0	51,0
Average	dB(A)	31,0	38,0	37,0	43,0	45,0	40,0	45,0	48,0
Minimum	dB(A)	28,0	36,0	35,0	39,0	43,0	38,0	43,0	44,0
Indoor unit									
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0

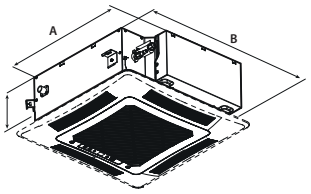
Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source (1,5m for type Duct and Cassette)

INDOOR UNIT WEIGHTS AND DIMENSIONS

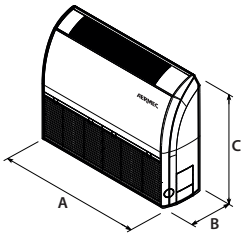
LPG_D

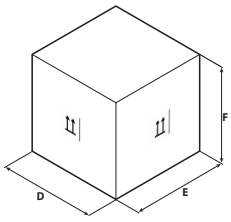


LPG_C / CS



LPG_F





Carton Box Example

LPG_D

		LPG350D	LPG500D	LPG700D	LPG850D	LPG1000D	LPG1200D	LPG1400D	LPG1600D
Indoor unit									
A	mm	710	1000	900	900	1340	1340	1400	1400
B	mm	450	450	655	655	655	655	700	700
C	mm	200	200	260	260	260	260	300	300
Net weight	kg	18,0	24,0	29,5	29,5	43,0	43,0	52,0	55,0
Dimensions and weights for transport									
D	mm	1008	1308	1115	1115	1568	1568	1601	1601
E	mm	568	568	772	772	770	770	813	813
F	mm	275	275	320	320	323	323	365	365
Weight for transport	kg	22,0	29,0	33,5	33,5	49,0	49,0	58,0	62,0

LPG_C / CS

		LPG350CS	LPG500CS	LPG700C	LPG850C	LPG1000C	LPG1200C	LPG1400C	LPG1600C
Indoor unit									
A	mm	570	570	840	840	840	840	840	840
B	mm	570	570	840	840	840	840	840	840
C	mm	260	260	200	200	240	240	290	290
Net weight	kg	17,0	17,0	21,0	21,0	23,0	23,0	25,0	26,0
Dimensions and weights for transport									
D	mm	698	698	943	943	933	933	933	933
E	mm	653	653	923	923	903	903	903	903
F	mm	295	295	245	245	272	272	335	335
Weight for transport	kg	21,0	21,0	27,0	27,0	29,0	29,0	32,0	33,0

LPG_F

		LPG350F	LPG500F	LPG700F	LPG850F	LPG1000F	LPG1200F	LPG1400F	LPG1600F
Indoor unit									
A	mm	870	870	1200	1200	1200	1570	1570	1570
B	mm	235	235	235	235	235	235	235	235
C	mm	665	665	665	665	665	665	665	665
Net weight	kg	24,0	25,0	31,0	32,0	32,0	40,0	42,0	42,0
Dimensions and weights for transport									
D	mm	973	973	1303	1303	1303	1669	1669	1669
E	mm	770	770	770	770	770	770	770	770
F	mm	300	300	300	300	300	300	300	300
Weight for transport	kg	28,0	29,0	36,0	37,0	37,0	47,0	49,0	49,0

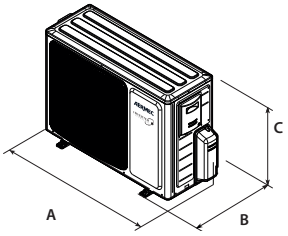
Grid dimensions and weights

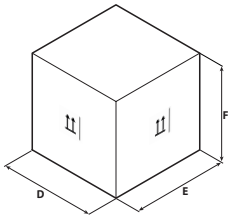
GLG40 - GLG40S

		GLG40	GLG40S
Indoor unit			
A	mm	950	620
B	mm	950	620
C	mm	52	48
D	mm	1033	701
E	mm	1038	701
F	mm	112	125
Net weight	kg	6,0	3,0
Weight for transport	kg	10,0	5,0

Mandatory accessory to be provided when ordering.

OUTDOOR UNIT WEIGHTS AND DIMENSIONS





Carton Box Example

LPG350 - LCGP500 - LPG700 - LPG850
LPG1000 - LPG1000T - LPG1200
LPG1200T LPG1400 - LPG1400T - LP-G1600T

		LPG350	LPG500	LPG700	LPG850	LPG1000	LPG1000T	LPG1200	LPG1200T	LPG1400	LPG1400T	LPG1600T
Outdoor unit												
A	mm	732	802	958	958	1020	1020	1020	1020	1020	1020	1070
B	mm	330	350	402	402	427	427	427	427	427	427	427
C	mm	553	555	660	660	820	820	820	820	820	820	960
Net weight	kg	24,5	30,5	41,5	46,0	65,0	75,0	66,0	76,0	73,0	81,0	94,0
Dimensions and weights for transport												
D	mm	794	872	1032	1032	1095	1095	1095	1095	1095	1095	1150
E	mm	376	398	456	456	500	500	500	500	500	500	475
F	mm	605	609	730	730	955	955	955	955	955	955	1095
Weight for transport	kg	27,0	33,0	45,0	50,0	72,0	88,0	73,0	89,0	86,0	94,0	103,0

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MVAS

Monosplit high head duct

Cooling capacity 22,4 ÷ 28,0 kW
Heating capacity 24,0 ÷ 30,0 kW

- **Suitable for long-distance channels.**
- **Effective static pressure that can reach 150 Pa.**
- **Special coil with fin golden coating.**



DESCRIPTION

The monosplit air conditioners of the MVAS range are combined with MVA_DH monosplit (high head duct) indoor units for duct type horizontal installation.
The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES







Indoor unit

High head duct indoor unit, designed for indoor duct type horizontal installation.

— Every indoor unit comes with a remote control and a remote control holder.
— **WRC** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— 5-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.

— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

ACCESSORIES

MVAGW: This accessory allows you to manage up to 16 MV systems (with a maximum of 255 total indoor units), making available a serial in ModBus RTU protocol on RS485, ModBus TCP or BACnet / IP for supervision with an external BMS.

USBDC / USBDC1: The kit includes a converter (from CanBus to ModBus) and the VRF debugger software. IT is designed to meet the requirements of after sales services and qualified technicians who need to carry out control and debugging procedures on the MV_ ranges.

WRC: Wired panel with liquid crystal display and soft-touch buttons.

WRC1: Simplified wired panel with liquid crystal display and soft-touch buttons with built-in external contact. This panel is particularly suitable for hotel applications.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.



PERFORMANCE SPECIFICATIONS

Indoor unit		MVA2240DH	MVA2800DH
Outdoor unit		**MVAS2242T**	**MVAS2803T**
Indoor unit quantity		**1**	**1**
Outdoor unit quantity		**1**	**1**
Nominal cooling performances			
Cooling capacity (1)	kW	22,40	28,00
Cooling input power (1)	kW	6,12	13,02
Cooling input current	A	10,9	-
EER (2)	W/W	3,66	2,15
Nominal heating performances			
Heating capacity (3)	kW	24,00	28,00
Heating input power (3)	kW	4,90	8,00
Heating input current	A	8,8	-
COP (2)	W/W	4,90	3,50

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		MVA2240DH	MVA2800DH
Indoor unit			
Type of fan	Type	Inverter centrifugal	Inverter centrifugal
Air flow rate			
Maximum	m^3/h	4000	4400
High static pressure			
Nominal	Pa	150	150
Sound power (1)			
Maximum	dB(A)	64,0	65,0
Average	dB(A)	62,0	62,0
Minimum	dB(A)	59,0	60,0
Sound pressure (2)			
Maximum	dB(A)	54,0	55,0
Average	dB(A)	52,0	52,0
Minimum	dB(A)	49,0	50,0
Indoor unit			
Condensate discharge diameter	mm	30,0	30,0

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

OUTDOOR UNIT

		MVAS 2242T	MVAS 2803T
Outdoor unit			
Type of fan	Type	Inverter axial	Inverter axial
Sound power (1)			
Maximum	dB(A)	74,0	-
Sound data calculated in cooling mode			
Maximum sound pressure level	dB(A)	58,0	62,0
Maximum sound power level	dB(A)	78,0	80,0
Sound data calculated in heating mode			
Maximum sound pressure level	dB(A)	58,0	64,0
Maximum sound power level	dB(A)	79,0	82,0
Compressor			
Type	type	Rotary	Rotary
Refrigerant	type	R410A	R410A
Potential global heating	GWP	2088kgCO_2eq	2088kgCO_2eq

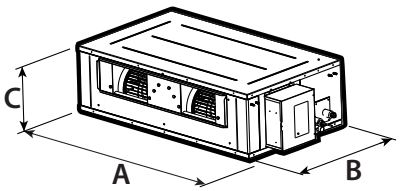
(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

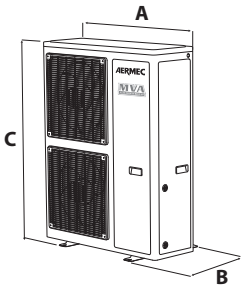
GENERAL DATA

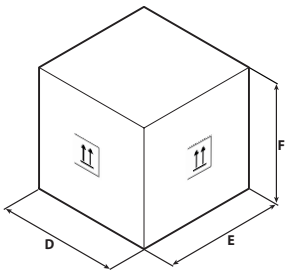
Indoor unit		**MVA2240DH**	**MVA2800DH**
Outdoor unit		**MVAS2242T**	**MVAS2803T**
Indoor unit quantity		**1**	**1**
Outdoor unit quantity		**1**	**1**
Electric data			
Rated power input (1)	kW	9,60	-
Refrigeration pipework			
Type refrigerant connections	Type	To be soldered	To be soldered
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	19,05 (3/4")	22,2 (7/8")
Power supply			
Power supply		380-415V ~ 3N 50/60Hz	380-415V ~ 3N 50/60Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		MVA2240DH	MVA2800DH
Indoor unit			
A	mm	1483	1686
B	mm	791	870
C	mm	385	450
D	mm	1758	1788
E	mm	883	988
F	mm	470	580
Net weight	kg	82,0	105,0
Weight for transport	kg	104,0	140,0

		MVAS2242T	MVAS2803T
Outdoor unit			
A	mm	940	940
B	mm	320	460
C	mm	1430	1615
D	mm	1038	1038
E	mm	438	578
F	mm	1580	1765
Net weight	kg	133,0	163,0
Weight for transport	kg	144,0	175,0

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MPG

Multisplit

Cooling capacity 4,1 ÷ 12,1 kW
Heating capacity 4,4 ÷ 13,0 kW

- **New R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **Modern design to blend with all furnishing styles.**
- **Wide choice of indoor units available.**
- **Special coil with fin blue coating.**

MPG_CS / MPG_C



SPG_W



MPG_D / MPG_DH



CKG_FS



MLG_F



DESCRIPTION

The multisplit air conditioners of the MPG range are combined with:
— **SPG_W Wall**, for wall installation.
— **CKG_FS Console**, for wall installation.
— **MLG_F Floor ceiling**, for wall and/or ceiling installation.
— **MPG_CS** and **MPG_C Cassette**, for false ceiling installation.
— **MPG_D** and **MPG_DH Duct**, for duct type horizontal installation.
Outdoor units equipped with base electric resistance to avoid the possible formation of ice and facilitate the disposal of condensate during heating operation, compressor and fan with DC inverter technology and electronic expansion valve.

TYPE OF INDOOR UNIT

SPG_W indoor unit

Wall indoor unit designed to be installed on indoor walls.
Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series SPG:

	Indoor units SPG_W				
	SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Monosplit outdoor units SPG		•	•	•	•
Multisplit utdoor units MPG	•	•	•	•	•







— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play), the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

CKG_FS indoor unit

Console indoor unit designed to be installed on indoor floors.
Universal indoor units: all indoor units can be combined with both multi-split outdoor units of the series MPG and monosplit outdoor units of the series CKG.





- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Indoor unit front panel with LED display and indicator lights.
- 5-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Air Purifiers (Cold Plasma) is able to reduce pollutants.
- Standard Wi-Fi module.

Single air delivery



Dual air delivery (default)



Intake



Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.

MLG_F indoor unit

Indoor unit **floor ceiling** designed to be installed on the wall or ceiling indoors.

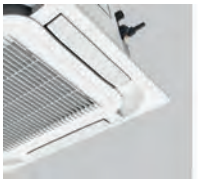




- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

MPG_CS indoor unit

Indoor unit **cassette** of dimensions (570x570 mm) designed to be installed on suspended ceiling indoors.





- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 7-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

MPG_C indoor unit

Indoor unit **cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MPG_D indoor unit

Duct indoor unit designed for indoor duct type installation.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRCB** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MPG_DH indoor unit

Duct indoor unit designed for indoor duct type installation.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRCB** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— **Auto-restart** function.
— **Self-diagnosis** function.
— Air filter easily removed and cleaned.
— Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
— Easy installation and maintenance.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Supplied components for indoor units

Models	SPG_W	CKG_FS	MLG_F	MPG_CS	MPG_C	MPG_D	MPG_DH
Remote control	•	•	•	•	•	•	•
Remote control holder	•	•	•	•	•	•	•
WRCB wired panel WRCB with integrated Wi-Fi module						•	•
Air Purifiers (Cold Plasma)		•					
Wi-Fi module		•					
Condensate discharge pump				•	•	•	•

TYPE OF OUTDOOR UNIT

MPG outdoor unit

Multisplit reversible air/air heat pump with DC inverter technology.

Types:

— **Dualsplit**: outdoor units MPG420 and MPG520 can be combined with 1 or 2 indoor units.
— **Trialsplit**: outdoor units MPG630 and MPG730 can be combined with 2 or 3 indoor units.
— **Quadrisplit**: outdoor unit MPG840 and MPG1040 can be combined with 2, 3 or 4 indoor units.
— **Pentasplit**: outdoor unit MPG1250 can be combined with 2, 3, 4 or indoor units.

Main features:

— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

INDOOR UNIT VERSIONS AVAILABLE

Nominal cooling capacity in kBTU/h	Indoor units						
7	SPG200W						
9	SPG250W	CKG260FS	MLG250F			MPG250D	MPG250DH
12	SPG350W	CKG360FS	MLG350F	MPG350CS		MPG350D	MPG350DH
18	SPG500W	CKG500FS	MLG500F	MPG500CS		MPG500D	MPG500DH
24	SPG700W		MLG700F		MPG700C	MPG700D	MPG700DH

ALLOWED COMBINATIONS OF INDOOR UNITS

For trialsplit, quadrisplit, pentasplit it is mandatory to install at least 2 indoor units for correct functioning of the system.

For further information, please refer to the technical documentation on the website www.aermec.com

MPG420 (14kBTU/h)		MPG520 (18kBTU/h)		MPG630 (21kBTU/h)	
N° unità interne					
1	2	1	2	2	3
7	**7+7**	9	7+7	7+7	**7+7+7**
9	7+9	12	7+9	7+9	7+7+9
12	7+12		7+12	7+12	7+7+12
	9+9		**9+9**	7+18	7+9+9
	9+12		9+12	9+9	7+9+12
			12+12	9+12	7+12+12
				9+18	9+9+9
				12+12	9+9+12
				12+18	

MPG730 (24kBTU/h)		MPG840 (28kBTU/h)		
2	3	2	3	4
7+7	7+7+7	7+7	7+7+7	**7+7+7+7**
7+9	7+7+9	7+9	7+7+9	7+7+7+9
7+12	7+7+12	7+12	7+7+12	7+7+7+12
7+18	7+7+18	7+18	7+7+18	7+7+7+18
9+9	**7+9+9**	9+9	7+9+9	7+7+9+9
9+12	7+9+12	9+12	7+9+12	7+7+9+12
9+18	7+9+18	9+18	7+9+18	7+7+9+18
12+12	7+12+12	12+12	7+12+12	7+7+12+12
12+18	9+9+9	12+18	7+12+18	7+9+9+9
18+18	9+9+12	18+18	9+9+9	7+9+9+12
	9+9+18		9+9+12	7+9+12+12
	9+12+12		9+9+18	9+9+9+9
	12+12+12		9+12+12	9+9+9+12
			9+12+18	9+9+12+12
			12+12+12	
			12+12+18	

Any configuration outside of those listed in the above tables will cause errors on the external drives, resulting in system failure and/or damage.

MPG1040 (36kBTU/h)			MPG1250 (42kBTU/h)					
2	3	4	2	3	4		5	
7+12	7+7+7	7+7+7+7	7+18	7+7+7	7+7+7+7	7+12+12+12	7+7+7+7+7	7+9+9+9+9
7+18	7+7+9	7+7+7+9	7+21	7+7+9	7+7+7+9	7+12+12+21	7+7+7+7+9	7+9+9+9+12
7+21	7+7+12	7+7+7+12	7+24	7+7+12	7+7+7+12	7+12+12+24	7+7+7+7+12	7+9+9+9+18
7+24	7+7+18	7+7+7+18	9+12	7+7+18	7+7+7+18	7+12+18+18	7+7+7+7+18	7+9+9+9+21
9+9	7+7+21	7+7+7+21	9+18	7+7+21	7+7+7+21	7+12+18+21	7+7+7+7+21	7+9+9+9+24
9+12	7+7+24	7+7+7+24	9+21	7+7+24	7+7+7+24	7+12+18+24	7+7+7+7+24	7+9+9+12+12
9+18	7+9+9	7+7+9+9	9+24	7+9+9	7+7+9+9	7+12+21+21	7+7+7+9+9	7+9+9+12+18
9+21	7+9+12	7+7+9+12	12+12	7+9+12	7+7+9+12	7+18+18+18	7+7+7+9+12	7+9+9+12+21
9+24	7+9+18	7+7+9+18	12+18	7+9+18	7+7+9+18	9+9+9+9	7+7+7+9+18	7+9+9+12+24
12+12	7+9+21	7+7+9+21	12+21	7+9+21	7+7+9+21	9+9+9+12	7+7+7+9+21	7+9+9+18+18
12+18	7+9+24	7+7+9+24	12+24	7+9+24	7+7+9+24	9+9+9+18	7+7+7+9+24	7+9+12+12+12
12+21	7+12+12	7+7+12+12	18+18	7+12+12	7+7+12+12	9+9+9+21	7+7+7+12+12	7+9+12+12+18
12+24	7+12+18	7+7+12+18	18+21	7+12+18	7+7+12+18	9+9+9+24	7+7+7+12+18	7+9+12+12+21
18+18	7+12+21	7+7+12+21	18+24	7+12+21	7+7+12+21	**9+9+12+12**	7+7+7+12+21	7+12+12+12+12
18+21	7+12+24	7+7+12+24	21+21	7+12+24	7+7+12+24	9+9+12+18	7+7+7+12+24	7+12+12+12+18
18+24	7+18+18	7+7+18+18	21+24	7+18+18	7+7+18+18	9+9+12+21	7+7+7+18+18	9+9+ 9+9+9
21+21	7+18+21	7+7+18 +21	24+24	7+18+21	7+7+18 +21	9+9+12+24	7+7+7+18+21	9+9+ 9+9+12
21+21	7+18+24	7+9+9+9		7+18+24	7+7+18 +24	9+9+18+18	7+7+7+18+24	9+9+ 9+9+18
24+24	7+21+21	7+9+9+12		7+21+21	7+7+21 +21	9+9+18+21	7+7+7+21+21	9+9+ 9+9+21
	7+21+24	7+9+9+18		7+21+24	7+7+21 +24	9+9+18+24	7+7+9+9+9	9+9+ 9+9+24
	9+9+9	7+9+9+21		7+24+24	7+7+24 +24	9+9+21+21	7+7+9+9+12	9+9+9+12+12
	9+9+12	7+9+9+24		9+9+9	7+9+9+9	9+9+21+24	7+7+9+9+18	9+9+9+12+18
	9+9+18	7+9+12+12		9+9+12	7+9+9+12	9+12+12+12	7+7+9+9+21	9+9+9+12+21
	9+9+21	7+9+12+18		9+9+18	7+9+9+18	9+12+12+18	7+7+9+9+24	9+9+9+12+24
	9+9+24	7+9+12+21		9+9+21	7+9+9+21	9+12+12+21	7+7+9+12+12	9+9+9+18+18
	9+12+12	7+9+12+24		9+9+24	7+9+9+24	9+12+12+24	7+7+9+12+18	9+9+12+12+12
	9+12+18	7+9+18+18		9+12+12	7+9+12+12	9+12+18+18	7+7+9+12+21	9+9+12+12+18
	9+12+21	7+12+12+12		9+12+18	7+9+12+18	9+12+18+21	7+7+9+12+24	9+9+12+12+21
	9+12+24	7+12+12+18		9+12+21	7+9+12+21	9+12+18+24	7+7+9+18+18	9+12+12+12+12
	9+18+18	7+12+12+21		9+12+24	7+9+12+24	9+12+21+21	7+7+9+18+21	9+12+12+12+18
	9+18+21	**9+9+9+9**		9+18+18	7+9+18+18	9+18+18+18	7+7+12+12+12	12+12+12+12+12
	9+18+24	9+9+9+12		9+18+21	7+9+18+21	12+12+12+12	7+7+12+12+18	
	9+21+21	9+9+9+18		9+18+24	7+9+18+24	12+12+12+18	7+7+12+12+21	
	9+21+24	9+9+9+21		9+21+21	7+9+21+21	12+12+12+21	7+7+12+12+24	
	12+12+12	9+9+9+24		9+21+24	7+9+21+24	12+12+12+24	7+7+12+18+18	
	12+12+18	9+9+12+12		9+24+24		12+12+18+18		
	12+12+21	9+9+12+18		12+12+12		12+12+18+21		
	12+12+24	9+9+12+21		12+12+18				
	12+18+18	9+9+12+24		12+12+21				
	12+18+21	9+9+18+18		12+12+24				
	12+18+24	9+12+12+12		12+18+18				
	12+21+21	9+12+12+18		12+18+21				
	18+18+18	9+12+12+21		12+18+24				
		12+12+12+12		12+21+21				
		12+12+12+18		12+21+24				
				12+24+24				
				18+18+18				
				18+18+21				
				18+18+24				
				18+21+21				
				18+21+24				
				21+21+21				

Any configuration outside of those listed in the above tables will cause errors on the external drives, resulting in system failure and/or damage.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *
WRCA: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.
WRCB: Wired panel with liquid crystal display and soft-touch buttons, equipped with an integrated wi-fi module for remote control of the unit (via the dedicated EWPE Smart App).

*** The CC2 centralised control can manage up to 36 MPG systems.**

In order to use accessory CC2, for each indoor unit, the WRCA / WRCB wired panel (accessory) must be installed, with the IC-2P adapter accessory.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

DCK: Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.
WIFIKIT01: Plug & Play module to be installed in the indoor unit for Wi-Fi control, equipped with Bluetooth® connection to ensure a better connection with smart devices. (Cable length 250 mm)

The accessories WRCA and WIFIKIT01 are compatible with one another and can therefore be connected to the same indoor unit simultaneously.

GLG40S: Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit.
GLG40: Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit.



DTG1: Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

ACCESSORIES COMPATIBILITY

SPG_W

Accessory	SPG500W	SPG700W
CC2 (1)	•	•
WRCA (1)	•	•

(1) Auto-restart function.

Accessory	SPG500W	SPG700W
IC-2P	•	•

Accessory	SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
DCK				•	•
WIFIKIT01	•	•	•	•	•

CKG_FS

Accessory	CKG260FS	CKG360FS	CKG500FS
CC2 (1)	•	•	•
WRCA (1)	•	•	•

(1) Auto-restart function.

Accessory	CKG260FS	CKG360FS	CKG500FS
IC-2P	•	•	•

MLG_F

Accessory	MLG250F	MLG350F	MLG500F	MLG700F
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•
WRCB (1)	•	•	•	•

(1) Auto-restart function.

