











MVA

Direct expansion variable refrigerant flow system VRF

Cooling capacity 12,1 ÷ 246,0 kW Heating capacity 14,0 ÷ 276,0 kW



- Units prepared for installations with two or three pipes.
- The correct balance between cost, efficiency and space.
- Wide choice of indoor units available.
- Up to 80 connectible indoor units.



DESCRIPTION

The VRF air conditioners from the MVA range are combined with indoor units:

- MVA_WL Wall.
- MVA_D Horizontal duct.
- MVA_DH Horizontal duct, high head.
- MVA_DV Vertical duct.
- MVA_CS and MVA_C 8-way cassette .
- MVA_CB 4-way cassette.
- MVA_C1 **1-way cassette** .
- MVA_F Floor ceiling.
- MVA_FS Console.
- MVA_V Column.

TYPE OF INDOOR UNIT

MVA WL

Wall indoor unit designed to be installed on indoor walls.

- Modern design to blend with all furnishing styles.
- Distributed air jet: air outlet fins with horizontal and vertical adjustment facility.
- Anti-freeze function that allows a minimum temperature of 8 °C to be maintained in the environment during the winter period.

MVA_D

Duct indoor unit designed for indoor duct type installation.

MVA_D - Horizontal duct.

- Wired panel standard supply.
- Low noise levels.
- Easy installation in small assembly spaces, thanks to the limited dimensions.
- Useful static pressure up to 80 Pa.

MVA_DH

Duct indoor unit designed for indoor duct type installation.

MVA_DH - Horizontal duct, high head.

- Wired panel standard supply.
- Unit without cover, designed for duct type horizontal installation.
- Useful static pressure up to 200 Pa.

MVA DV

Duct indoor unit designed for indoor vertical installation.

MVA_DV - Vertical duct.

- Wired panel standard supply.
- Unit without cover, designed for installation in wall recesses.
- Useful static pressure up to 60 Pa.

MVA CS/MVA C

8-way cassette indoor unit designed to be installed on false ceilings indoors.

MVA_CS - Cassette 570x570.

Mandatory accessory GLG40S.

MVA_C - Cassette 840x840.

- Mandatory accessory GLG40.
- Wired panel standard supply.Condensate discharge pump as standard.
- Guarantees even air distribution, for optimum comfort.

MVA_CB

4-way cassette indoor unit designed to be installed on false ceilings indoors.

MVA_CB - Cassette 910x910.

Mandatory accessory GL40B.

- Wired panel standard supply.
- Condensate discharge pump as standard.
- Guarantees even air distribution, for optimum comfort.

MVA_C1

1-way cassette indoor unit designed to be installed on false ceilings indoors.

MVA_C1 - Cassette 987x385.

- Mandatory accessory GLC1.
- Wired panel standard supply.
- Condensate discharge pump as standard.
- Compact size and minimum dimensions.

MVA F

Floor ceiling indoor unit to be installed on walls or ceiling.

- Low noise levels.
- Anti-freeze function.
- Flexible installation for any environment.

MVA FS

Console indoor unit designed to be installed on the floor.

- Anti-freeze function.
- 5-speed fan, to meet every possible need.
- Two delivery vents for optimal control of the air flow.

MVA V

Column indoor unit designed to be installed in large sized rooms.

- Easy installation and maintenance.
- Speed in reaching the defined set point in the shortest time possible.
- Ideal for installations in the service sector: hotels, restaurants, offices.

TRS1001DX



Heat recovery unit 1000 mc/h with counter-current flows and direct expansion coil. Designed and built to recover both sensible and latent heat, and to provide heating or cooling capacity indoors. To complete the system, the use of the WRC1 (standard supply) wired panel is mandatory.

General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Total capacity connected to the outdoor units between 50% and 135% of the rated capacity of the selected configuration.
- Indoor unit fitted standard with an electronic expansion valve.
- **WRC** wired panel standard supply with each indoor unit.
- Every indoor unit comes with a remote control and a remote control holder.
- Automatic unit adjustment function.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Easy installation and maintenance.

TYPE OF OUTDOOR UNIT

MVA S

 $Standard\ multisplit\ VRF\ air\ conditioners.$

Reversible air/air heat pump with DC inverter technology.

- From 1 to 16 connectible indoor units.
- Total maximum length of the refrigerant lines up to 300 m.
- The sizes MVAS1201S MVAS1401S MVAS1601S and MVAS1201T MVAS1401T MVAS1601T, are fitted with a base electric resistor to avoid possible formation of ice and encourage the disposal of the condensate during the heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

MVA M

Module multisplit VRF ambient air conditioner for 2-pipe systems. Reversible air/air heat pump with DC inverter technology.

- From 1 to 80 connectible indoor units.
- Total maximum length of the refrigerant lines up to 1000 m.
- Modular system with base modules that can be combined together, up to a maximum of 4, for a total of 33 recommended combinations.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.
- Optimised management of the compressor operating time with partial loads.
- Emergency operation, in the event of problems with the compressors or fans, allows operation of the system with a reduced number of compressors and/or fans for a limited time.
- Channelled air delivery from 0 Pa (default) to 82 Pa of effective static head set via dip switches.
- For cooling line connections, refer to refnet joints in the accessories section.

MVA MHR

Module multisplit VRF ambient air conditioner for 3-pipe systems. Reversible air/air heat pump with DC inverter technology.

- From 1 to 80 connectible indoor units.
- Total maximum length of the refrigerant lines up to 1000 m.
- Modular system with base modules that can be combined together, up to a maximum of 4, for a total of 24 recommended combinations.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.
- A system that permits managing the heating and cooling modes in an independent and simultaneous manner.
- Possibility of managing hot or cold modes independently and simultaneously. MVA_MHR 3-pipe outdoor units must be interfaced with two dual pipe MVA series Indoor units using the exchange module (MEB) available with one, two, four or eight branches.
- MEB: mandatory accessory for 3-pipe systems.

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.
- Refrigerant connections with braze welded Y and F joints (mandatory accessories).
- Compressor and fan with DC inverter technology.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Easy installation and maintenance.
- Serial communication in CanBus protocol.

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. *

MVASZC: Simplified centralised control (4,3" touch screen display), which can be used to manage up to 32 Indoor Units distributed across a maximum of 16 Systems.

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.

* The CC2 centralised control can manage up to 255 indoor units distributed over a maximum of 16 MVA systems.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

AHUKIT: Kit comprised of a box that contains the thermal expansion valve(s) complete with wiring and their control module, with pre-wired probes, a wall-mounted control panel with external contact. The kit is intended to be combined with the direct expansion cooling and/or heating coil (using R410A) of an air treatment unit. The latter is not supplied as an MVA component, but is functionally connected to an MVA

system and is suitably sized. AHUKIT, and the and the air treatment unit connected to it, treat the recirculated and/or fresh air that falls within the operating limits, regulating the recirculation/expulsion air temperature

BACNETGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 255 indoor units), with a Bacnet serial for supervision with an external BMS.

MINIMODBUS10: Thanks to its smaller size, this accessory can be easily installed in the outdoor unit. It allows you to manage up to 16 MVA systems (with a maximum of 255 indoor units), with a ModBus RTU serial on RSA485 for supervision with an external BMS.

MODBUSGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 128 indoor units), with a ModBus RTU serial on RS485 for supervision with an external BMS.

MODBUSGW10: This accessory allows you to manage up to 16 MVA systems (with a maximum of 128 indoor units), with a ModBus RTU serial on RS485 for supervision with an external BMS.

USBDC: 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 MVA ranges.

Accessories mandatory

Air delivery and recovery grille for indoor Cassette type units.

Grille model		Indoor u	nit model		— 8 WAY	4 WAY	1 WAY	Dimensions	Weight
	MVA_CS	MVA_C	MVA_CB	MVA_C1	8 WAY	4 WAT		LxHxW (mm)	Kg
GLG40S	•	-	-	-		-	-	620x620x47,5	3,0
GLG40	-	•	-	-	•	-	-	950x950x52	6,0
GL40B	-	-	•	-	-	•	-	1040x1040x65	8,0
GLC1	-	-	-	•	-	-		1200x460x55	4,2

Joints refnet

Connection between modular outdoor units.

The modules are easy to install and link together from the cooling point of view, thanks to the connections with dedicated refnet joints. Modularity is the fundamental characteristic of these systems as it also allows high-capacity systems to be created in a quick, simple way.

Y-joints for cooling connection between 2 Outdoor Units in Modular Systems. A modular system made up of n. base modules requires n-1 Y-joints.

Mandatory accessory for modular systems.

MVAM 2-pipe system	MVAMHR 3-pipe system	MVAM 2-pipe system	MVAMHR 3-pipe system	
Outdoor unit	Outdoor unit	Indoor units	Indoor unit - MEB	
DNVMO1	RNYMHR10	DMV11	DNIV11	
RNYM01	RNYMHR20	RNY11	RNY11	
AHUKIT	Outdoor units - MEB	RNY12	RNY12	
RNYAHU	RNYHR10	RNY21		
	RNYHR20	RNY31		
	RNYHR30	RNY41		
	RNYHR40	RNF14		
	RNYHR50	RNF18		
	RNYHR60	RNF18B		
	RNYHR70			

MVA_M 2-pipe system

RNYM01

Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

MVA_HR 3-pipe system

RNYMHR

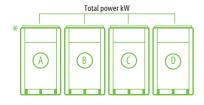
Accessory comprising 3 Y-joints - one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

Code	Type	Connection between modular outdoor units Sum of powers (kW)		
		<u> </u>	≤	
RNYMHR10	Υ	50,40	96,00	
RNYMHR20	Υ	96.00	_	

REFNET

No. of kits needed:

Total Modules (A+B+C+D)* No.	Sum of powers (kW)	REFNET	No. of kits needed
1	50,40 <	-	-
2	≥ 50,40 - 96,00 ≤	RNYMHR10	1
3	≥ 50,40 - 96,00 ≤	RNYMHR10	2
3	> 96,00	RNYMHR20	2
4	> 96,00	RNYMHR20	3



Connection between modular outdoor units and MEB - Exchange module

RNYHR

Accessory for connecting outdoor units with the MEB exchange module. Comprises three Y-joints one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

Code	Type	Connection between modular outdoor u Sum of powers (kW)		
		≥	≤	
RNYHR10	Υ	-	5,00	
RNYHR20	Υ	5,00	22,40	
RNYHR30	Υ	22,40	28,00	
RNYHR40	Υ	28,00	68,00	
RNYHR50	Υ	68,00	96,00	
RNYHR60	Υ	96,00	135,00	
RNYHR70	Υ	135,00	-	

MEB

Exchange module with one, two, four or eight branches (each single branch can manage heating or cooling mode independently of the others, but simultaneously) for interfacing MVA_M and MVAMHR 3-pipe outdoor units with the MVA 2-pipe indoor units.