Accessory	MLG250F	MLG350F	MLG500F	MLG700F
IC-2P	•	•	•	•

Accessory	MLG250F	MLG350F	MLG500F	MLG700F
DCK	•	•	•	•

MPG_CS

Accessory	MPG350CS	MPG500CS
CC2 (1)	•	•
WRCA (1)	•	•
WRCB (1)	•	•

(1) Auto-restart function.

Accessory	MPG350CS	MPG500CS
IC-2P	•	•

Accessory	MPG350CS	MPG500CS
GLG40S (1)	•	•

(1) Mandatory accessory.

Accessory	MPG350CS	MPG500CS
DCK	•	•

MPG_C

Accessory	MPG700C
CC2 (1)	•
WRCA (1)	•
WRCB (1)	•

(1) Auto-restart function.

Accessory	MPG700C
IC-2P	•

Accessory	MPG700C
GLG40 (1)	•

(1) Mandatory accessory.

Accessory	MPG700C
DCK	•

MPG_D

Accessory	MPG250D	MPG350D	MPG500D	MPG700D
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•
WRCB (1)	•	•	•	•

(1) Auto-restart function.
Wired panel WRCB standard supply.

Accessory	MPG250D	MPG350D	MPG500D	MPG700D
IC-2P	•	•	•	•

Accessory	MPG250D	MPG350D	MPG500D	MPG700D
DCK	•	•	•	•

MPG_DH

Accessory	MPG250DH	MPG350DH	MPG500DH	MPG700DH
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•
WRCB (1)	•	•	•	•

(1) Auto-restart function.
Wired panel WRCB standard supply.

Accessory	MPG250DH	MPG350DH	MPG500DH	MPG700DH
IC-2P	•	•	•	•

Accessory	MPG250DH	MPG350DH	MPG500DH	MPG700DH
DCK	•	•	•	•

OUTDOOR UNIT PERFORMANCE DATA

		MPG420	MPG520	MPG630	MPG730	MPG840	MPG1040	MPG1250
Nominal cooling performances								
Cooling capacity (1)	kW	4,10	5,30	6,10	7,10	8,00	10,60	12,10
Cooling input power (1)	kW	1,10	1,48	1,48	1,88	2,12	3,00	3,40
EER (2)	W/W	3,73	3,58	4,12	3,78	3,77	3,53	3,56
Minimum cooling performances								
Cooling capacity	kW	2,05	2,14	2,20	2,30	2,30	2,60	2,60
Cooling input power	kW	0,20	0,30	0,40	0,60	0,80	0,60	0,60
Maximum cooling performances								
Cooling capacity	kW	5,00	5,80	8,30	9,20	11,00	12,00	15,20
Cooling input power	kW	2,20	2,50	2,90	3,40	3,60	4,60	4,60
Seasonal efficiency								
SEER	W/W	6,70	6,50	6,90	6,50	6,10	6,50	6,48
Annual power consumption	kWh/annum	214	285	309	382	459	571	-
Efficiency energy class (3)		A++	A++	A++	A++	A++	A++	-
Nominal heating performances								
Heating capacity (4)	kW	4,40	5,65	6,50	8,60	9,50	12,00	13,00
Heating input power (4)	kW	0,97	1,25	1,43	2,23	2,20	3,04	3,19
COP (2)	W/W	4,54	4,52	4,55	3,86	4,32	3,95	4,08
Minimum heating performances								
Heating capacity	kW	2,49	2,58	3,60	3,65	3,65	3,00	3,00
Heating input power	kW	0,30	0,40	0,40	0,60	0,70	0,80	0,80
Maximum heating performances								
Heating capacity	kW	5,40	6,50	8,50	9,20	10,25	14,00	15,50
Heating input power	kW	2,25	2,50	2,90	3,00	3,60	5,00	5,00
Seasonal efficiency (temperate climate)								
SCOP	W/W	4,00	4,00	3,80	3,80	4,00	3,80	3,80
Annual power consumption	kWh/annum	1295	1435	2247	2247	2345	3795	-
Efficiency energy class (3)		A+	A+	A	A	A+	A	-
Outdoor unit								
Type of fan	Type	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial
Air flow rate								
Maximum	m^3/h	2300	2300	3800	3800	3800	5800	5800
Sound power (5)								
Maximum	dB(A)	62,0	64,0	68,0	68,0	68,0	70,0	74,0
Sound pressure (1 m) (6)								
Maximum	dB(A)	52,0	54,0	58,0	58,0	58,0	60,0	60,0
Compressor								
Type	type	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary
Refrigerant	type	R32	R32	R32	R32	R32	R32	R32
Refrigerant charge	kg	0,75	0,90	1,60	1,70	1,80	2,40	2,40
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,51	0,61	1,08	1,15	1,22	1,62	1,62
Electric data								
Rated power input (7)	kW	2,30	2,50	2,90	3,40	3,60	5,00	5,00
Rated current input (7)	A	10,0	11,0	12,9	15,0	16,0	21,7	21,7
Refrigeration pipework								
Maximum refrigerant tube length	m	40	40	60	60	70	80	100
Maximum single cooling line length	m	20,0	20,0	20,0	20,0	20,0	25,0	25,0
Maximum unit (indoor/external) cooling line level difference in height	m	15,0	15,0	15,0	15,0	15,0	25,0	25,0
Maximum (indoor/outdoor) cooling line level difference	m	15,0	15,0	15,0	15,0	15,0	25,0	25,0
Refrigerant to be added	g/m	20	20	20	20	20	20	20
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Power supply								
Outdoor unit power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(6) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
(7) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
All technical data refer to the respective reference combinations of the indoor units.

INDOOR UNIT PERFORMANCE DATA

SPG_W

		SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Nominal cooling performances						
Cooling capacity (1)	kW	2,20	2,50	3,20	4,60	6,20
Moisture removed	l/h	0,6	0,6	1,4	1,8	1,8
Nominal heating performances						
Heating capacity (2)	kW	2,40	2,80	3,40	5,20	6,50
Indoor unit						
Type of fan	Type			Inverter centrifugal		
Input power	W	13	13	23	38	38
Air flow rate						
Minimum	m^3/h	250	270	320	600	650
Average	m^3/h	420	390	400	700	750
Maximum	m^3/h	470	470	520	800	950
Turbo	m^3/h	500	500	590	850	1100
Sound power (3)						
Minimum	dB(A)	34,0	34,0	38,0	44,0	49,0
Average	dB(A)	45,0	44,0	45,0	48,0	52,0
Maximum	dB(A)	49,0	48,0	49,0	52,0	58,0
Turbo	dB(A)	55,0	55,0	56,0	54,0	61,0
Sound pressure (1 m) (4)						
Minimum	dB(A)	22,0	22,0	26,0	34,0	35,0
Average	dB(A)	33,0	32,0	33,0	38,0	38,0
Maximum	dB(A)	36,0	36,0	37,0	42,0	44,0
Turbo	dB(A)	39,0	38,0	41,0	44,0	47,0
Indoor unit						
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0	16,0
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

CKG_FS

		CKG260FS	CKG360FS	CKG500FS
Nominal cooling performances				
Cooling capacity (1)	kW	2,70	3,50	5,20
Moisture removed	l/h	0,8	1,2	1,8
Nominal heating performances				
Heating capacity (2)	kW	2,90	3,80	5,33
Indoor unit				
Type of fan	Type		Inverter centrifugal	
Input power	W	35	40	50
Air flow rate				
Minimum	m^3/h	280	360	410
Average	m^3/h	370	440	520
Maximum	m^3/h	430	520	650
Turbo	m^3/h	500	600	700
Sound power (3)				
Minimum	dB(A)	38,0	39,0	47,0
Average	dB(A)	44,0	46,0	51,0
Maximum	dB(A)	48,0	50,0	55,0
Turbo	dB(A)	50,0	54,0	57,0
Sound pressure (4)				
Minimum	dB(A)	26,0	29,0	37,0
Average	dB(A)	31,0	36,0	41,0
Maximum	dB(A)	36,0	40,0	45,0
Turbo	dB(A)	39,0	44,0	47,0
Indoor unit				
Condensate discharge diameter	mm	17,0	17,0	17,0
Power supply				
Indoor unit power supply			220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Nominal cooling performances					
Cooling capacity (1)	kW	2,60	3,50	4,50	7,10
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,70	4,00	5,00	8,00
Electric data					
Rated power input (3)	W	38	38	38	60
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Input power	W	38	38	38	60
Air flow rate					
Minimum	m^3/h	420	420	410	720
Average	m^3/h	540	540	520	800
Maximum	m^3/h	610	610	590	870
Turbo	m^3/h	700	700	680	950
Sound power (4)					
Minimum	dB(A)	40,0	40,0	40,0	41,0
Average	dB(A)	44,0	44,0	44,0	45,0
Maximum	dB(A)	49,0	49,0	49,0	52,0
Turbo	dB(A)	52,0	52,0	52,0	52,0
Sound pressure (5)					
Minimum	dB(A)	26,0	26,0	26,0	27,0
Average	dB(A)	30,0	30,0	30,0	31,0
Maximum	dB(A)	35,0	35,0	35,0	35,0
Turbo	dB(A)	38,0	38,0	38,0	38,0
Indoor unit					
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_CS

		MPG350CS	MPG500CS
Nominal cooling performances			
Cooling capacity (1)	kW	3,50	5,00
Moisture removed	l/h	1,4	1,8
Nominal heating performances			
Heating capacity (2)	kW	4,00	5,50
Indoor unit			
Type of fan	Type	Inverter centrifugal	
Input power	W	30	35
Air flow rate			
Minimum	m^3/h	380	380
Average	m^3/h	450	450
Maximum	m^3/h	540	540
Turbo	m^3/h	560	650
Sound power (3)			
Minimum	dB(A)	46,0	46,0
Average	dB(A)	50,0	50,0
Maximum	dB(A)	55,0	55,0
Turbo	dB(A)	57,0	59,0
Sound pressure (1 m) (4)			
Turbo	dB(A)	41,0	43,0
Minimum	dB(A)	30,0	30,0
Average	dB(A)	34,0	34,0
Maximum	dB(A)	39,0	39,0
Indoor unit			
Condensate discharge diameter	mm	25,0	25,0
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_C

		MPG700C
Nominal cooling performances		
Cooling capacity (1)	kW	7,00
Moisture removed	l/h	2,5
Nominal heating performances		
Heating capacity (2)	kW	8,00
Indoor unit		
Type of fan	Type	Inverter centrifugal
Input power	W	50
Air flow rate		
Minimum	m^3/h	830
Average	m^3/h	910
Maximum	m^3/h	1050
Turbo	m^3/h	1100
Sound pressure (1 m) (3)		
Turbo	dB(A)	44,0
Minimum	dB(A)	38,0
Average	dB(A)	40,0
Maximum	dB(A)	43,0
Sound power (4)		
Minimum	dB(A)	57,0
Average	dB(A)	59,0
Maximum	dB(A)	61,0
Turbo	dB(A)	62,0
Indoor unit		
Condensate discharge diameter	mm	25,0
Power supply		
Indoor unit power supply		220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_D

		MPG250D	MPG350D	MPG500D	MPG700D
Nominal cooling performances					
Cooling capacity (1)	kW	2,65	3,50	5,00	7,00
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,80	4,00	5,50	8,00
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Input power	W	70	80	80	200
Air flow rate					
Minimum	m^3/h	220	300	420	900
Average	m^3/h	340	420	610	1000
Maximum	m^3/h	450	540	720	1200
Turbo	m^3/h	560	600	800	1300
Sound pressure (1 m) (3)					
Turbo	dB(A)	32,0	36,0	36,0	46,0
Minimum	dB(A)	22,0	27,0	25,0	36,0
Average	dB(A)	22,0	27,0	25,0	36,0
Maximum	dB(A)	28,0	34,0	31,0	42,0
Sound power (4)					
Minimum	dB(A)	37,0	42,0	40,0	51,0
Average	dB(A)	40,0	46,0	43,0	55,0
Maximum	dB(A)	43,0	49,0	46,0	57,0
Turbo	dB(A)	47,0	51,0	51,0	61,0
Indoor unit					
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_DH

		MPG250DH	MPG350DH	MPG500DH	MPG700DH
Nominal cooling performances					
Cooling capacity (1)	kW	2,65	3,50	5,00	7,00
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,80	4,00	5,50	8,00
Indoor unit					
Type of fan	Type	Inverter centrifugal			
Input power	W	50	50	75	80
High static pressure					
Maximum	Pa	60	60	60	125
Air flow rate					
Minimum	m^3/h	550	410	750	900
Average	m^3/h	610	480	790	1000
Maximum	m^3/h	670	560	840	1200
Turbo	m^3/h	700	650	880	1500
Sound pressure (1 m) (3)					
Turbo	dB(A)	41,0	39,0	41,0	45,0
Minimum	dB(A)	35,0	33,0	37,0	36,0
Average	dB(A)	37,0	35,0	38,0	38,0
Maximum	dB(A)	39,0	37,0	39,0	40,0
Sound power (4)					
Minimum	dB(A)	51,0	49,0	53,0	53,0
Average	dB(A)	53,0	51,0	54,0	55,0
Maximum	dB(A)	55,0	53,0	55,0	57,0
Turbo	dB(A)	57,0	55,0	57,0	62,0
Indoor unit					
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0
Power supply					
Indoor unit power supply		220-240V ~ 50Hz			

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

INDOOR UNIT COOLING FITTINGS

SPG_W

		SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")

CKG_FS

		CKG260FS	CKG360FS	CKG500FS
Refrigeration pipework				
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4)	6,35 (1/4)	6,35 (1/4)	9,52 (3/8)
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8)	9,52 (3/8)	12,7 (1/2)	15,9 (5/8)

MPG_CS

		MPG350CS	MPG500CS
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")

MPG_C

		MPG700C
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")

MPG_D

		MPG250D	MPG350D	MPG500D	MPG700D
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")

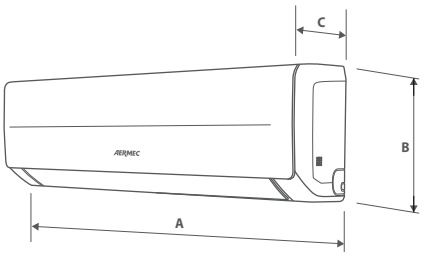
MPG_DH

		MPG250DH	MPG350DH	MPG500DH	MPG700DH
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")

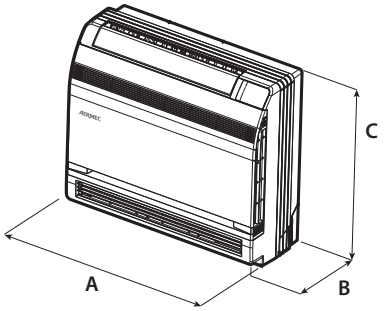
OUTDOOR UNIT COOLING FITTINGS

Models			MPG420	MPG520	MPG630	MPG730	MPG840	MPG1040	MPG1250
			14kBtu/h	18kBtu/h	21kBtu/h	24kBtu/h	28kBtu/h	36kBtu/h	42kBtu/h
Liquid connections	A	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	B	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	C	mm (inch)			9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	D	mm (inch)					9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	E	mm (inch)							9,52 (3/8")
Gas connections	A	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	B	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	C	mm (inch)			6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	D	mm (inch)					6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	E	mm (inch)							6,35 (1/4")

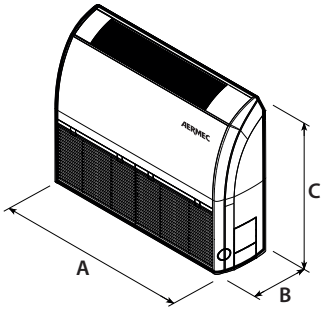
INDOOR UNIT WEIGHTS AND DIMENSIONS



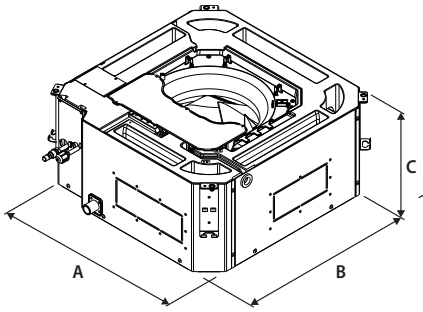
SPG_W



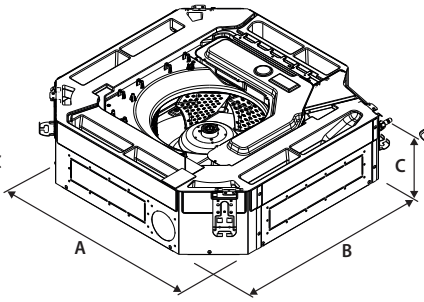
CKG_FS



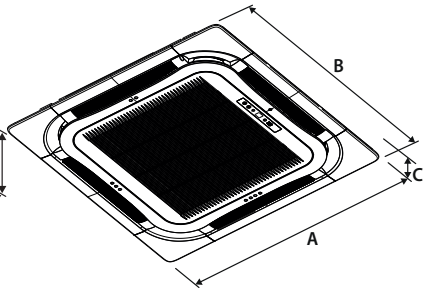
MLG_F



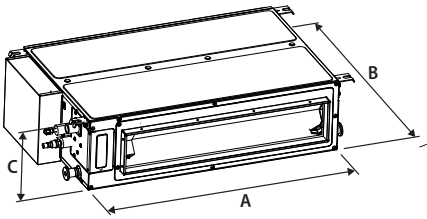
MPG_CS



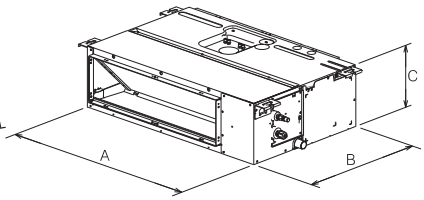
MPG_C



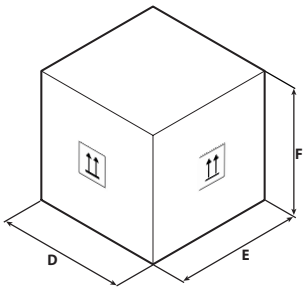
GLG40S / GLG40



MPG_D



MGE_DH



Carton Box Example

SPG_W

		SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Indoor unit						
A	mm	696	696	770	972	1081
B	mm	251	251	251	300	325
C	mm	190	190	190	225	248
D	mm	747	747	822	1022	1137
E	mm	324	324	324	374	407
F	mm	262	262	262	299	334
Net weight	kg	7,5	7,5	8,5	13,5	16,5
Weight for transport	kg	9,0	9,0	10,0	16,0	19,5

CKG_FS

		CKG260FS	CKG360FS	CKG500FS
Indoor unit				
A	mm	700	700	700
B	mm	215	215	215
C	mm	600	600	600
D	mm	788	788	788
E	mm	283	283	283
F	mm	697	697	697
Net weight	kg	15,5	15,5	15,5
Weight for transport	kg	18,5	18,5	18,5

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Indoor unit					
A	mm	870	870	870	1200
B	mm	235	235	235	235
C	mm	665	665	665	665
D	mm	1033	1033	1033	1363
E	mm	300	300	300	300
F	mm	770	770	770	770
Net weight	kg	25,0	25,0	26,0	33,0
Weight for transport	kg	30,0	30,0	31,0	40,0

MPG_CS

		MPG350CS	MPG500CS
Indoor unit			
A	mm	570	570
B	mm	570	570
C	mm	265	265
D	mm	698	698
E	mm	653	653
F	mm	295	295
Net weight	kg	17,0	17,0
Weight for transport	kg	22,0	22,0

MPG_C

		MPG700C
Indoor unit		
A	mm	840
B	mm	840
C	mm	240
D	mm	963
E	mm	963
F	mm	325
Net weight	kg	29,0
Weight for transport	kg	36,0

GLG40S / GLG40

		GLG40S	GLG40
Indoor unit			
A	mm	620	950
B	mm	620	950
C	mm	48	52
D	mm	701	1033
E	mm	701	1038
F	mm	125	112
Net weight	kg	3,0	6,0
Weight for transport	kg	5,0	10,0

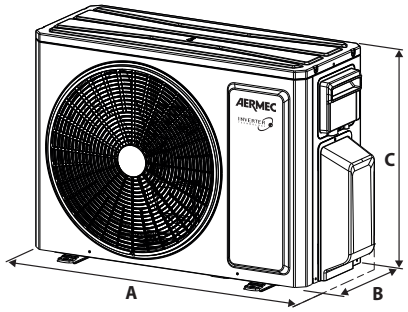
MPG_D

		MPG250D	MPG350D	MPG500D	MPG700D
Indoor unit					
A	mm	710	710	1010	900
B	mm	450	450	450	655
C	mm	200	200	200	260
D	mm	1008	1008	1308	1115
E	mm	568	568	568	772
F	mm	275	275	275	320
Net weight	kg	18,5	19,0	25,0	31,0
Weight for transport	kg	22,5	23,0	30,0	36,0

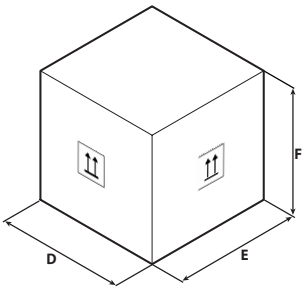
MPG_DH

		MPG250DH	MPG350DH	MPG500DH	MPG700DH
Indoor unit					
A	mm	710	710	1010	900
B	mm	450	450	450	655
C	mm	200	200	200	260
D	mm	1008	1008	1308	1115
E	mm	568	568	568	772
F	mm	275	275	275	320
Net weight	kg	18,5	19,0	25,0	31,0
Weight for transport	kg	22,5	23,0	30,0	36,0

OUTDOOR UNIT WEIGHTS AND DIMENSIONS



MPG



Carton Box Example

MPG

		MPG420	MPG520	MPG630	MPG730	MPG840	MPG1040	MPG1250
Outdoor unit								
A	mm	822	822	964	964	964	1020	1020
B	mm	352	352	402	402	402	427	427
C	mm	555	555	660	660	660	826	826
D	mm	872	872	1032	1032	1032	1095	1095
E	mm	398	398	456	456	456	500	500
F	mm	620	620	737	737	737	955	955
Net weight	kg	30,0	32,0	47,5	47,5	51,0	72,0	73,0
Weight for transport	kg	32,5	34,5	52,0	52,0	55,5	85,0 (1)	86,0 (1)

(1) Packaging + pallet

Aermec reserves the right to make any modiÿcations deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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MGE

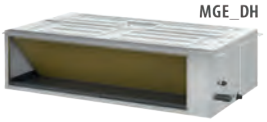
Multisplit

Cooling capacity 4,1 ÷ 12,31 kW
Heating capacity 4,4 ÷ 12,31 kW

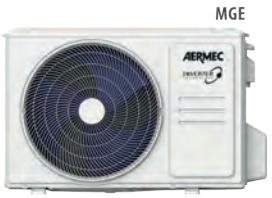
- **R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **Modern design to blend with all furnishing styles.**
- **Wide choice of indoor units available.**
- **Special golden fin coil.**











DESCRIPTION

The multisplit air conditioners of the MGE range are combined with:
— SGE_W unit **wall**, for wall installation.
— MGE_C_CSunit **Cassette** for false ceiling installation.
— MGE_FS unit **Console**, for wall installation.
— MGE_DH unit **Duct**, for duct type horizontal installation.

TYPE OF OUTDOOR UNIT

Outdoor unit

Multisplit air conditioner.
Reversible air/air heat pump with DC inverter technology.