Code	Maximum manage Branches cooling capacity "per single branc		Total power managed by the MEB	Connectible indoor units	
	no.	(kW)	(kW)	Max. no.	
MEB11	1	14,20	-	6	
MEB21	2	14,20	-	6	
MEB41	4	14,20	45,00 ≤	6	
MEB81	8	14,20	68,00 ≤	6	

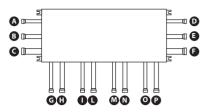
In order to connect indoor units with a capacity higher than 14kW, two branches must be used that are joined into one using suitable dip-switch settings on the distribution box.

Connection between indoor units

RNY

Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

MEB exchange module



Refrigerant connection	Description	
A	Liquid (left side)	
В	Gas high pressure (left side)	
(Gas low pressure (left side)	
D	Liquid (right side)	
E	Gas high pressure (right side)	
F	Gas low pressure (right side)	
G	Liquid (branch 1)	
Н	Gas (branch 1)	
I	Liquid (branch 2)	
L	Gas (branch 2)	
M	Liquid (branch 3)	
N	Gas (branch 3)	
0	Liquid (branch 4)	
P	Gas (branch 4)	

RNF

Accessory made up of two F-joints, one for the liquid line and one for the discharge line.

Code	System type		Type of joint	Total power downline (kW)		Maximum 1-way connectible power	Connectible indoor units
	2-pipe	3-pipe		>	۰	~kW)	No.
RNY11	•	•	Υ	-	20,00	-	-
RNY12	•	•	Υ	20,00	30,00	-	-
RNY21	•		Υ	30,00	70,00	-	-
RNY31	•		Υ	70,00	135,00	-	-
RNY41	•		Υ	135,00	-	-	-
RNF14	•		F	-	40,00	16,00	from 2 to 4
RNF18	•		F	-	68,00	16,00	from 4 to 8
RNF18B	•		F	68,00	-	16,00	from 4 to 8

ADVANTAGES FOR VRF SYSTEMS: MVA

Compact design

Thanks to the reduced dimensions and compact design of these units, they are easy to move at the job site. All the models can in fact be transported easily right up to the roof, even using a lift.



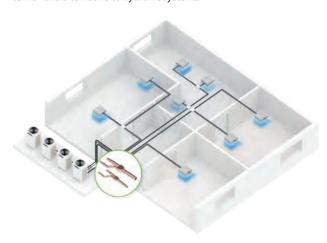
VRF systems - 2-pipe heat pump

Customise your VRF system

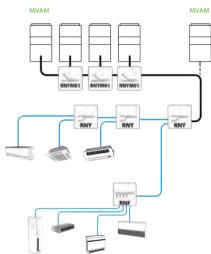
To guarantee greater seasonal efficiency and maximum comfort with the variable refrigerant function.

Continuous comfort

Continuous heating or cooling of the rooms is what makes the VRF system a valid alternative to hydronic systems.



Example of a 2-pipe system



When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n base modules requires n-1 Y-joints.

MVAS - MVAM

- 2-pipe system.
- Cooling or heating mode. (The image shows an example of a system in cooling mode)
- Maximum total length of cooling lines MVAS:

— MVAS: 300 m— MVAM: 1000 m

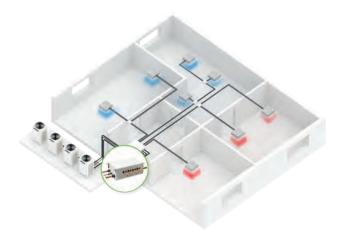
VRF systems - 3-pipe heat pump

The MVAMHR VRF heat recovery system heats and cools at the same time with one single circuit

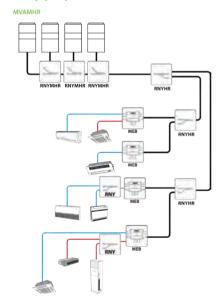
MVAMHR recovers the heat produced during cooling and uses it to heat certain rooms cost-free, maximising energy efficiency and reducing energy costs.

Continuous comfort

Simultaneous heating and cooling of the rooms is what makes the VRF system a valid alternative to hydronic systems.



Example of a 3-pipe system



When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n base modules requires n-1 Y-joints.

MVAMHR

- 3-pipe system.
- Simultaneous cold and hot operation.
- Total maximum length of the refrigerant lines:
- **MVAMHR**: 1000 m

CONFIGURATIONS

MVA_S combinations

MVA_S connectable units

MVAS	Nominal cooling capacity (kW)	Min. no. of indoor units	Max. no. of indoor units
12015	12,10	2	7
14015	14,00	2	8
16015	16,00	2	9
1201T	12,10	2	7
1401T	14,00	2	8
1601T	16,00	2	9
2242T	22,40	1	13
2802T	28,00	1	17
3351T	33,50	2	20

MVA_S outdoor unit with single duct type indoor unit

MVA_S	Nominal cooling capacity (kW)	No. indoor units	Compatible indoor unit
2242T	22,40	1	MVA2240DH
2802T	28.00	1	MVA2800DH

MVA_M combinations MVAM permitted configurations

	Nominal cooling capacity		MVA_M co	mbination			indoor units	
			Mod	dule		Number		
	~kW)	~A)	~B)	~C)	~D)	MINIMUM (1)	MAXIMUM (2)	
	22,40	2241T	-	-	-	1	13	
Base Module	28,00	2801T	-	-	-	1	16	
	33,50	3351T	-	-	-	1	19	
	40,00	4001T	-	-	-	1	23	
Dase Module	45,00	4501T	-	-	-	1	26	
	50,40	5041T	-	-	-	1	29	
	56,00	5601T	-	-	-	1	33	
	61,50	6151T	-	-	-	2	36	
	68,00	2801T	4001T	-	-	2	39	
	73,00	2801T	4501T	-	-	2	43	
	78,40	2801T	5041T	-	-	2	46	
	84,00	2801T	5601T	-	-	2	50	
	89,50	2801T	6151T	-	-	2	53	
	95,00	3351T	6151T	-	-	2	56	
	101,50	4001T	6151T	-	-	2	59	
	106,50	4501T	6151T	-	-	2	63	
	111,90	5041T	6151T	-	-	3	64	
	117,50	5601T	6151T	-	-	3	64	
	123,00	6151T	6151T	-	-	3	64	
	129,00	2801T	4501T	5601T	-	3	64	
	134,50	2801T	4501T	6151T	-	3	64	
	140,00	3351T	4501T	6151T	-	3	66	
	145,50	2801T	5601T	6151T	-	3	69	
	151,00	2801T	6151T	6151T	-	3	71	
Combinations	156,50	3351T	6151T	6151T	-	3	74	
	163,00	4001T	6151T	6151T	-	3	77	
	168,00	4501T	6151T	6151T	-	4	80	
	173,40	5041T	6151T	6151T	-	4	80	
	179,00	5601T	6151T	6151T	-	4	80	
	184,50	6151T	6151T	6151T	-	4	80	
	190,50	2801T	4501T	5601T	6151T	4	80	
	195,90	2801T	5041T	5601T	6151T	4	80	
	201,50	2801T	5601T	5601T	6151T	4	80	
	207,00	2801T	5601T	6151T	6151T	4	80	
	212,50	2801T	6151T	6151T	6151T	4	80	
	218,00	3351T	6151T	6151T	6151T	4	80	
	224,50	4001T	6151T	6151T	6151T	5	80	
	229,50	4501T	6151T	6151T	6151T	5	80	
	234,90	5041T	6151T	6151T	6151T	5	80	
	240,50	5601T	6151T	6151T	6151T	5	80	
	246,00	6151T	6151T	6151T	6151T	5	80	

MVA_M permitted configurations

Nominal cooling capacity —		MVA_M co				indoor units	
Nominal Cooling Capacity		Mod	lule		Number		
~kW)	~A)	"B)	~C)	~D)	MINIMUM (1)	MAXIMUM (2)	
50,40	2241T	2801T	-	=	1	29	
56,00	2801T	2801T	-	-	1	33	
61,50	2801T	3351T	-	=	2	36	
78,50	3351T	4501T	-	-	2	46	
85,00	4001T	4501T	-	-	2	50	
90,00	4501T	4501T	-	- -	2	53	
96,00	2801T	2801T	4001T	-	2	56	
101,00	2801T	2801T	4501T	=	2	59	
106,50	2801T	3351T	4501T	-	3	63	
113,00	2801T	4001T	4501T	-	3	64	
118,00	2801T	4501T	4501T	- -	3	64	
123,50	3351T	4501T	4501T	-	3	64	
130,00	4001T	4501T	4501T	=	3	64	
135,00	4501T	4501T	4501T	=	3	64	
141,00	2801T	2801T	4001T	4501T	3	66	
146,00	2801T	2801T	4501T	4501T	3	69	
151,50	2801T	3351T	4501T	4501T	3	71	
158,00	2801T	4001T	4501T	4501T	3	74	
163,00	2801T	4501T	4501T	4501T	3	77	
168,50	3351T	4501T	4501T	4501T	4	80	
175,00	4001T	4501T	4501T	4501T	4	80	
180,00	4501T	4501T	4501T	4501T	4	80	