Types

— **Dualsplit**: outdoor units MGE420 and MGE520 can be combined with 2 indoor units.
— **Trialsplit**: outdoor units MGE630 and MGE830 can be combined with 2 or 3 indoor units.
— **Quadrisplit**: outdoor unit MGE840 and MGE1040 can be combined with 2, 3 or 4 indoor units.
— **Pentasplit**: outdoor unit MGE1250 can be combined with 2, 3, 4 or indoor units.

General features

— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



TYPE OF INDOOR UNIT

Indoor unit SGE_W

Wall indoor unit designed to be installed on indoor walls.
SGE_W has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.



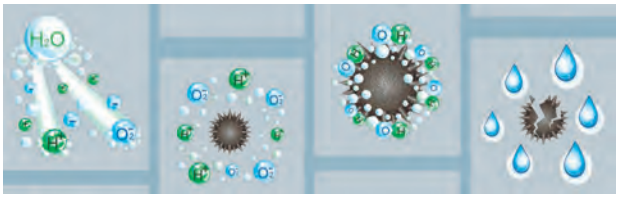
Features

— Remote control standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.

Not available for SGE200W



MGE_CS - MGE_C Indoor unit

Indoor unit **Cassette** of dimensions 570x570 mm (MGE350CS - MGE500CS) and 830x830 mm (MGE700C) designed to be installed on suspended ceiling indoors.



Features

— Remote control standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— **4-speed** fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function
— Louver angle memory function.
— **Sleep** night time function well-being program.
— Refrigerant Leak Detection System.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— **Dehumidification** function that allows humidity control

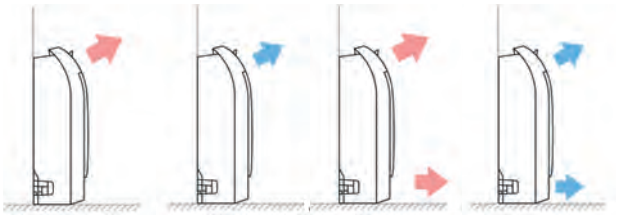
MGE_FS Indoor unit

Console indoor unit designed to be installed on indoor floors.



Features

— Remote control standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— **4-speed** fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function
— Louver angle memory function.
— **Sleep** night time function well-being program.
— Refrigerant Leak Detection System.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.



Single air delivery Dual air delivery

MGE_DH Indoor unit

Duct indoor unit designed for indoor duct type installation.



Features

— Remote control standard supply with each indoor unit.
— **WRPE10** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Timer for programming switch-off and switch-on.
— **4-speed** fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function
— **Sleep** night time function well-being program.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

General features

— R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
— Easy installation and maintenance.

Low cooling function

cooling operation with outdoor temperatures down to -15 °C

Low heating function

heating with external temperatures up to -15 °C.

Nethome Plus app

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



ACCESSORIES

WIFIKEY: Plug & Play module to be installed in the indoor unit for Wi-Fi control.
WRPE10: Wired panel with liquid crystal display and soft-touch buttons.
WRPE10W: Flush panel with LCD display and Soft-Touch keys. It is equipped with WiFi and Bluetooth® connection for better connection stability.
GLE10S: Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit. Mandatory accessory.
GLE10: Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit. Mandatory accessory.











Accessories compatibility

SGE_W

Accessory	SGE200W	SGE250W	SGE350W	SGE500W
WIFIKEY	•	•	•	•

MGE_C / CS

Accessory	MGE350CS	MGE500CS	MGE700C
WIFIKEY	•	•	•

Accessory	MGE350CS	MGE500CS	MGE700C
WRPE10	•	•	•
WRPE10W	•	•	•

Accessory	MGE350CS	MGE500CS	MGE700C
GLE10 (1)			•
GLE10S (1)	•	•	

(1) Mandatory accessory.

MGE_DH

Accessory	MGE250DH	MGE350DH	MGE500DH	MGE700DH
WRPE10W	•	•	•	•

Wired panel WRPE10 standard supply.

MGE_FS

Accessory	MGE250FS	MGE350FS	MGE500FS
WIFIKEY	•	•	•

Accessory	MGE250FS	MGE350FS	MGE500FS
WRPE10	•	•	•
WRPE10W	•	•	•

ALLOWED COMBINATIONS OF INDOOR UNITS

For trialsplit, quadrisplit or pentasplit MGE units, it is mandatory to install at least 2 indoor units for correct functioning of the system.
For further information, please refer to the technical documentation on the website www.aermec.com

MGE420	MGE520	MGE630		MGE830		MGE840		
BI (1x2)	BI (1x2)	TRI (1x2)	TRI (1x3)	TRI (1x2)	TRI (1x3)	QUADRI (1x2)	QUADRI (1x3)	QUADRI (1x4)
7+7	7+7	7+7	**7+7+7**	7+7	7+7+7	7+7	7+7+7	7+7+7+7
7+9	7+9	7+9	7+7+9	7+9	7+7+9	7+9	7+7+9	7+7+7+9
7+12	7+12	7+12	7+7+12	7+12	7+7+12	7+12	7+7+12	7+7+7+12
9+9	**9+9**	7+18	7+9+9	7+18	7+7+18	7+18	7+7+18	7+7+7+18
	9+12	9+9	7+9+12	9+9	7+9+9	7+24	7+7+24	7+7+9+9
	12+12	9+12	9+9+9	9+12	7+9+12	9+9	7+9+9	7+7+9+12
		9+18		9+18	7+9+18	9+12	7+9+12	7+7+9+18
		12+12		12+12	7+12+12	9+18	7+9+18	7+7+12+12
				12+18	**9+9+9**	9+24	7+9+24	7+9+9+9
					9+9+12	12+12	7+12+12	7+9+9+12
					9+12+12	12+18	7+12+18	7+9+12+12
					12+12+12	12+24	9+9+9	9+9+9+9
							9+9+12	9+9+9+12
							9+9+18	9+9+12+12
							9+9+24	
							9+12+12	
							9+12+18	
							12+12+12	
							12+12+18	

MGE1040			MGE1250			
QUADRI (1x2)	QUADRI (1x3)	QUADRI (1x4)	PENTA (1x2)	PENTA (1x3)	PENTA (1x4)	PENTA (1x5)
7+12	7+7+7	7+7+7+7	7+18	7+7+7	7+7+7+7	7+7+7+7+7
7+18	7+7+9	7+7+7+9	7+24	7+7+9	7+7+7+9	7+7+7+7+9
7+24	7+7+12	7+7+7+12	9+12	7+7+12	7+7+7+12	7+7+7+7+12
9+9	7+7+18	7+7+7+18	9+18	7+7+18	7+7+7+18	7+7+7+7+18
9+12	7+7+24	7+7+7+24	9+24	7+7+24	7+7+7+24	7+7+7+7+24
9+18	7+9+9	7+7+9+9	12+12	7+9+9	7+7+9+9	7+7+7+9+9
9+24	7+9+12	7+7+9+12	12+18	7+9+12	7+7+9+12	7+7+7+9+12
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	9+9+18	7+9+12+12		9+9+18	7+9+9+18	7+7+9+9+18
	9+9+24	7+9+12+18		9+9+24	7+9+9+24	7+7+9+9+24
	9+12+12	7+12+12+12		9+12+12	7+9+12+12	7+7+9+12+12
	9+12+18	9+9+9+9		9+12+18	7+9+12+18	7+7+9+12+18
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						12+12+12+12+18

OUTDOOR UNIT PERFORMANCE DATA

		MGE420	MGE520	MGE630	MGE830	MGE840	MGE1040	MGE1250
Nominal cooling performances								
Cooling capacity (1)	kW	4,10	5,30	6,15	7,90	8,20	10,55	12,31
Cooling input power (1)	kW	1,27	1,64	1,91	2,45	2,54	3,30	3,81
EER (2)	W/W	3,23	3,23	3,23	3,23	3,23	3,20	3,23
Minimum cooling performances								
Cooling capacity	kW	1,47	2,29	1,99	3,18	2,34	3,64	3,02
Cooling input power	kW	0,12	0,69	0,18	0,29	0,20	0,33	0,28
Maximum cooling performances								
Cooling capacity	kW	4,98	5,71	6,59	8,21	10,02	10,84	12,31
Cooling input power	kW	1,67	2,00	2,20	3,10	3,45	4,25	4,65
Seasonal efficiency								
SEER	W/W	5,60	6,10	6,10	6,10	6,10	6,20	6,10
Efficiency energy class (3)		A+	A++	A++	A++	A++	A++	A++
Annual power consumption	kWh/annum	258	309	350	453	470	598	714
Nominal heating performances								
Heating capacity (4)	kW	4,40	5,57	6,45	8,20	8,79	10,85	12,31
Heating input power (4)	kW	1,19	1,50	1,74	2,21	2,20	2,76	3,30
COP (2)	W/W	3,71	3,71	3,71	3,71	4,00	3,93	3,73
Minimum heating performances								
Heating capacity	kW	1,52	2,40	1,99	2,29	2,37	2,85	3,46
Heating input power	kW	0,12	0,60	0,35	0,37	0,43	0,47	0,65
Maximum heating performances								
Heating capacity	kW	4,98	5,74	6,68	8,50	10,49	12,02	12,31
Heating input power	kW	1,67	1,78	1,80	2,90	3,05	4,21	3,80
Seasonal efficiency (temperate climate)								
SCOP	W/W	3,80	3,80	4,00	4,00	3,80	3,80	3,50
Efficiency energy class (3)		A	A	A+	A+	A	A	A
Annual power consumption	kWh/annum	1400	1768	1910	1960	2395	3316	3933
Power supply								
Outdoor unit power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

Outdoor unit technical data

		MGE420	MGE520	MGE630	MGE830	MGE840	MGE1040	MGE1250
Outdoor unit								
Type of fan	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Air flow rate								
Maximum	m^3/h	2100	2100	3000	3000	3800	4000	3850
Sound power								
Maximum	dB(A)	64,0	65,0	65,0	67,0	67,0	67,0	69,0
Sound pressure (1 m)								
Maximum	dB(A)	56,0	54,0	58,0	58,0	61,5	61,0	64,0
Compressor								
Type	type	Inverter rotary	Inverter rotary	Inverter rotary	Twin rotary inverter	Twin rotary inverter	Inverter rotary	Inverter rotary
Refrigerant	type	R32	R32	R32	R32	R32	R32	R32
Refrigerant charge	kg	1,10	1,25	1,50	1,85	2,10	2,10	2,90
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,743	0,844	1,013	1,240	1,418	1,420	1,960
Outdoor unit								
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0	16,0	16,0	16,0

- Sound pressure: measured in semi anechoic chamber at a distance of 1 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

Outdoor unit general technical data

		MGE420	MGE520	MGE630	MGE830	MGE840	MGE1040	MGE1250
Electric data								
Rated power input (1)	W	2750	3050	3910	4100	4150	4600	4700
Rated current input (1)	A	12,0	13,0	17,0	18,0	19,0	21,5	22,0
Refrigeration pipework								
Maximum refrigerant tube length	m	40	40	60	60	80	80	80
Maximum single cooling line length	m	25,0	25,0	30,0	30,0	35,0	35,0	35,0
Refrigerant to be added	g/m	12	12	12	12	12	12	12
Maximum unit (indoor/external) cooling line level difference in height	m	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Maximum (indoor/outdoor) cooling line level difference	m	15,0	15,0	15,0	15,0	15,0	15,0	15,0
Liquid cooling connections								
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Number	no.	2	2	3	3	4	4	5
Refrigerant gas connections								
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52/12,7 (3/8"-1/2")	9,52/12,7 (3/8"-1/2")	9,52/12,7 (3/8"-1/2")
Number	no.	2	2	3	3	3/1	3/1	4/1