MVA_MHR recommended configurations

	Nominal cooling capacity		MVA_MHR o	ombination		Connectible	indoor units
	Nominal Cooling Capacity		Mod	dule		Nun	nber
	~kW)	~A)	~B)	~()	~D)	MINIMUM (1)	MAXIMUM (2)
	22,40	2241T	-	-	-	1	13
	28,00	2801T	-	-	-	1	16
Base Module	33,50	3351T	-	-	-	1	19
	40,00	4001T	-	-	-	1	23
	45,00	4501T	-	-	-	1	26
	50,40	2241T	2801T	-	-	1	29
	56,00	2801T	2801T	-	-	1	33
	61,50	2801T	3351T	-	-	2	36
	68,00	2801T	4001T	-	-	2	39
	73,00	2801T	4501T	-	-	2	43
	78,50	3351T	4501T	-	-	2	46
	85,00	4001T	4501T	-	-	2	50
	90,00	4501T	4501T	-	-	2	53
	96,00	2801T	2801T	4001T	-	2	56
	101,00	2801T	2801T	4501T	-	2	59
	106,50	2801T	3351T	4501T	-	3	63
Combinations	113,00	2801T	4001T	4501T	-	3	64
compinations	118,00	2801T	4501T	4501T	-	3	64
	123,50	3351T	4501T	4501T	-	3	64
	130,00	4001T	4501T	4501T	-	3	64
	135,00	4501T	4501T	4501T	-	3	64
	141,00	2801T	2801T	4001T	4501T	3	66
	146,00	2801T	2801T	4501T	4501T	3	69
	151,50	2801T	3351T	4501T	4501T	3	71
	158,00	2801T	4001T	4501T	4501T	3	74
	163,00	2801T	4501T	4501T	4501T	3	77
	168,50	3351T	4501T	4501T	4501T	4	80
	175,00	4001T	4501T	4501T	4501T	4	80
	180,00	4501T	4501T	4501T	4501T	4	80

The sum of powers for indoor units may never be less than 50% of the rated cooling capacity of the outdoor unit (or the sum of units) selected. The sum of powers for indoor units may never be more than 135% of the rated cooling capacity of the outdoor unit (or the sum of units) selected.

INDOOR UNIT PERFORMANCE DATA

MVA_WL

		MVA220WL	MVA280WL	MVA360WL	MVA450WL	MVA500WL	MVA560WL	MVA630WL	MVA710WL
Nominal cooling performances									
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00	5,60	6,30	7,10
Nominal heating performances									
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,60	6,30	7,10	7,50
Electric data									
Rated power input (3)	W	20	20	25	35	35	50	50	65
Fan									
Туре	type				Inverter t	angential			
Air ow rate									
Minimum	m³/h	300	300	320	500	501	650	650	650
Average	m³/h	440	440	460	580	580	850	850	850
Maximum	m³/h	500	500	630	850	850	1100	1100	1200
Sound power									
Minimum	dB(A)	40,0	41,0	41,0	47,0	47,0	47,0	48,0	47,0
Average	dB(A)	43,0	43,0	45,0	50,0	50,0	51,0	51,0	51,0
Maximum	dB(A)	45,0	45,0	48,0	53,0	53,0	53,0	53,0	54,0
Sound pressure (4)									
Minimum	dB(A)	30,0	30,0	31,0	37,0	37,0	37,0	37,0	37,0
Average	dB(A)	33,0	33,0	35,0	40,0	40,0	41,0	41,0	41,0
Maximum	dB(A)	35,0	35,0	38,0	43,0	43,0	43,0	43,0	44,0
Refrigeration pipework									
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")				9,52 (3/8")	
Diameter of refrigerant gas connections	mm (inch)	9,52	(3/8")		12,7 (1/2")			15,9 (5/8")	
Power supply									
Indoor unit power supply					220-240	V ~ 50Hz			
Indoor unit									
Condensate discharge diameter	mm	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA D

MVA_D										
		MVA221D	MVA251D	MVA281D	MVA321D	MVA361D	MVA401D	MVA451D	MVA501D	MVA561D
Nominal cooling performances										
Cooling capacity (1)	kW	2,20	2,50	2,80	3,20	3,60	4,00	4,50	5,00	5,60
Nominal heating performances										
Heating capacity (2)	kW	2,50	2,80	3,20	3,60	4,00	4,50	5,00	5,60	6,30
Electric data										
Rated power input (3)	W	78	78	78	78	78	78	78	117	117
Fan										
Туре	type					Inverter centrifug	al			
Air , ow rate										
Minimum	m³/h	200	200	200	300	300	400	400	550	550
Average	m³/h	350	350	350	400	400	550	550	700	700
Maximum	m³/h	450	450	450	550	550	750	750	850	850
High static pressure										
Nominal	Pa	15	15	15	15	15	15	15	15	15
Minimum	Pa	0	0	0	0	0	0	0	0	0
Maximum	Pa	30	30	30	30	30	30	30	30	30
Sound power										
Minimum	dB(A)	32,0	32,0	32,0	35,0	35,0	37,0	37,0	39,0	39,0
Average	dB(A)	35,0	35,0	35,0	37,0	37,0	39,0	39,0	41,0	41,0
Maximum	dB(A)	40,0	40,0	40,0	41,0	41,0	43,0	43,0	45,0	45,0
Sound pressure (4)										
Minimum	dB(A)	22,0	22,0	22,0	25,0	25,0	27,0	27,0	29,0	29,0
Average	dB(A)	25,0	25,0	25,0	27,0	27,0	29,0	29,0	31,0	31,0
Maximum	dB(A)	30,0	30,0	30,0	31,0	31,0	33,0	33,0	35,0	35,0
Refrigeration pipework										
Diameter of liquid refrigerant connections	mm (inch)				6,35	(1/4")				9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)		9,52 (3/8")				12,7 (1/2")			15,9 (5/8")
Power supply										
Indoor unit power supply						220-240V ~ 50H	<u>'</u>			
Indoor unit										
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

		MVA631D	MVA711D	MVA801D	MVA901D	MVA1001D	MVA1121D	MVA1251D	MVA1401D
Nominal cooling performances	'								
Cooling capacity (1)	kW	6,30	7,10	8,00	9,00	10,00	11,20	12,50	14,00
Nominal heating performances									
Heating capacity (2)	kW	7,10	8,00	9,00	10,00	11,20	12,50	14,00	16,00
Electric data									
Rated power input (3)	W	117	154	110	130	130	130	170	170
Fan									
Туре	type				Inverter	entrifugal			
Air ow rate									
Minimum	m³/h	550	650	900	900	1000	1100	1400	1400
Average	m³/h	700	850	1100	1250	1350	1500	1700	1700
Maximum	m³/h	850	1100	1250	1500	1500	1700	2000	2000
High static pressure									
Nominal	Pa	15	15	50	50	50	50	50	50
Minimum	Pa	0	0	0	0	0	0	0	0
Maximum	Pa	30	50	80	80	80	80	80	80
Sound power									
Minimum	dB(A)	39,0	40,0	46,0	47,0	47,0	47,0	52,0	52,0
Average	dB(A)	41,0	42,0	49,0	51,0	51,0	51,0	55,0	55,0
Maximum	dB(A)	45,0	47,0	52,0	55,0	55,0	55,0	57,0	57,0
Sound pressure (4)									
Minimum	dB(A)	29,0	30,0	31,0	32,0	32,0	32,0	37,0	37,0
Average	dB(A)	31,0	32,0	34,0	36,0	36,0	36,0	40,0	40,0
Maximum	dB(A)	35,0	37,0	37,0	40,0	40,0	40,0	42,0	42,0
Refrigeration pipework									
Diameter of liquid refrigerant connections	mm (inch)				9,52	(3/8")			
Diameter of refrigerant gas connections	mm (inch)				15,9	(5/8")			
Power supply									
Indoor unit power supply					220-240	V ~ 50Hz			
Indoor unit	-								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA DH

		MVA221DH	MVA251DH	MVA281DH	MVA321DH	MVA361DH	MVA401DH
Nominal cooling performances							
Cooling capacity (1)	kW	2,20	2,50	2,80	3,20	3,60	4,00
Nominal heating performances		,	,	,	,	,	·
Heating capacity (2)	kW	2,50	2,80	3,20	3,60	4,00	4,50
Electric data							
Rated power input (3)	W	55	55	55	65	65	85
Fan							
Туре	type			Inverter c	entrifugal		
Air ့ ow rate							
Minimum	m³/h	400	400	400	420	420	600
Average	m³/h	480	480	480	500	500	700
Maximum	m³/h	550	550	550	600	600	850
High static pressure							
Nominal	Pa	60	60	60	60	60	60
Minimum	Pa	0	0	0	0	0	0
Maximum	Pa	150	150	150	150	150	150
Sound power							
Minimum	dB(A)	41,0	41,0	41,0	42,0	42,0	44,0
Average	dB(A)	43,0	43,0	43,0	44,0	44,0	47,0
Maximum	dB(A)	45,0	45,0	45,0	46,0	46,0	50,0
Sound pressure (4)							
Minimum	dB(A)	31,0	31,0	31,0	32,0	32,0	34,0
Average	dB(A)	33,0	33,0	33,0	34,0	34,0	37,0
Maximum	dB(A)	35,0	35,0	35,0	36,0	36,0	40,0
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)			6,35	(1/4")		
Diameter of refrigerant gas connections	mm (inch)		9,52 (3/8")			12,7 (1/2")	
Power supply							
Indoor unit power supply				220-240	V ~ 50Hz		
Indoor unit							
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0

		MVA451DH	MVA501DH	MVA561DH	MVA631DH	MVA711DH	MVA801DH
ominal cooling performances							
ooling capacity (1)	kW	4,50	5,00	5,60	6,30	7,10	8,00
lominal heating performances							
eating capacity (2)	kW	5,00	5,60	6,30	7,10	8,00	9,00
lectric data							
lated power input (3)	W	85	85	90	90	100	100
an							
ype	type			Inverter o	entrifugal		
ir ę ow rate							
Minimum	m³/h	600	600	700	700	950	950
verage	m³/h	700	700	800	800	1050	1050
laximum	m³/h	850	850	1000	1000	1250	1250
igh static pressure							
ominal	Pa	60	60	90	90	90	90
linimum	Pa	0	0	0	0	0	0
aximum	Pa	150	150	200	200	200	200
ound power							
inimum	dB(A)	44,0	44,0	45,0	45,0	45,0	45,0
verage	dB(A)	47,0	47,0	48,0	48,0	49,0	49,0
aximum	dB(A)	50,0	50,0	52,0	52,0	53,0	53,0
ound pressure (4)							
inimum	dB(A)	34,0	34,0	35,0	35,0	35,0	35,0
verage	dB(A)	37,0	37,0	38,0	38,0	39,0	39,0
aximum	dB(A)	40,0	40,0	42,0	42,0	43,0	43,0
efrigeration pipework							
ameter of liquid refrigerant connections	mm (inch)	6,35	(1/4")		9,52 (3/8")	
iameter of refrigerant gas connections	mm (inch)	12,7	(1/2")		15,9 (5/8")	
ower supply							
door unit power supply				220-240\	/ ~ 50Hz		
ndoor unit							
ondensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0
		MVA901DH	MVA1001DH	MVA1121DH	MVA1251DH	MVA1401DH	MVA1601DI
ominal cooling performances		MIVAZOTOTI	MINATOOTOTI	MVATIZIDII	MVAIZJIDII	MINITOIDII	MINTOVIDI
poling capacity (1)	kW	9,00	10,00	11,20	12,50	14,00	16,00
		7,00	10,00	11,20	12,50	11,00	10,00
3 1 7 1 2							
ominal heating performances	kW	10.00	11 70	12 50	14.00	16.00	18.00
ominal heating performances eating capacity (2)	kW	10,00	11,20	12,50	14,00	16,00	18,00
ominal heating performances eating capacity (2) lectric data				,			,
ominal heating performances eating capacity (2) lectric data ated power input (3)	kW W	10,00	11,20 140	12,50 160	14,00 160	16,00	18,00 230
ominal heating performances eating capacity (2) lectric data ated power input (3)	W			160	160		,
ominal heating performances eating capacity (2) lectric data ated power input (3) an				,	160		,
ominal heating performances eating capacity (2) lectric data ated power input (3) an type ir_ow rate	W type	140	140	160 Inverter o	160 entrifugal	220	230
ominal heating performances eating capacity (2) ectric data ated power input (3) an rpe ir, ow rate inimum	W type m³/h	140 1250	140	160 Inverter of	160 entrifugal	220	230
ominal heating performances eating capacity (2) ectric data ated power input (3) an rpe ir_ow rate inimum	W type m³/h m³/h	140 1250 1450	140 1250 1450	160 Inverter of 1400 1600	160 entrifugal 1400 1600	220 1650 1900	230 1750 2000
ominal heating performances eating capacity (2) lectric data ated power input (3) an type ir ow rate linimum verage aximum	W type m³/h	140 1250	140	160 Inverter of	160 entrifugal	220	230
ominal heating performances eating capacity (2) ectric data sted power input (3) an rpe ir_ow rate inimum verage aximum igh static pressure	type m³/h m³/h m³/h	140 1250 1450 1800	140 1250 1450 1800	160 Inverter of 1400 1600 2000	160 entrifugal 1400 1600 2000	1650 1900 2350	230 1750 2000 2500
ominal heating performances eating capacity (2) ectric data sted power input (3) en pe pe ir ow rate inimum rerage aximum igh static pressure	type m³/h m³/h m³/h Pa	140 1250 1450 1800	140 1250 1450 1800	160 Inverter of 1400 1600 2000	160 entrifugal 1400 1600 2000	220 1650 1900 2350	230 1750 2000 2500
ominal heating performances eating capacity (2) ectric data sted power input (3) en pe ir ow rate inimum erage aximum igh static pressure ominal inimum	type m³/h m³/h m³/h Pa Pa	1250 1450 1800 90	1250 1450 1800 90 0	160 Inverter of 1400 1600 2000	160 entrifugal 1400 1600 2000 90 0	220 1650 1900 2350 90 0	230 1750 2000 2500 90 0
ominal heating performances eating capacity (2) ectric data sted power input (3) an pe ir , ow rate inimum verage aximum igh static pressure ominal inimum aximum	type m³/h m³/h m³/h Pa	140 1250 1450 1800	140 1250 1450 1800	160 Inverter of 1400 1600 2000	160 entrifugal 1400 1600 2000	220 1650 1900 2350	230 1750 2000 2500
ominal heating performances eating capacity (2) ectric data sited power input (3) an type ir ow rate inimum verage aximum igh static pressure ominal inimum aximum ound power	type m³/h m³/h m³/h Pa Pa Pa	1250 1450 1800 90 0	1250 1450 1800 90 0 200	160 Inverter of 1400 1600 2000 90 0 2000	160 entrifugal 1400 1600 2000 90 0 2000	220 1650 1900 2350 90 0	230 1750 2000 2500 90 0 200
ominal heating performances eating capacity (2) ectric data sted power input (3) en pe ir , ow rate inimum erage aximum igh static pressure ominal inimum aximum ound power inimum	type m³/h m³/h m³/h Pa Pa Pa Pa dB(A)	1250 1450 1800 90 0 200	1250 1450 1800 90 0 200	160 Inverter of 1400 1600 2000 90 0 2000 50,0	160 entrifugal 1400 1600 2000 90 0 2000 50,0	220 1650 1900 2350 90 0 200	230 1750 2000 2500 90 0 200
ominal heating performances eating capacity (2) ectric data sted power input (3) in pe r_ow rate inimum erage aximum igh static pressure ominal inimum aximum bund power inimum erage	type m³/h m³/h m³/h Pa Pa Pa Pa dB(A) dB(A)	1250 1450 1800 90 0 200 48,0 51,0	1250 1450 1800 90 0 200 48,0 51,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0	220 1650 1900 2350 90 0 200 51,0 53,0	230 1750 2000 2500 90 0 200 52,0 54,0
ominal heating performances eating capacity (2) ectric data sted power input (3) in pe r_ow rate inimum erage aximum igh static pressure ominal inimum aximum bund power inimum erage	type m³/h m³/h m³/h Pa Pa Pa Pa dB(A)	1250 1450 1800 90 0 200	1250 1450 1800 90 0 200	160 Inverter of 1400 1600 2000 90 0 2000 50,0	160 entrifugal 1400 1600 2000 90 0 2000 50,0	220 1650 1900 2350 90 0 200	230 1750 2000 2500 90 0 200
ominal heating performances eating capacity (2) ectric data sted power input (3) in pe r_ow rate inimum erage aximum igh static pressure ominal inimum aximum ound power inimum erage aximum ound pressure (4)	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0
ominal heating performances cating capacity (2) ectric data ted power input (3) in pe r_ow rate carinimum erage carinimum gh static pressure ominal carinimum carinimu	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0
ominal heating performances cating capacity (2) ectric data ted power input (3) in pe r_ow rate inimum erage eaximum gh static pressure ominal inimum eaximum avimum erage eaximum avimum exame ound power inimum erage eaximum erage eaximum ound pressure (4) inimum erage	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0 44,0
cominal heating performances cating capacity (2) cectric data sted power input (3) in pe r_ow rate inimum cerage aximum igh static pressure cominal cominum cound power cominum cerage caximum cound power cominum cerage caximum cound power cominum cerage caximum	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0
cominal heating performances cating capacity (2) cectric data sted power input (3) in pe r_ow rate inimum cerage caximum cound power cominal cound power cound	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A) dB(A)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0 44,0
ominal heating performances eating capacity (2) ectric data sted power input (3) en pe ir_ow rate inimum errage aximum igh static pressure ominal inimum aximum bound power inimum errage aximum bound pressure (4) inimum errage aximum bound pressure (4) inimum errage aximum bound pressure (5) inimum errage aximum bound pressure (6) inimum errage aximum errage aximum bound pressure (7) inimum errage aximum errage aximum errage aximum errage aximum errage	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) mm (inch)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0 44,0 47,0
ominal heating performances eating capacity (2) ectric data sted power input (3) en pe ir_ow rate inimum errage aximum igh static pressure ominal inimum aximum bound power inimum errage aximum bound pressure (4) inimum errage aximum bound pressure (4) inimum errage aximum bound pressure (5) inimum errage aximum bound pressure (6) inimum errage aximum errage aximum bound pressure (7) inimum errage aximum errage aximum errage aximum errage aximum errage	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A) dB(A)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0 44,0 47,0
ominal heating performances eating capacity (2) ectric data sted power input (3) en pe ir_ow rate inimum errage aximum igh static pressure eminal inimum examinum exa	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) mm (inch)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0 44,0 47,0
ominal heating performances eating capacity (2) ectric data sited power input (3) en pe r_owrate inimum erage eximum inimum aximum eximum exim	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) mm (inch)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0 3/8")	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 90 0 200 52,0 54,0 57,0 42,0 44,0 47,0
ominal heating performances eating capacity (2) ectric data ated power input (3) an rpe ir , ow rate inimum rerage aximum igh static pressure ominal inimum aximum	type m³/h m³/h m³/h Pa Pa Pa dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) mm (inch)	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	140 1250 1450 1800 90 0 200 48,0 51,0 54,0 38,0 41,0	160 Inverter of 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0 9,52 (15,9 (5/8")	160 entrifugal 1400 1600 2000 90 0 200 50,0 52,0 55,0 40,0 42,0 45,0 3/8")	220 1650 1900 2350 90 0 200 51,0 53,0 56,0 41,0 43,0	230 1750 2000 2500 2500 90 0 200 52,0 54,0 57,0 42,0 44,0