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

INDOOR UNIT PERFORMANCE DATA

SGE_W

		SGE200W	SGE250W	SGE350W	SGE500W	SGE700W
Nominal cooling performances						
Cooling capacity (1)	kW	2,05	2,77	3,46	5,27	5,27
Nominal heating performances						
Heating capacity (2)	kW	2,34	2,93	3,57	4,97	4,97
Indoor unit						
Type of fan	Type	Tangential	Tangential	Tangential	Tangential	Tangential
Air flow rate						
Maximum	m^3/h	460	466	540	840	980
Average	m^3/h	360	360	430	680	817
Minimum	m^3/h	325	325	314	540	662
Sound power (3)						
Maximum	dB(A)	54,0	54,0	55,0	56,0	59,0
Average	dB(A)	-	-	-	-	-
Minimum	dB(A)	-	-	-	-	-
Sound pressure (1 m) (4)						
Minimum	dB(A)	21,0	25,0	25,0	26,0	36,0
Maximum	dB(A)	40,0	38,5	40,5	42,5	45,0
Average	dB(A)	26,0	32,0	34,5	36,0	40,5
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12.7 (1/2")	15,9 (5/8")
Power supply						
Indoor unit power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

MGE_CS/MGE_C

		MGE350CS	MGE500CS	MGE700C
Nominal cooling performances				
Cooling capacity	kW	3,52	5,28	7,03
Nominal heating performances				
Heating capacity	kW	3,81	5,57	7,62
Indoor unit				
Type of fan	Type	Tangential	Tangential	Tangential
Air flow rate				
Minimum	m^3/h	330	300	992
Average	m^3/h	520	540	1118
Maximum	m^3/h	620	660	1247
Sound power				
Minimum	dB(A)	-	-	-
Average	dB(A)	-	-	-
Maximum	dB(A)	55,0	59,0	59,0
Sound pressure				
Minimum	dB(A)	31,5	31,5	37,0
Average	dB(A)	38,5	41,0	42,5
Maximum	dB(A)	42,0	44,0	45,0
Indoor unit				
Condensate discharge diameter	mm	25,0	25,0	25,0
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,4 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

MGE_FS

		MGE250FS	MGE350FS	MGE500FS
Nominal cooling performances				
Cooling capacity	kW	2,64	3,52	4,98
Nominal heating performances				
Heating capacity	kW	2,93	3,81	5,28
Indoor unit				
Type of fan	Type	Tangential	Tangential	Tangential
Air flow rate				
Minimum	m^3/h	400	490	600
Average	m^3/h	510	580	690
Maximum	m^3/h	600	650	780
Sound power				
Minimum	dB(A)	-	-	-
Average	dB(A)	-	-	-
Maximum	dB(A)	54,0	54,0	55,0
Sound pressure				
Minimum	dB(A)	27,5	27,0	32,0
Average	dB(A)	33,5	34,0	38,0
Maximum	dB(A)	36,5	37,0	41,0
Indoor unit				
Condensate discharge diameter	mm	16,0	16,0	16,0
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure: measured in semi anechoic chamber at a distance of 1 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

MGE_DH

		MGE250DH	MGE350DH	MGE500DH	MGE700DH
Nominal cooling performances					
Cooling capacity	kW	2,64	3,52	5,28	7,03
Nominal heating performances					
Heating capacity	kW	2,93	3,81	5,57	7,62
Electric data					
Rated power input	W	88	91	172	217
Indoor unit					
Type of fan	Type	Tangential	Tangential	Tangential	Tangential
Air flow rate					
Minimum	m^3/h	450	470	650	700
Average	m^3/h	540	570	780	1000
Maximum	m^3/h	620	660	900	1200
Sound power					
Minimum	dB(A)	-	-	-	-
Average	dB(A)	-	-	-	-
Maximum	dB(A)	54,0	52,0	53,0	56,0
Sound pressure					
Minimum	dB(A)	31,0	31,0	31,0	31,0
Average	dB(A)	33,0	33,0	34,0	32,5
Maximum	dB(A)	35,0	35,0	36,5	33,5
Indoor unit					
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0
Useful static pressure					
Range of static pressure	Pa	0 ÷ 80	0 ÷ 100	0 ÷ 160	0 ÷ 160
Nominal	Pa	25	25	25	25
Power supply					
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

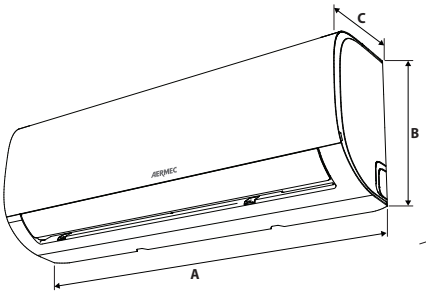
- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

ADAPTERS SUPPLIED WITH THE OUTDOOR UNIT

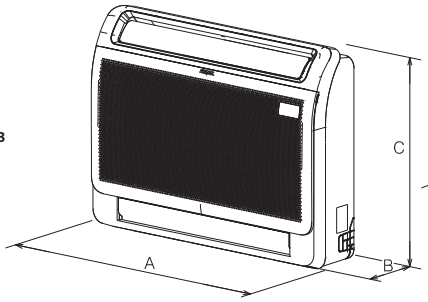
		MGE420	MGE520	MGE630	MGE830	MGE840	MGE1040	MGE1250
Adapters from 9.52mm to 12.7mm								
Number	no.	0	0	1	1	-	-	1
Adapters from 12.7mm to 9.52mm								
Number	no.	-	-	-	-	1	1	1

For further information, please refer to the technical documentation on the website www.aermec.com

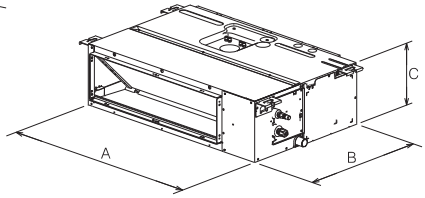
INDOOR UNIT WEIGHTS AND DIMENSIONS



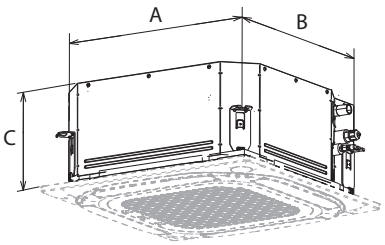
SGE_W



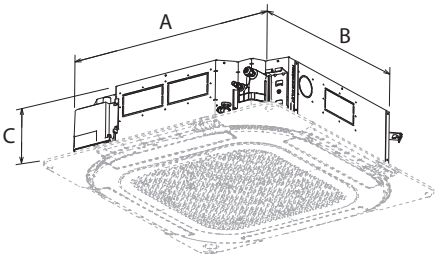
MGE_FS



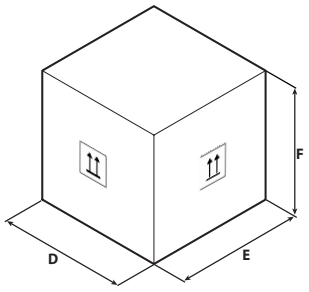
MGE_DH



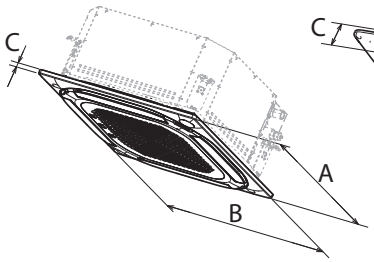
MGE350CS - MGE500CS



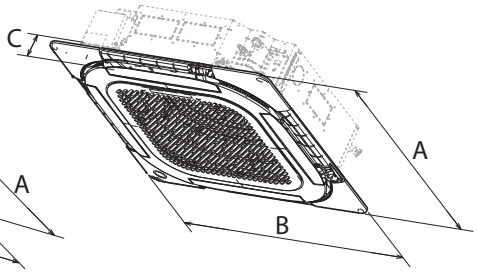
MGE700C



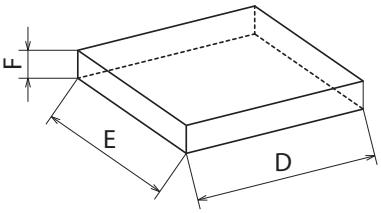
Carton Box Example



GLE10S



GLE10



SGE_W

		SGE200W	SGE250W	SGE350W	SGE500W	SGE700W
Indoor unit						
A	mm	805	805	805	957	1040
B	mm	285	285	285	302	327
C	mm	194	194	194	213	220
D	mm	870	870	870	1035	1120
E	mm	270	270	270	295	405
F	mm	360	365	365	385	315
Net weight	kg	7,9	7,6	7,6	10,0	12,3
Weight for transport	kg	9,7	9,7	9,8	13,0	15,8

MGE_FS

		MGE250FS	MGE350FS	MGE500FS
Indoor unit				
A	mm	794	794	794
B	mm	200	200	200
C	mm	621	621	621
D	mm	865	865	865
E	mm	280	280	280
F	mm	719	719	719
Net weight	kg	14,9	14,9	14,9
Weight for transport	kg	18,8	18,8	18,8

MGE_DH

		MGE250DH	MGE350DH	MGE500DH	MGE700DH
Indoor unit					
A	mm	700	700	700	1000
B	mm	506	506	750	750
C	mm	200	200	245	245
D	mm	860	860	925	1225
E	mm	540	540	850	860
F	mm	285	285	298	304
Net weight	kg	16,6	16,6	24,4	31,8
Weight for transport	kg	19,8	19,8	29,0	37,2

MGE_CS / MGE_C

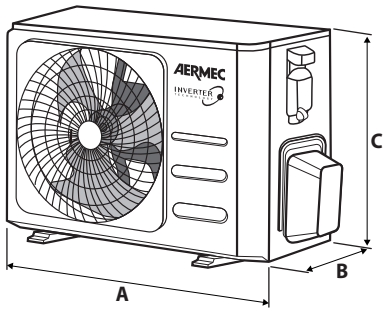
		MGE350CS	MGE500CS	MGE700C
Indoor unit				
A	mm	570	570	856
B	mm	570	570	831
C	mm	245	245	205
D	mm	715	715	910
E	mm	640	640	910
F	mm	295	295	235
Net weight	kg	16,1	16,2	21,6
Weight for transport	kg	18,8	19,0	25,4

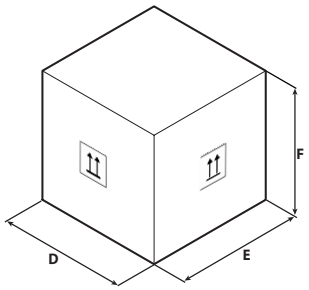
Grids

		GLE10S	GLE10
Indoor unit			
A	mm	620	950
B	mm	620	950
C	mm	50	70
D	mm	697	1042
E	mm	712	1027
F	mm	115	95
Net weight	kg	2,6	6,0
Weight for transport	kg	4,2	9,0

OUTDOOR UNIT WEIGHTS AND DIMENSIONS

MGE





Carton Box Example

		MGE420	MGE520	MGE630	MGE830	MGE840	MGE1040	MGE1250
Outdoor unit								
A	mm	877	877	1003	1003	1034	1034	1034
B	mm	349	349	380	380	432	432	432
C	mm	554	554	673	673	810	810	810
D	mm	915	915	1030	1030	1090	1090	1090
E	mm	370	370	438	438	505	505	505
F	mm	615	615	750	750	845	845	845
Net weight	kg	31,6	35,0	43,3	48,0	62,1	68,8	74,1
Weight for transport	kg	34,7	38,0	47,1	51,8	78,3	86,2	90,1

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MGEHW

Multisplit

- **R32 ecological refrigerant gas.**
- **Possibility of DHW storage tank Wi-Fi control.**
- **Possibility of AC indoor units Wi-Fi control via accessory.**
- **Achieve maximum energy savings with the new heat recovery multisplit system for domestic hot water.**



CONTO TERMICO

DESCRIPTION

MGEHW it is a multi-split unit that allows effective heat recovery for DHW production using 3 reverse cycle valves.
The multi-split outdoor units of the series MGEHW are combined with indoor units:

— MGEWT Domestic hot water **storage tank**
— SGE_W unit Wall, for wall installation.
— MGE_C_CS unit Cassette for false ceiling installation.
— MGE_FS unit Console, for wall installation.
— MGE_DH unit Duct, for duct type horizontal installation.

TYPE OF OUTDOOR UNIT

MGEHW Outdoor unit

Multisplit air conditioner.
Reversible air/air heat pump with DC inverter technology.