		MVA 2240 DH	MVA 2800 DH
Nominal cooling performances			
Cooling capacity (1)	kW	22,40	28,00
Nominal heating performances			
Heating capacity (2)	kW	24,00	30,00
Electric data			
Rated power input (3)	W	960	1250
Fan			
Туре	type		
Air ow rate			
Minimum	m³/h	-	-
Average	m³/h	-	<u>-</u>
Maximum	m³/h	4000	4400
High static pressure			
Nominal	Pa	150	150
Minimum	Pa	-	-
Maximum	Pa	-	-
Sound power			
Minimum	dB(A)	59,0	60,0
Average	dB(A)	62,0	62,0
Maximum	dB(A)	64,0	65,0
Sound pressure (4)			
Minimum	dB(A)	49,0	50,0
Average	dB(A)	52,0	52,0
Maximum	dB(A)	54,0	55,0
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	19,05 (3/4")	22,2 (7/8")
Diameter of refrigerant gas connections	mm (inch)		9,52 (3/8")
Power supply			
Indoor unit power supply			220-240V ~ 50Hz
Indoor unit			
Condensate discharge diameter	mm	30,0	30,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_DV

		MVA220DV	MVA280DV	MVA360DV	MVA450DV	MVA560DV	MVA630DV	MVA710DV
Nominal cooling performances								
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,60	6,30	7,10
Nominal heating performances								
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	6,30	7,10	8,00
Electric data								
Rated power input (3)	W	35	35	43	45	80	80	90
Fan								
Туре	type				Inverter centrifugal			
Air ow rate								
Minimum	m³/h	250	250	350	400	600	600	700
Average	m³/h	350	350	450	500	750	750	900
Maximum	m³/h	450	450	550	650	900	900	1100
High static pressure								
Nominal	Pa	10	10	10	15	15	15	15
Minimum	Pa	0	0	0	0	0	0	0
Maximum	Pa	40	40	40	60	60	60	60
Sound power								
Minimum	dB(A)	35,0	35,0	38,0	38,0	40,0	40,0	43,0
Average	dB(A)	38,0	38,0	41,0	41,0	43,0	43,0	45,0
Maximum	dB(A)	40,0	40,0	43,0	43,0	45,0	45,0	47,0
Sound pressure (4)								
Minimum	dB(A)	25,0	25,0	28,0	28,0	30,0	30,0	33,0
Average	dB(A)	28,0	28,0	31,0	31,0	33,0	33,0	35,0
Maximum	dB(A)	30,0	30,0	33,0	33,0	35,0	35,0	37,0
Refrigeration pipework								
Diameter of liquid refrigerant connections	mm (inch)		6,35	(1/4")			9,52 (3/8")	
Diameter of refrigerant gas connections	mm (inch)	9,52	(3/8")	12,7	(1/2")		15,9 (5/8")	
Power supply								
Indoor unit power supply					220-240V ~ 50Hz			
Indoor unit								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_CS

		MVA151CS	MVA181CS	MVA221CS	MVA281CS	MVA361CS	MVA451CS	MVA501CS	MVA561CS
Nominal cooling performances									
Cooling capacity (1)	kW	1,50	1,80	2,20	2,80	3,60	4,50	5,00	5,60
Nominal heating performances									
Heating capacity (2)	kW	1,80	2,20	2,50	3,20	4,00	5,00	5,60	6,30
Electric data									
Rated power input (3)	W	30	30	30	30	30	45	45	45
Fan									
Туре	type				Inverter o	entrifugal			
Air ow rate									
Minimum	m³/h	370	370	370	420	480	560	560	560
Average	m³/h	420	420	460	480	550	650	650	650
Maximum	m³/h	460	460	500	570	620	730	730	730
Sound power									
Minimum	dB(A)	43,0	43,0	43,0	46,0	49,0	57,0	47,0	57,0
Average	dB(A)	48,0	48,0	49,0	51,0	53,0	59,0	59,0	59,0
Maximum	dB(A)	51,0	51,0	54,0	54,0	56,0	61,0	61,0	61,0
Sound pressure (4)									
Minimum	dB(A)	25,0	25,0	25,0	28,0	31,0	39,0	39,0	39,0
Average	dB(A)	30,0	30,0	31,0	33,0	35,0	41,0	41,0	41,0
Maximum	dB(A)	33,0	33,0	36,0	36,0	38,0	43,0	43,0	43,0
Refrigeration pipework									
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)	9,52	(3/8")	9,52	(3/8")		12,7 (1/2")		15,9 (5/8")
Power supply									
Indoor unit power supply					220-240	V ~ 50Hz			
Indoor unit									
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_C

		MVA221C	MVA281C	MVA361C	MVA451C	MVA501C	MVA561C	MVA631C
Naminal and in a naufarman		MVAZZIC	MVAZOIC	MVA301C	MVA451C	MVASUIC	MVASOIC	MVA031C
Nominal cooling performances	1111	2.20	2.00	3.60	4.50	5.00	5.60	(30
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00	5,60	6,30
Nominal heating performances								
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,60	6,30	7,10
Electric data								
Rated power input (3)	W	26	26	26	26	28	35	60
Fan								
Туре	type				Inverter centrifugal			
Air , ow rate								
Minimum	m³/h	600	600	600	600	700	750	850
Average	m³/h	700	700	700	700	800	850	950
Maximum	m³/h	800	800	800	800	900	950	1150
Sound power								
Minimum	dB(A)	38,0	38,0	38,0	38,0	39,0	40,0	41,0
Average	dB(A)	40,0	40,0	40,0	40,0	42,0	43,0	44,0
Maximum	dB(A)	43,0	43,0	43,0	44,0	45,0	47,0	47,0
Sound pressure (4)								
Minimum	dB(A)	28,0	28,0	28,0	28,0	29,0	30,0	31,0
Average	dB(A)	30,0	30,0	30,0	30,0	32,0	33,0	34,0
Maximum	dB(A)	33,0	33,0	33,0	34,0	35,0	37,0	37,0
Refrigeration pipework							-	
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")			9,52	(3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52	(3/8")		12,7 (1/2")		15,9	(5/8")
Power supply								
Indoor unit power supply					220-240V ~ 50Hz			
Indoor unit								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0

		MVA711C	MVA801C	MVA901C	MVA1001C	MVA1121C	MVA1251C	MVA1401C
Nominal cooling performances								
Cooling capacity (1)	kW	7,10	8,00	9,00	10,00	11,20	12,50	14,00
Nominal heating performances								
Heating capacity (2)	kW	8,00	9,00	10,00	11,20	12,50	14,00	16,00
Electric data								
Rated power input (3)	W	60	85	85	85	115	115	115
Fan								
Туре	type				Inverter centrifugal			
Air ow rate								
Minimum	m³/h	850	900	900	900	1100	1100	1100
Average	m³/h	950	1000	1000	1000	1300	1300	1300
Maximum	m³/h	1150	1250	1250	1250	1650	1650	1650
Sound power								
Minimum	dB(A)	41,0	44,0	44,0	44,0	49,0	49,0	49,0
Average	dB(A)	44,0	47,0	47,0	47,0	51,0	51,0	51,0
Maximum	dB(A)	47,0	49,0	49,0	49,0	53,0	53,0	53,0
Sound pressure (4)								
Minimum	dB(A)	31,0	34,0	34,0	34,0	39,0	39,0	39,0
Average	dB(A)	34,0	37,0	37,0	37,0	41,0	41,0	41,0
Maximum	dB(A)	37,0	39,0	39,0	39,0	43,0	43,0	43,0
Refrigeration pipework								
Diameter of liquid refrigerant connections	mm (inch)				9,52 (3/8")			
Diameter of refrigerant gas connections	mm (inch)				15,9 (5/8")			
Power supply								
Indoor unit power supply					220-240V ~ 50Hz			
Indoor unit								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_CB

		MVA1600CB
Nominal cooling performances		
Cooling capacity (1)	kW	16,00
Nominal heating performances		
Heating capacity (2)	kW	17,50
Electric data		
Rated power input (3)	W	130
Fan		
Туре	type	Inverter centrifugal
Air ow rate		
Minimum	m³/h	1400
Average	m³/h	1700
Maximum	m³/h	2100
Sound power		
Minimum	dB(A)	52,0
Average	dB(A)	54,0
Maximum	dB(A)	57,0
Sound pressure (4)		
Minimum	dB(A)	42,0
Average	dB(A)	44,0
Maximum	dB(A)	47,0
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	19,05 (3/4")
Power supply		
Indoor unit power supply		220-240V ~ 50Hz
Indoor unit		
Condensate discharge diameter	mm	25,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_C1

	'	MVA220C1	MVA280C1	MVA360C1	MVA450C1	MVA500C1
Nominal cooling performances						
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00
Nominal heating performances						
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,60
Electric data						
Rated power input (3)	W	30	30	30	30	30
Fan						
Туре	type			Inverter tangential		
Air ow rate						
Minimum	m³/h	450	450	450	500	500
Average	m³/h	500	500	500	600	600
Maximum	m³/h	600	600	600	830	830
Sound power						
Minimum	dB(A)	38,0	38,0	38,0	40,0	40,0
Average	dB(A)	42,0	42,0	42,0	45,0	45,0
Maximum	dB(A)	46,0	46,0	46,0	50,0	50,0
Sound pressure (4)						
Minimum	dB(A)	28,0	28,0	28,0	30,0	30,0
Average	dB(A)	32,0	32,0	32,0	35,0	35,0
Maximum	dB(A)	36,0	36,0	36,0	40,0	40,0
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")		
Diameter of refrigerant gas connections	mm (inch)	9,52	2 (3/8")		12,7 (1/2")	
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		
Indoor unit						
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_F

MVA_I		MVA280F	MVA360F	MVA500F	MVA630F	MVA710F	MVA900F	MVA1120F	MVA1250F	MVA1400F
Nominal cooling performances		MVMZOUF	MANOOL	MANOUL	MANOOUL	MIVA/ IUF	INIVAZUUT	MVMIIZUF	INIVA 1230F	MVA 1400F
Cooling capacity (1)	kW	2,80	3,60	5,00	6,30	7,10	9,00	11,20	12,50	14,00
Nominal heating performances	KII .	2,00	3,00	5,00	0,50	7,10	7,00	11,20	12,50	1 1,00
Heating capacity (2)	kW	3,20	4,00	5,60	7,10	8,00	10,00	12,50	14,00	16,00
Electric data			.,,		.,		,		,	
Rated power input (3)	W	40	40	50	75	75	140	160	160	160
Fan										
Туре	type				I	nverter centrifuga	al			
Air , ow rate										
Minimum	m³/h	500	500	700	1000	1000	1200	1450	1450	1450
Average	m³/h	580	580	850	1150	1150	1400	1800	1800	1800
Maximum	m³/h	650	650	950	1400	1400	1600	2000	2000	2000
Sound power										
Minimum	dB(A)	42,0	42,0	43,0	49,0	49,0	53,0	52,0	55,0	55,0
Average	dB(A)	44,0	44,0	48,0	52,0	52,0	57,0	57,0	59,0	59,0
Maximum	dB(A)	46,0	46,0	52,0	54,0	54,0	60,0	61,0	62,0	62,0
Sound pressure (4)										
Minimum	dB(A)	32,0	32,0	33,0	39,0	39,0	43,0	42,0	45,0	45,0
Average	dB(A)	34,0	34,0	38,0	42,0	42,0	47,0	47,0	49,0	49,0
Maximum	dB(A)	36,0	36,0	42,0	44,0	44,0	50,0	51,0	52,0	52,0
Refrigeration pipework										
Diameter of liquid refrigerant connections	mm (inch)		6,35 (1/4")				9,52	(3/8")		
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7	(1/2")			15,9	(5/8")		
Power supply										
Indoor unit power supply						220-240V ~ 50H	<u>!</u>			
Indoor unit										
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_FS

		MVA220FS	MVA280FS	MVA360FS	MVA450FS	MVA500FS
Nominal cooling performances						
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00
Nominal heating performances						
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,50
Electric data						
Rated power input (3)	W	15	15	20	40	40
Fan						
Туре	type			Inverter centrifugal		
Air , ow rate						
Minimum	m³/h	270	270	310	500	500
Average	m³/h	320	320	400	600	600
Maximum	m³/h	400	400	480	680	680
Sound power						
Minimum	dB(A)	37,0	37,0	42,0	49,0	49,0
Average	dB(A)	43,0	43,0	47,0	53,0	53,0
Maximum	dB(A)	48,0	48,0	50,0	56,0	56,0
Sound pressure (4)						
Minimum	dB(A)	27,0	27,0	32,0	39,0	39,0
Average	dB(A)	33,0	33,0	37,0	43,0	43,0
Maximum	dB(A)	38,0	38,0	40,0	46,0	46,0
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")		
Diameter of refrigerant gas connections	mm (inch)	9,5	52 (3/8")		12,7 (1/2")	
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		
Indoor unit						
Condensate discharge diameter	mm	17,2	17,2	17,2	17,2	17,2

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_V

		MVA1000V	MVA1400V
Nominal cooling performances			
Cooling capacity (1)	kW	10,00	14,00
Nominal heating performances			
Heating capacity (2)	kW	11,00	15,00
Electric data			
Rated power input (3)	W	200	200
Fan			
Туре	type		Inverter centrifugal
Air ow rate			
Minimum	m³/h	1400	1400
Average	m³/h	1600	1600
Maximum	m³/h	1850	1850
Sound power			
Minimum	dB(A)	56,0	56,0
Average	dB(A)	58,0	58,0
Maximum	dB(A)	60,0	60,0
Sound pressure (4)			
Minimum	dB(A)	46,0	46,0
Average	dB(A)	48,0	48,0
Maximum	dB(A)	50,0	50,0
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)		9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)		15,9 (5/8")
Power supply			
Indoor unit power supply			220-240V ~ 50Hz
Indoor unit			
Condensate discharge diameter	mm	31,0	31,0

- (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 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.; max 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 pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

2-PIPE SYSTEM OUTDOOR UNIT PERFORMANCE DATA

		MVAS 1201S	MVAS 1201T	MVAS 1401S	MVAS 1401T	MVAS 1601S	MVAS 1601T	MVAS 2242T	MVAS 2802T	MVAS 3351T
Nominal cooling performances										
Cooling capacity	kW	12,10	12,10	14,00	14,00	16,00	16,00	22,40	28,00	33,50
Cooling input power	kW	3,03	3,03	3,59	3,59	4,75	4,75	6,12	7,78	9,57
Cooling input current	A	-	-	-	-	-	-	10,9	13,9	17,1
EER	W/W	3,99	3,99	3,90	3,90	3,37	3,37	3,66	3,60	3,50
Nominal heating performances	134/	14.00	1100	47.50	16.50	10.00	10.00	24.00	20.00	25.00
Heating capacity	kW	14,00	14,00	16,50	16,50	18,00	18,00	24,00	30,00	35,00
Heating input power	kW	3,27	3,27	3,95	3,95	4,65	4,65	4,90	6,12	7,14
Heating input current	A	-	-	-	-	-	-	8,8	10,9	12,8
COP	W/W	4,28	4,28	4,18	4,18	3,87	3,87	4,90	4,90	4,90
Fan										
Type	type					Inverter axial				
Number	no.	2	2	2	2	2	2	2	2	2
Air , ow rate	2									
Nominal	m³/h	6000	6000	6300	6300	6600	6600	8000	11000	11000
Sound pressure										
Nominal	dB(A)	57,0	57,0	58,0	58,0	58,0	58,0	63,0	65,0	65,0
Compressor										
Type	type					Scroll inverter				
Number	no.	1	1	1	1	1	1	1	1	1
Refrigerant	type					R410A				
Refrigerant charge	kg	3,3	3,3	3,3	3,3	3,3	3,3	5,5	7,1	80,0
Electric data								-		
Rated power input	kW	-	-	-	-	-	-	9,6	12,5	13,7
Rated current input	A	30,4	11,1	33,7	12,0	36,3	12,5	17,2	22,4	24,5
Refrigeration pipework										
Maximum refrigerant tube length	m	300	300	300	300	300	300	300	300	300
Power supply										
Outdoor unit power supply		220-240V ~	380-415V ~ 3N		380-415V ~ 3N	220-240V ~		380_/15V	~ 3N ~ 50Hz	
Outdoor unit power suppry		50Hz	~ 50Hz	50Hz	~ 50Hz	50Hz		300-41317	° 3N ~ 30NZ	
		MVAM 2241T	MVAM 2801	T MVAM 33	51T MVAM 4	1001T MVAN	M 4501T MV	AM 5041T N	AVAM 5601T	MVAM 6151T
Nominal cooling performances			,	'			'			
Cooling capacity (1)	kW	22,40	28,00	33,50	40,0	10 45	5,00	50,40	56,00	61,50
Cooling input power (1)	kW	4,74	6,25	8,40	10,5	3 12	2,82	15,75	20,00	29,29
Cooling input current	A	8,5	11,2	15,0	18,		2,9	28,2	35,8	52,4
EER (2)	W/W	4,73	4,48	3,99	3,8		,51	3,20	2,80	2,10
Nominal heating performances										
Heating capacity (3)	kW	25,00	31,50	37,50	45,0	10 50),00	56,50	63,00	69,00
Heating input power (3)	kW	4,81	5,67	7,14	9,5	1 10),86	14,10	16,60	18,90
Heating input current										
	A	8.6	10.1	12.8	17.	0 1	9.4	25.2	29.7	33.8
COP (2)	M/W	8,6 5,20	10,1 5,56	12,8 5,25	17, 4,7		9,4 ,60	25,2 4,01	29,7 3,80	33,8 3,65
COP (2)		8,6 5,20	10,1 5,56	12,8 5,25	17, 4,7		9,4 ,60	25,2 4,01	29,7 3,80	33,8 3,65
Fan	W/W					3 4				
Fan Type	W/W type	5,20			4,7	Inverter axial	,60	4,01	3,80	3,65
Fan Type Number	W/W		5,56	5,25		Inverter axial				
Fan Type Number Air , ow rate	type no.	5,20	5,56	5,25	4,7	Inverter axial	,60	4,01	2	3,65
Fan Type Number Air , ow rate Nominal	W/W type	5,20	5,56	5,25	4,7	Inverter axial	,60	4,01	3,80	3,65
Fan Type Number Air , ow rate Nominal Sound pressure (4)	type no. m³/h	1 11400	5,56 1 11400	1 14000	2	Inverter axial	2	2 16000	2 16000	2 16000
Fan Type Number Air , ow rate Nominal Sound pressure (4)	type no.	5,20	5,56	5,25	4,7	Inverter axial	,60	4,01	2	3,65
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor	type no. m³/h dB(A)	1 11400	5,56 1 11400	1 14000	2	Inverter axial	2	2 16000	2 16000	2 16000
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor	type no. m³/h dB(A)	1 11400 60,0	5,56 1 11400 61,0	1 14000 63,0	2 1400	Inverter axial 00 16 Scroll inverter	2	2 16000 63,0	2 16000 63,0	2 16000 64,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number	type no. m³/h dB(A) type no.	1 11400	5,56 1 11400	1 14000	2	Inverter axial O 16 Scroll inverter	2	2 16000	2 16000	2 16000
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant	type no. m³/h dB(A) type no. type	5,20 1 11400 60,0	5,56 1 11400 61,0	5,25 1 14000 63,0	2 1400 63,	Inverter axial	220000	2 16000 63,0	2 16000 63,0	2 16000 64,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge	type no. m³/h dB(A) type no.	1 11400 60,0	5,56 1 11400 61,0	1 14000 63,0	2 1400	Inverter axial	2	2 16000 63,0	2 16000 63,0	2 16000 64,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge Electric data	type no. m³/h dB(A) type no. type kg	5,20 1 11400 60,0	5,56 1 11400 61,0 1	5,25 1 14000 63,0	4,7 2 1400 63,	Inverter axial	220000	2 16000 63,0 2 11,3	2 16000 63,0 2 14,3	2 16000 64,0 2
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge Electric data Rated power input (5)	type no. m³/h dB(A) type no. type kg	5,20 1 11400 60,0 1 5,9 9,0	5,56 1 11400 61,0 1 9,0 11,7	5,25 1 14000 63,0 1 8,2	4,7 2 1400 63, 2 9,8	Inverter axial	2 5000 3,0 2 0,3 8,6	2 16000 63,0 2 11,3	2 16000 63,0 2 14,3	2 16000 64,0 2 14,3 30,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge Electric data Rated power input (5) Rated current input (5)	type no. m³/h dB(A) type no. type kg	5,20 1 11400 60,0	5,56 1 11400 61,0 1	5,25 1 14000 63,0	4,7 2 1400 63,	Inverter axial	220000	2 16000 63,0 2 11,3	2 16000 63,0 2 14,3	2 16000 64,0 2
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge Electric data Rated power input (5) Refrigeration pipework	type no. m³/h dB(A) type no. type kg kW A	5,20 1 11400 60,0 1 5,9 9,0	5,56 1 11400 61,0 1 9,0 11,7	5,25 1 14000 63,0 1 8,2	4,7 2 1400 63, 2 9,8	Inverter axial	2 5000 3,0 2 0,3 8,6	2 16000 63,0 2 11,3	2 16000 63,0 2 14,3	2 16000 64,0 2 14,3 30,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge Electric data Rated power input (5) Refrigeration pipework Type refrigerant connections	type no. m³/h dB(A) type no. type kg kW A	5,20 1 11400 60,0 1 5,9 9,0 16,1	5,56 1 11400 61,0 1 9,0 11,7 20,9	5,25 1 14000 63,0 1 8,2	4,7 2 1400 63, 2 9,8 16, 28,	Inverter axial	2 5000 3,0 2 0,3 8,6	2 16000 63,0 2 11,3 25,0 44,7	2 16000 63,0 2 14,3 28,0 50,0	2 16000 64,0 2 14,3 30,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant Refrigerant charge Electric data Rated power input (5) Refrigeration pipework Type refrigerant connections Diameter of liquid refrigerant connections	type no. m³/h dB(A) type no. type kg kW A Type mm (inch)	5,20 1 11400 60,0 1 5,9 9,0 16,1	5,56 1 11400 61,0 1 9,0 11,7 20,9	5,25 1 14000 63,0 1 8,2	4,7 2 1400 63,7 2 9,6 16, 28,	Inverter axial	2 5000 3,0 2 0,3 8,6	2 16000 63,0 2 11,3 25,0 44,7	2 16000 63,0 2 14,3 28,0 50,0	2 16000 64,0 2 14,3
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant charge Electric data Rated power input (5) Rated current input (5) Refrigeration pipework Type refrigerant connections Diameter of liquid refrigerant connections Diameter of refrigerant gas connections	type no. m³/h dB(A) type no. type kg kW A Type mm (inch) mm (inch)	5,20 1 11400 60,0 1 5,9 9,0 16,1 19,05 (3/4")	5,56 1 11400 61,0 1 9,0 11,7 20,9 2 (3/8") 22,2 (7/8")	5,25 1 14000 63,0 1 8,2 13,8 24,6	4,7 2 1400 63, 2 9,6 16, 28, 12,7 (1 25,4 (1")	3 4 Inverter axial 20 16 20 6 Scroll inverter R410A 1 1 1 8 3 To be soldered /2")	2 2 3000 3,0 2 0,3 8,6 3,2	2 16000 63,0 2 11,3 25,0 44,7	2 16000 63,0 2 14,3 28,0 50,0	2 16000 64,0 2 14,3 30,0 53,6
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant charge Electric data Rated power input (5) Rated current input (5) Refrigeration pipework Type refrigerant connections Diameter of liquid refrigerant connections Diameter of refrigerant tube length	type no. m³/h dB(A) type no. type kg kW A Type mm (inch)	5,20 1 11400 60,0 1 5,9 9,0 16,1	5,56 1 11400 61,0 1 9,0 11,7 20,9	5,25 1 14000 63,0 1 8,2	4,7 2 1400 63,7 2 9,6 16, 28,	3 4 Inverter axial 20 16 20 6 Scroll inverter R410A 1 1 1 8 3 To be soldered /2")	2 5000 3,0 2 0,3 8,6	2 16000 63,0 2 11,3 25,0 44,7	2 16000 63,0 2 14,3 28,0 50,0	2 16000 64,0 2 14,3 30,0
Fan Type Number Air , ow rate Nominal Sound pressure (4) Nominal Compressor Type Number Refrigerant charge Electric data Rated power input (5) Rated current input (5) Refrigeration pipework Type refrigerant connections Diameter of liquid refrigerant connections Diameter of refrigerant gas connections	type no. m³/h dB(A) type no. type kg kW A Type mm (inch) mm (inch)	5,20 1 11400 60,0 1 5,9 9,0 16,1 19,05 (3/4")	5,56 1 11400 61,0 1 9,0 11,7 20,9 2 (3/8") 22,2 (7/8")	5,25 1 14000 63,0 1 8,2 13,8 24,6	4,7 2 1400 63,7 2 9,6 16, 28, 12,7 (1 25,4 (1")	3 4 Inverter axial 20 16 20 6 Scroll inverter R410A 1 1 1 8 3 To be soldered /2")	2 2 3000 3,0 2 0,3 8,6 3,2	2 16000 63,0 2 11,3 25,0 44,7	2 16000 63,0 2 14,3 28,0 50,0	2 16000 64,0 2 14,3 30,0 53,6