Types

— Can be combined with 1, 2 or 3 indoor units.
— Can be combined with 1, 2 or 3 indoor units and MGEWT domestic hot water storage tank.

General features

— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



TYPE OF INDOOR UNIT

MGEWT Indoor unit

MGEWT it is a domestic hot water storage tank intended for indoor installation with a room temperature between 5°C and 43°C.



Features

— Unit front panel with LED display and indicator lights and touch screen keyboard.
— Timer for programming switch-off and switch-on.
— WiFi function integrated in the panel.
— Anti-corrosion magnesium anode.
— Supplementary electric resistance for DHW.
— Function quick water heating for a quick heating of domestic hot water
— Auto-restart function.
— When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.
— Hybrid function allowing the electric heater and heat pump to work together in heating mode.
— Smart function that records users' hot water usage habits over the last 7 days and switches the heating on in advance based on the user's peak water usage hours.
— SG function (Smart Grid)

Indoor unit SGE_W

Wall indoor unit designed to be installed on indoor walls.
SGE_W has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.

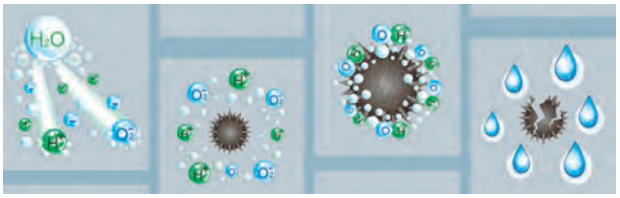




Features
- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



MGE_CS - MGE_C Indoor unit

Indoor unit **Cassette** of dimensions 570x570 mm (MGE350CS - MGE500CS) and 830x830 mm (MGE700C) designed to be installed on suspended ceiling indoors.





Features
- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- Louver angle memory function.
- **Sleep** night time function well-being program.
- Refrigerant Leak Detection System.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- **Dehumidification** function that allows humidity control

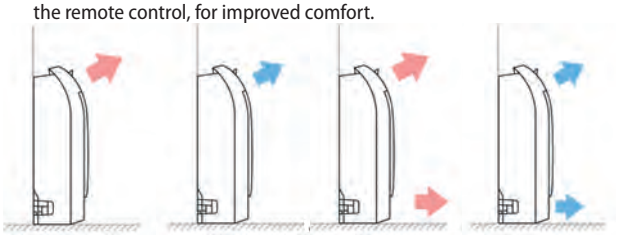
MGE_FS Indoor unit

Console indoor unit designed to be installed on indoor floors.





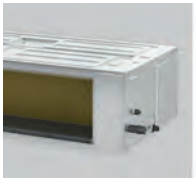
Features
- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- Louver angle memory function.
- **Sleep** night time function well-being program.
- Refrigerant Leak Detection System.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.



Single air delivery Dual air delivery

MGE_DH Indoor unit

Duct indoor unit designed for indoor duct type installation.





Features
- Remote control standard supply with each indoor unit.
- **WRPE10** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Timer for programming switch-off and switch-on.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

General features

- R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
- Easy installation and maintenance.

Low cooling function
cooling operation with outdoor temperatures down to -15 °C
Low heating function
heating with external temperatures up to -15 °C.

Nethome Plus app

The system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.

— The Wi-Fi module is supplied as per standard for the indoor unit MGEWT
— For indoor units SGE_W, MGE_C_CS, MGE_DH, MGE_FS Wi-Fi management can be supported via specific **accessory**.



ACCESSORIES

WIFIKEY: Plug & Play module to be installed in the indoor unit for Wi-Fi control.
WRPE10: Wired panel with liquid crystal display and soft-touch buttons.
WRPE10W: Flush panel with LCD display and Soft-Touch keys. It is equipped with WiFi and Bluetooth® connection for better connection stability.
GLE10S: Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit. Mandatory accessory.
GLE10: Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit. Mandatory accessory.











Accessories compatibility

SGE_W

Accessory	SGE200W	SGE250W	SGE350W	SGE500W	SGE700W
WIFIKEY	•	•	•	•	•

MGE_C / CS

Accessory	MGE350CS	MGE500CS	MGE700C
WIFIKEY	•	•	•

Accessory	MGE350CS	MGE500CS	MGE700C
WRPE10	•	•	•
WRPE10W	•	•	•

Accessory	MGE350CS	MGE500CS	MGE700C
GLE10 (1)			•
GLE10S (1)	•	•	

(1) Mandatory accessory.

MGE_DH

Accessory	MGE250DH	MGE350DH	MGE500DH	MGE700DH
WRPE10W	•	•	•	•

Wired panel WRPE10 standard supply.

MGE_FS

Accessory	MGE250FS	MGE350FS	MGE500FS
WIFIKEY	•	•	•

Accessory	MGE250FS	MGE350FS	MGE500FS
WRPE10	•	•	•
WRPE10W	•	•	•

ALLOWED COMBINATIONS OF INDOOR UNITS

Combinations MGEHW - Direct expansion indoor units

Outdoor unit	Combination	Indoor units	Combinations (x1000 Btu/h)		
			Unit A	Unit B	Unit C
MGEHW840	(1x1)	7	7	-	-
		9	9	-	-
		12	12	-	-
		18	18	-	-
	(1x2)	7+7	7	7	-
		7+9	7	9	-
		7+12	7	12	-
		7+18	7	18	
		9+9	9	9	-
		9+12	9	12	-
		9+18	9	18	-
		12+12	12	12	-
		12+18	12	18	-
	(1x3)	7+7+7	7	7	7
		7+7+9	7	7	9
		7+7+12	7	7	12
		7+7+18	7	7	18
		7+9+9	7	9	9
		7+9+12	7	9	12
		7+9+18	7	9	18
		7+12+12	7	12	12
		7+12+18	7	12	18
		9+9+9	9	9	9
		9+9+12	9	9	12
		9+12+12	9	12	12
		12+12+12	12	12	12

Combinations MGEHW - indoor units + MGEWT

Outdoor unit	Combination	Indoor units	Combinations (x1000 Btu/h)			
			Unit A	Unit B	Unit C	D.H.W.
MGEHW840	(1x1) + MGEWT190	7 + MGEWT190	7	-	-	MGEWT190
		9 + MGEWT190	9	-	-	
		12 + MGEWT190	12	-	-	
		18 + MGEWT190	18	-	-	
		24 + MGEWT190	24	-	-	
	(1x2) + MGEWT190	7+12 + MGEWT190	7	12	-	
		7+18 + MGEWT190	7	18	-	
		7+24 + MGEWT190	7	24		
		9+9 + MGEWT190	9	9	-	
		9+12 + MGEWT190	9	12	-	
		9+18 + MGEWT190	9	18	-	
		12+12 + MGEWT190	12	12	-	
		12+18 + MGEWT190	12	18	-	
	(1x3) + MGEWT190	7+7+7 + MGEWT190	7	7	7	
		7+7+9 + MGEWT190	7	7	9	
		7+7+12 + MGEWT190	7	7	12	
		7+7+18 + MGEWT190	7	7	18	
		7+9+9 + MGEWT190	7	9	9	
		7+9+12 + MGEWT190	7	9	12	
		7+9+18 + MGEWT190	7	9	18	
		7+12+12 + MGEWT190	7	12	12	
		7+12+18 + MGEWT190	7	12	18	
		9+9+9 + MGEWT190	9	9	9	
		9+9+12 + MGEWT190	9	9	12	
		9+9+18 + MGEWT190	9	9	18	
		9+12+12 + MGEWT190	9	12	12	
		9+12+18 + MGEWT190	9	12	18	
		12+12+12 + MGEWT190	12	12	12	

OUTDOOR UNIT PERFORMANCE DATA MGEHW

		MGEHW840
Nominal cooling performances		
Cooling capacity (1)	kW	7,91
Cooling input power (1)	kW	2,45
EER (2)	W/W	3,23
Minimum cooling performances		
Cooling capacity	kW	2,70
Cooling input power	kW	0,25
Maximum cooling performances		
Cooling capacity	kW	8,21
Cooling input power	kW	2,90
Seasonal efficiency		
SEER	W/W	6,30
Efficiency energy class (3)		A++
Annual power consumption	kWh/annum	439
Nominal heating performances		
Heating capacity (4)	kW	8,21
Heating input power (4)	kW	2,21
COP (2)	W/W	3,71
Minimum heating performances		
Heating capacity	kW	2,11
Heating input power	kW	0,35
Maximum heating performances		
Heating capacity	kW	8,79
Heating input power	kW	3,00
Seasonal efficiency (temperate climate)		
SCOP	W/W	4,10
Efficiency energy class (3)		A+
Annual power consumption	kWh/annum	2151

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

MGEHW - MGEWT

Indoor unit		**MGEWT190**
Outdoor unit		**MGEHW840**
Indoor unit quantity		**1**
Outdoor unit quantity		**1**
Storage tank (DHW)		
Water heating power (A 15/12°C, W 15~45°C)	kW	4,0
COP (A 15/12°C, W 15~45°C)	kW/kW	3,90
Heating capacity DHW (1)	kW	3,90
COP DHW (1)	kW/kW	3,40
Setting Temperature for the performance mesaurement (1)	°C	52
Reference hot water temperature (1)	°C	52,6
Water heating energy efficient (1)	%	128
Maximum volume of mixed water at 40°C (1)	L	240
Declared load profile (1)		L
Energy Efficiency Class (1)		A+
Heating time (1)	hh:mm	02:30
Energy input during Heat-up time (1)	kW	2,9
Standby power input (1)	W	50

(1) Data according to EN 16147:2017

OUTDOOR UNIT GENERAL TECHNICAL DATA

		MGEHW840
Electric data		
Rated power input (1)	W	5300
Rated current input (1)	A	23,5
Liquid cooling connections		
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")
Number	no.	4
Gas cooling connections (AC)		
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8") / 12,7 (1/2")
Number	no.	2/1
Gas cooling connections (DHW)		
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")
Number	no.	1
Refrigerant lines		
Total maximum length of the refrigerant lines (AC)	m	80,0
Max. lenght for DHW	m	20,0
Maximum single cooling line length	m	35,0
Maximum height difference between ODU and IDU	m	15,0
Maximum height difference between IDU and ODU	m	10,0
Maximum length of refrigerant lines without addition of refrigerant	m	7,5
Refrigerant to be added	g/m	20
Power supply		
Power supply		220-240V ~ 50Hz
Cross section		
Section of the power cable	mm^2	2,5
Power supply cable		
Magnet circuit breaker	A	25

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

MGEHW - MGEWT

Indoor unit		**MGEWT190**
Outdoor unit		**MGEHW840**
Indoor unit quantity		**1**
Outdoor unit quantity		**1**
Liquid cooling connections		
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")
Number	no.	4
Gas cooling connections (AC)		
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8") / 12,7 (1/2")
Number	no.	2/1
Gas cooling connections (DHW)		
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")
Number	no.	1
Refrigerant lines		
Max. lenght for DHW	m	20,0
Maximum height difference between ODU and WT	m	15,0
Maximum height difference between IDU and WT	m	10,0
Power supply		
Power supply		220-240V ~ 50Hz
Electric heater		
Capacity	kW	2,0
Maximum current	A	9,10
Magnet circuit breaker		
Air Break Switch (electric heater)	A	16
Cross section		
Section of the power cable	mm^2	1,5
Communication wires between the tank and the outdoor unit	mm^2	1

OUTDOOR UNIT TECHNICAL DATA

		MGEHW840
Outdoor unit		
Type of fan	Type	Axial
Air flow rate		
Maximum	m^3/h	4000
Sound power		
Maximum	dB(A)	69,0
Sound pressure		
Maximum	dB(A)	61,0
Compressor		
Type	type	Rotary
Refrigerant	type	R32
Refrigerant charge	kg	1,80
Equivalent CO_2	t	1,22
Outdoor unit		
Condensate discharge diameter	mm	16,0