⁽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 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.; max speed; length of refrigerant lines 5 m.

(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

(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.

3-PIPE SYSTEM OUTDOOR UNIT PERFORMANCE DATA

		MVAMHR 2241T	MVAMHR 2801T	MVAMHR 3351T	MVAMHR 4001T	MVAMHR 4501T
Nominal cooling performances						
Cooling capacity (1)	kW	22,40	28,00	33,50	40,00	45,00
Cooling input power (1)	kW	5,48	8,15	8,30	11,90	14,80
Cooling input current	A	9,8	14,6	14,8	21,3	26,5
EER (2)	W/W	4,09	3,44	4,04	3,36	3,04
Nominal heating performances						
Heating capacity (3)	kW	25,00	31,50	37,50	45,00	50,00
Heating input power (3)	kW	5,26	7,30	7,70	10,00	12,70
leating input current	A	9,4	13,0	13,8	17,9	22,7
COP (2)	W/W	4,75	4,32	4,87	4,50	3,94
Fan						
уре	type	Inverter axial				
lumber	no.	1	1	2	2	2
Air , ow rate						
lominal	m³/h	11400	11400	14000	14000	14000
ound power						
Vominal	dB(A)	84,0	84,0	80,0	86,0	89,0
Compressor						
Гуре	type	Scroll inverter				
lumber	no.	1	1	1	2	2
Refrigerant	type	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg	6,2	7,1	9,6	11,1	11,6
Electric data						
Rated power input (4)	kW	9,1	11,7	13,8	16,1	18,6
Rated current input (4)	A	16,3	20,9	24,7	28,8	33,2
Refrigeration pipework						
ype refrigerant connections	Туре	To be soldered				
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Diameter of high pressure refrigerant gas connections	mm (inch)	15,9 (5/8")	19,05 (3/4")	19,05 (3/4")	22,2 (7/8")	22,2 (7/8")
Diameter of low pressure refrigerant gas connections	mm (inch)	19,05 (3/4")	22,2 (7/8")	25,4 (1/1")	25,4 (1/1")	28,6 (1"1/8)
Maximum refrigerant tube length	m	1000	1000	1000	1000	1000
Power supply						
Outdoor unit power supply		380-415V ~ 3N ~ 50Hz				

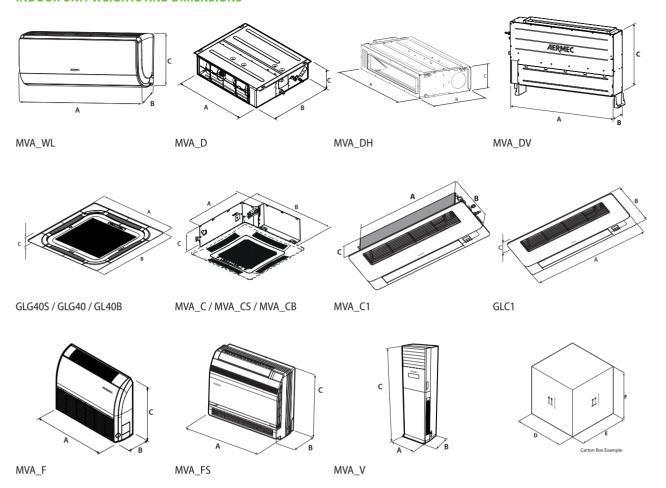
⁽¹⁾ Cooling (EN-14511 and EN-14825) ambient air temperature 27 °C D.B. / 19 °C W.B.; outside air temperature 35 °C; max speed; length of refrigerant lines 5 m.

(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.; max speed; length of refrigerant lines 5 m.

(4) 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 WEIGHTS AND DIMENSIONS



MVA_WL

		MVA220WL	MVA280WL	MVA360WL	MVA450WL	MVA500WL	MVA560WL	MVA630WL	MVA710WL
Indoor unit									
A	mm	845	845	845	970	970	1078	1078	1078
В	mm	209	209	209	224	224	246	246	246
C	mm	289	289	289	300	300	325	325	325
D	mm	976	976	976	1096	1096	1203	1203	1203
E	mm	281	281	281	320	320	350	350	350
F	mm	379	379	379	383	383	413	413	413
Net weight	kg	11	11	11	13	13	16	16	16
Weight for transport	ka	13	13	13	16	16	19	19	19

MVA_D

		MVA221D	MVA251D	MVA281D	MVA321D	MVA361D	MVA401D	MVA451D	MVA501D	MVA561D
Indoor unit										
A	mm	710	710	710	710	710	1010	1010	1010	1010
В	mm	462	462	462	462	462	462	462	462	462
(mm	200	200	200	200	200	200	200	200	200
D	mm	1008	1008	1008	1008	1008	1308	1308	1308	1308
E	mm	568	568	568	568	568	568	568	568	568
F	mm	275	275	275	275	275	275	275	275	275
Net weight	kg	19	19	19	19	19	25	25	25	25
Weight for transport	kg	24	24	24	24	24	31	31	31	31

	,	MVA631D	MVA711D	MVA801D	MVA901D	MVA1001D	MVA1121D	MVA1251D	MVA1401D
Indoor unit									
A	mm	1010	1310	1200	1340	1340	1340	1340	1340
В	mm	462	462	655	655	655	655	655	655
C	mm	200	200	260	260	260	260	260	260
D	mm	1308	1608	1448	1588	1588	1588	1588	1588
E	mm	568	568	858	858	858	858	858	858
F	mm	275	275	315	315	315	315	315	315
Net weight	kg	25	31	39	46	46	46	47	47
Weight for transport	kg	31	38	48	55	55	55	56	56

MVA_DH

		MVA221DH	MVA251DH	MVA281DH	MVA321DH	MVA361DH	MVA401DH
Indoor unit							
A	mm	700	700	700	700	700	700
В	mm	700	700	700	700	700	700
C	mm	300	300	300	300	300	300
D	mm	897	897	897	897	897	897
E	mm	808	808	808	808	808	808
F	mm	362	362	362	362	362	362
Net weight	kg	32	32	32	32	32	34
Weight for transport	kg	38	38	38	38	38	40

		MVA451DH	MVA501DH	MVA561DH	MVA631DH	MVA711DH	MVA801DH
Indoor unit							
A	mm	700	700	1000	1000	1000	1000
В	mm	700	700	700	700	700	700
C	mm	300	300	300	300	300	300
D	mm	897	897	1205	1205	1205	1205
E	mm	808	808	813	813	813	813
F	mm	362	362	360	360	360	360
Net weight	kg	34	34	43	43	43	43
Weight for transport	kg	40	40	49	49	49	49

		MVA901DH	MVA1001DH	MVA1121DH	MVA1251DH	MVA1401DH	MVA1601DH
Indoor unit							
A	mm	1400	1400	1400	1400	1400	1400
В	mm	700	700	700	700	700	700
(mm	300	300	300	300	300	300
D	mm	1601	1601	1601	1601	1678	1678
E	mm	813	813	813	813	808	808
F	mm	365	365	365	365	365	365
Net weight	kg	57	57	57	57	57	57
Weight for transport	kg	64	64	64	64	67	67

		MVA 2240 DH	MVA 2800 DH
Indoor unit	•		
A	mm	1483	1686
В	mm	791	870
C	mm	385	450
D	mm	1758	1788
E	mm	883	988
F	mm	470	580
Net weight	kg	133	144
Weight for transport	kg	166	183

MVA_DV

		MVA220DV	MVA280DV	MVA360DV	MVA450DV	MVA560DV	MVA630DV	MVA710DV
Indoor unit								
A	mm	700	700	700	900	1100	1100	1100
В	mm	200	200	200	200	200	200	200
C	mm	615	615	615	615	615	615	615
D	mm	893	893	893	1123	1323	1323	1323
<u>E</u>	mm	305	305	305	305	305	305	305
F	mm	743	743	743	743	743	743	743
Net weight	kg	23	23	23	27	32	32	32
Weight for transport	kg	30	30	30	36	41	41	41

MVA_CS

		MVA151CS	MVA181CS	MVA221CS	MVA281CS	MVA361CS	MVA451CS	MVA501CS	MVA561CS
Indoor unit	'								
A	mm	570	570	570	570	570	570	570	570
В	mm	570	570	570	570	570	570	570	570
C	mm	265	265	265	265	265	265	265	265
D	mm	698	698	698	698	698	698	698	698
E	mm	653	653	653	653	653	653	653	653
F	mm	295	295	295	295	295	295	295	295
Net weight	kg	18	18	18	18	18	18	18	18
Weight for transport	kg	23	23	23	23	23	23	23	23

MVA_C

		MVA221C	MVA281C	MVA361C	MVA451C	MVA501C	MVA561C	MVA631C
Indoor unit	,							
A	mm	840	840	840	840	840	840	840
В	mm	840	840	840	840	840	840	840
C	mm	240	240	240	240	240	240	240
D	mm	963	963	963	963	963	963	963
E	mm	963	963	963	963	963	963	963
F	mm	325	325	325	325	325	325	325
Net weight	kg	27	27	27	27	28	28	28
Weight for transport	kg	35	35	35	35	36	36	36

		MVA711C	MVA801C	MVA901C	MVA1001C	MVA1121C	MVA1251C	MVA1401C
Indoor unit								
A	mm	840	840	840	840	840	840	840
В	mm	840	840	840	840	840	840	840
C	mm	240	240	240	240	290	290	290
D	mm	963	963	963	963	963	963	963
E	mm	963	963	963	963	963	963	963
F	mm	325	325	325	325	375	375	375
Net weight	kg	28	29	29	29	33	33	33
Weight for transport	kg	36	37	37	37	42	42	42

MVA_CB

		MVA1600CB	
Indoor unit	'		
A	mm	910	
В	mm	910	
(mm	290	
D	mm	1023	
E	mm	993	
F	mm	375	
Net weight	kg	47	
Weight for transport	kg	57	

MVA_C1

		MVA220C1	MVA280C1	MVA360C1	MVA450C1	MVA500C1
Indoor unit	-					
A	mm	987	987	987	987	987
В	mm	385	385	385	385	385
C	mm	178	178	178	178	178
D	mm	1307	1307	1307	1307	1307
E	mm	501	501	501	501	501
F	mm	310	310	310	310	310
Net weight	kg	20	20	20	21	21
Weight for transport	kg	27	27	27	29	29

MVA_F

		MVA280F	MVA360F	MVA500F	MVA630F	MVA710F	MVA900F	MVA1120F	MVA1250F	MVA1400F
Indoor unit										
A	mm	1220	1220	1220	1420	1420	1420	1700	1700	1700
В	mm	225	225	225	245	245	245	245	245	245
C	mm	700	700	700	700	700	700	700	700	700
D	mm	1343	1343	1343	1548	1548	1548	1828	1828	1828
E	mm	315	315	315	345	345	345	345	345	345
F	mm	823	823	823	828	828	828	828	828	828
Net weight	kg	40	40	40	50	50	50	60	60	60
Weight for transport	kg	49	49	49	58	58	58	68	68	68

MVA_FS

		MVA220FS	MVA280FS	MVA360FS	MVA450FS	MVA500FS
Indoor unit						
A	mm	700	700	700	700	700
}	mm	215	215	215	215	215
	mm	600	600	600	600	600
)	mm	780	780	780	780	780
	mm	285	285	285	285	285
	mm	682	682	682	682	682
Net weight	kg	16	16	16	16	16
Veight for transport	kg	19	19	19	19	19

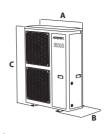
MVA_V

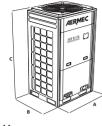
		MVA1000V	MVA1400V
Indoor unit			
A	mm	580	580
В	mm	400	400
C	mm	1870	1870
D	mm	738	738
E	mm	545	545
F	mm	2083	2083
Net weight	kg	54	57
Weight for transport	kg	74	77

GLC1 / GL40B / GLG40S / GLG40

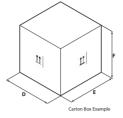
		GLC1	GLG40S	GLG40	GL40B
Indoor unit					
A	mm	1200	620	950	1040
В	mm	460	620	950	1040
C	mm	55	48	52	65
D	mm	1265	701	1033	1137
E	mm	536	701	1038	1137
F	mm	118	125	112	140
Net weight	kg	4	3	6	8
Weight for transport	kg	6	5	10	12

OUTDOOR UNIT WEIGHTS AND DIMENSIONS









MVA_S

MVA_M

MVA_MHR

MVA S

		MVAS 1201S	MVAS 1201T	MVAS 1401S	MVAS 1401T	MVAS 1601S	MVAS 1601T	MVAS 2242T	MVAS 2802T	MVAS 3351T
Outdoor unit	'									
A	mm	900	900	900	900	900	900	940	940	940
В	mm	340	340	340	340	340	340	320	460	460
C	mm	1345	1345	1345	1345	1345	1345	1430	1615	1615
D	mm	1408	1048	1408	1048	1408	1048	1038	1038	1038
E	mm	458	458	458	458	458	458	438	578	578
F	mm	1507	1507	1507	1507	1507	1507	1580	1765	1765
Net weight	kg	110	120	110	120	110	120	133	166	177
Weight for transport	kg	123	133	123	133	123	133	144	183	194

MVA_M

	1	MVAM 2241T	MVAM 2801T	MVAM 3351T	MVAM 4001T	MVAM 4501T	MVAM 5041T	MVAM 5601T	MVAM 6151T
Outdoor unit									
A	mm	930	930	1340	1340	1340	1340	1340	1340
В	mm	765	765	765	765	765	765	765	765
C	mm	1605	1605	1605	1605	1740	1740	1740	1740
D	mm	1010	1010	1420	1420	1420	1420	1420	1420
E	mm	840	840	840	840	840	840	840	840
F	mm	1775	1775	1775	1775	1910	1910	1910	1910
Net weight	kg	225	225	285	360	360	360	385	385
Weight for transport	kg	235	245	300	375	375	375	400	400

MVA MHR

WAY THINK											
		MVAMHR 2241T	MVAMHR 2801T	MVAMHR 3351T	MVAMHR 4001T	MVAMHR 4501T					
Outdoor unit											
A	mm	930	930	1340	1340	1340					
В	mm	765	765	765	765	765					
C	mm	1605	1605	1605	1605	1605					
D	mm	1010	1010	1420	1420	1420					
E	mm	840	840	840	840	840					
F	mm	1775	1775	1775	1775	1775					
Net weight	kg	233	233	302	346	346					
Weight for transport	kg	243	243	317	361	361					

Aermec reserves the right to make any modifications 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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