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

INDOOR UNIT PERFORMANCE DATA

SGE_W

		SGE200W	SGE250W	SGE350W	SGE500W	SGE700W
Nominal cooling performances						
Cooling capacity (1)	kW	2,05	2,77	3,46	5,27	5,27
Nominal heating performances						
Heating capacity (2)	kW	2,34	2,93	3,57	4,97	4,97
Indoor unit						
Type of fan	Type	Tangential	Tangential	Tangential	Tangential	Tangential
Air flow rate						
Maximum	m^3/h	460	466	540	840	980
Average	m^3/h	360	360	430	680	817
Minimum	m^3/h	325	325	314	540	662
Sound power (3)						
Maximum	dB(A)	54,0	54,0	55,0	56,0	59,0
Sound pressure (1 m) (4)						
Minimum	dB(A)	21,0	25,0	25,0	26,0	36,0
Maximum	dB(A)	40,0	38,5	40,5	42,5	45,0
Average	dB(A)	26,0	32,0	34,5	36,0	40,5
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12.7 (1/2")	15,9 (5/8")
Power supply						
Indoor unit power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

MGEWT

		MGEWT190
Storage tank (DHW)		
Nominal volume of the tank	L	190
Rated pressure of the water tank	MPa	1
Material		Vitrified steel
Anode type		Magnesium bar
Electrical resistance type		Electric immersion heater

MGE_CS/MGE_C

		MGE350CS	MGE500CS	MGE700C
Nominal cooling performances				
Cooling capacity	kW	3,52	5,28	7,03
Nominal heating performances				
Heating capacity	kW	3,81	5,57	7,62
Indoor unit				
Type of fan	Type	Tangential	Tangential	Tangential
Air flow rate				
Minimum	m^3/h	330	300	992
Average	m^3/h	520	540	1118
Maximum	m^3/h	620	660	1247
Sound power				
Maximum	dB(A)	55,0	59,0	59,0
Sound pressure				
Minimum	dB(A)	31,5	31,5	37,0
Average	dB(A)	38,5	41,0	42,5
Maximum	dB(A)	42,0	44,0	45,0
Indoor unit				
Condensate discharge diameter	mm	25,0	25,0	25,0
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,4 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

MGE_FS

		MGE250FS	MGE350FS	MGE500FS
Nominal cooling performances				
Cooling capacity	kW	2,64	3,52	4,98
Nominal heating performances				
Heating capacity	kW	2,93	3,81	5,28
Indoor unit				
Type of fan	Type	Tangential	Tangential	Tangential
Air flow rate				
Minimum	m^3/h	400	490	600
Average	m^3/h	510	580	690
Maximum	m^3/h	600	650	780
Sound power				
Maximum	dB(A)	54,0	54,0	55,0
Sound pressure				
Minimum	dB(A)	27,5	27,0	32,0
Average	dB(A)	33,5	34,0	38,0
Maximum	dB(A)	36,5	37,0	41,0
Indoor unit				
Condensate discharge diameter	mm	16,0	16,0	16,0
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

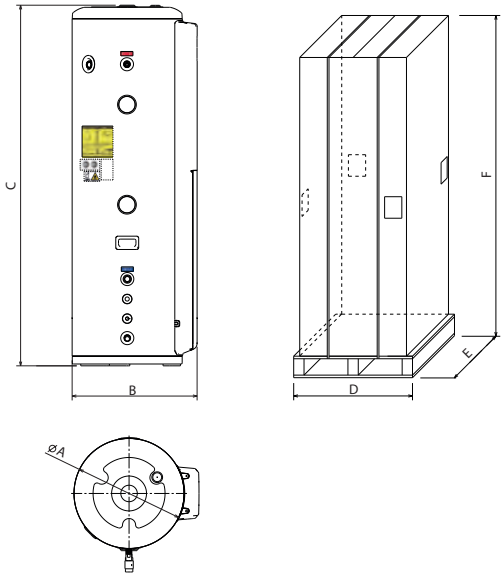
- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure: measured in semi anechoic chamber at a distance of 1 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

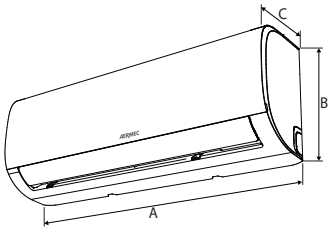
MGE_DH

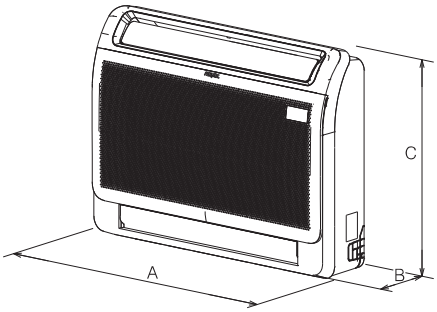
		MGE250DH	MGE350DH	MGE500DH	MGE700DH
Nominal cooling performances					
Cooling capacity	kW	2,64	3,52	5,28	7,03
Nominal heating performances					
Heating capacity	kW	2,93	3,81	5,57	7,62
Electric data					
Rated power input	W	88	91	172	217
Indoor unit					
Type of fan	Type	Tangential	Tangential	Tangential	Tangential
Air flow rate					
Minimum	m^3/h	450	470	650	700
Average	m^3/h	540	570	780	1000
Maximum	m^3/h	620	660	900	1200
Sound power					
Maximum	dB(A)	54,0	52,0	53,0	56,0
Sound pressure					
Minimum	dB(A)	31,0	31,0	31,0	31,0
Average	dB(A)	33,0	33,0	34,0	32,5
Maximum	dB(A)	35,0	35,0	36,5	33,5
Indoor unit					
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0
Useful static pressure					
Range of static pressure	Pa	0 ÷ 80	0 ÷ 100	0 ÷ 160	0 ÷ 160
Nominal	Pa	25	25	25	25
Power supply					
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

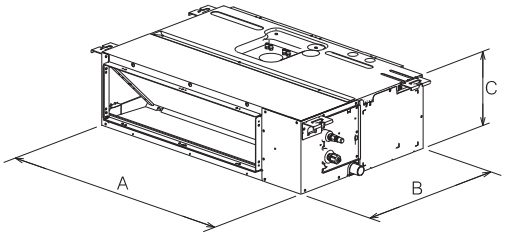
INDOOR UNIT WEIGHTS AND DIMENSIONS



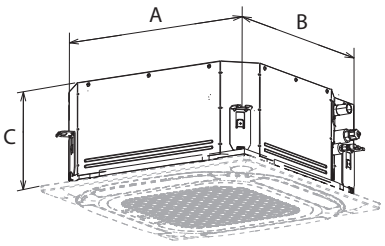




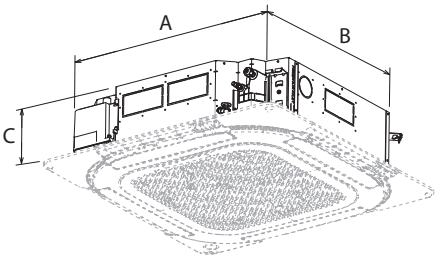
MGE_FS



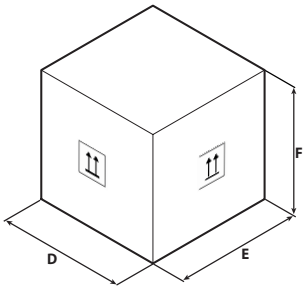
MGE_DH



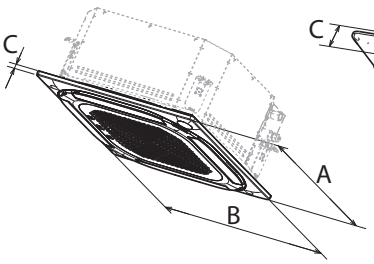
MGE350CS - MGE500CS



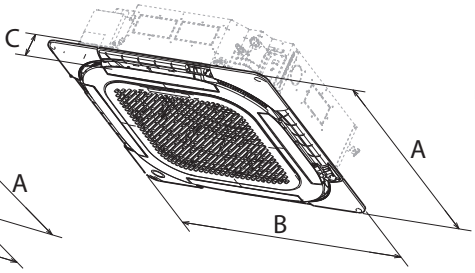
MGE700C



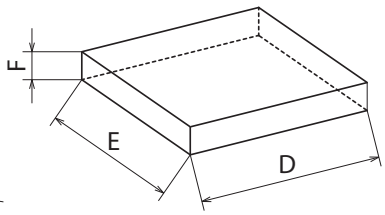
Carton Box Example



GLE10S



GLE10



MGEWT190

		MGEWT190
Indoor unit		
A	mm	504
B	mm	574
C	mm	1660
D	mm	690
E	mm	690
F	mm	1860
Net weight	kg	70,0
Weight for transport	kg	92,0

SGE_W

		SGE200W	SGE250W	SGE350W	SGE500W	SGE700W
Indoor unit						
A	mm	805	805	805	957	1040
B	mm	285	285	285	302	327
C	mm	194	194	194	213	220
D	mm	870	870	870	1035	1120
E	mm	270	270	270	295	405
F	mm	360	365	365	385	315
Net weight	kg	7,9	7,6	7,6	10,0	12,3
Weight for transport	kg	9,7	9,7	9,8	13,0	15,8

MGE_FS

		MGE250FS	MGE350FS	MGE500FS
Indoor unit				
A	mm	794	794	794
B	mm	200	200	200
C	mm	621	621	621
D	mm	865	865	865
E	mm	280	280	280
F	mm	719	719	719
Net weight	kg	14,9	14,9	14,9
Weight for transport	kg	18,8	18,8	18,8

MGE_DH

		MGE250DH	MGE350DH	MGE500DH	MGE700DH
Indoor unit					
A	mm	700	700	700	1000
B	mm	506	506	750	750
C	mm	200	200	245	245
D	mm	860	860	925	1225
E	mm	540	540	850	860
F	mm	285	285	298	304
Net weight	kg	16,6	16,6	24,4	31,8
Weight for transport	kg	19,8	19,8	29,0	37,2

MGE_CS / MGE_C

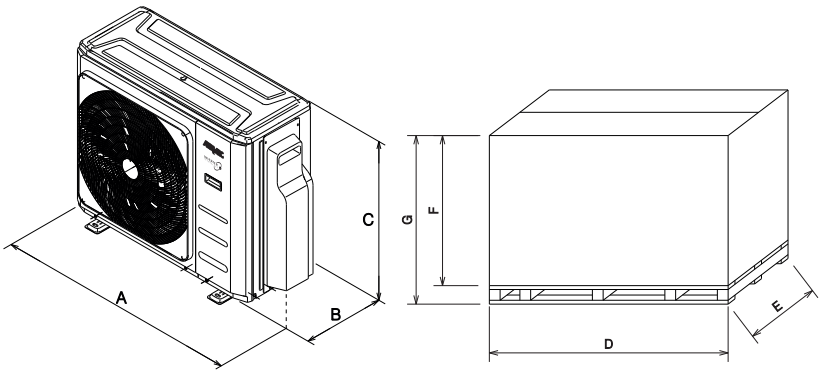
		MGE350CS	MGE500CS	MGE700C
Indoor unit				
A	mm	570	570	856
B	mm	570	570	831
C	mm	245	245	205
D	mm	715	715	910
E	mm	640	640	910
F	mm	295	295	235
Net weight	kg	16,1	16,2	21,6
Weight for transport	kg	18,8	19,0	25,4

Grids

		GLE10	GLE10S
Indoor unit			
A	mm	950	620
B	mm	950	620
C	mm	70	50
D	mm	1042	697
E	mm	1027	712
F	mm	95	115
Net weight	kg	6,0	2,6
Weight for transport	kg	9,0	4,2

OUTDOOR UNIT WEIGHTS AND DIMENSIONS

MGEHW



		MGEHW840
Outdoor unit		
A	mm	1050
B	mm	433
C	mm	810
D	mm	1090
E	mm	500
F	mm	845
G	mm	935
Net weight	kg	64,3
Weight for transport	kg	79,1

Aermec reserves the right to make any modiÿcations deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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