

OUTDOOR UNITS

Mini MVD V6M Series **R410A** Super DC Inverter (up to 33.5 kW)

ADJUSTED DIMENSIONS

Mini MVD Series with single-phase units from 7.2 kW to 16 kW with only one fan and dual fan units from 20 kW to 33.5 kW.

Model	Max. quantity indoor unit.
80	4
100	6
120	7
140	8
160	9
200	11
224	13
260	15
280	16
335	20

NEW FUNCTIONS

The new V6M series has all the new functions of the centralized controls CCM-180, CCM-270, IMMP-BAC and the GW-MOD and GW-LON gateways.



Mod. 80



Mod. 100 to 160



Mod. 200 to 335

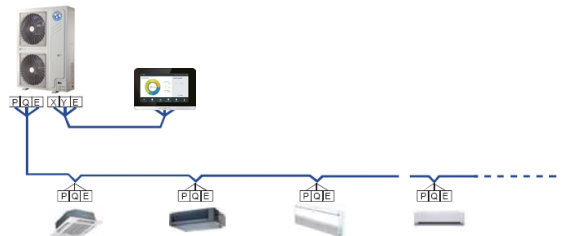
DC INVERTER COMPRESSOR AND FAN MOTORS

All equipments from the range include DC Inverter compressors and fan motors, this way the medium frequency system performance is improved and a more sensitive and effective control is achieved.



SIMPLIFIED CONNECTION

The central control is connected to the outdoor unit and the automatic direction is activated, this way the control can detect all indoor units connected to that outdoor unit. Afterward we can modify the addresses manually with the individual control of each equipment.



AUTOMATIC ADDRESSING

By default, the first time the power supply is activated, the outdoor unit automatically assigns the address to each indoor unit. It is also possible to observe and modify the address of each interior unit from your controller.

OPTIONALS

More information on the optionals in "MUNDODCLIMA CONTROL SYSTEMS"

Centralized controller

Software control



BMS

Wattmeter*



CCM-180A/WS
(CL 97 800)



CCM-270B/WS
(CL 97 802)



IMMP-BAC(A)
(CL 97 826)



IMMP-S(A)
(CL 97 825)



GW-MOD(A)
(CL 97 828)



GW-LON(A)
(CL 97 829)



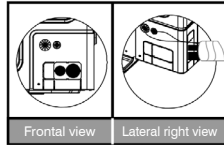
DTS343-3
(CL 97 827)

* Model 80 requires the addition of module CL 94 836

MINI MVD V6M SERIES

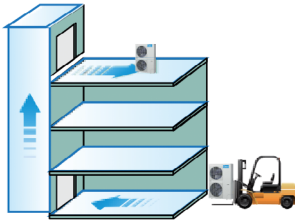
EASY PIPE CONNECTION

It offers four different pipe and cable connection solutions to cater to the different installation needs.



EASY INSTALLATION

The mini MVD can be transported with a forklift. Its small size makes it easier to install and effectively reduces the time and number of personnel needed.



EASY SERVICING

The forced cooling button causes the outdoor unit to operate in cooling mode in any state, so it is very easy to load refrigerant into the system when needed. The selfdiagnosis function detects malfunctions in the main system and displays the type of error and its location. This allows service and maintenance operations to be carried out more efficiently.



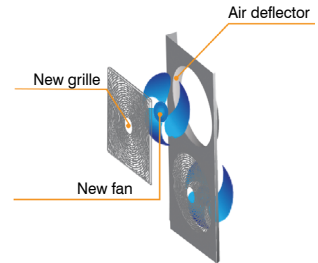
SPACE-SAVING

The mini MVD units are more compact, which means that they will take very little space when installed. They are suitable for small offices, hotels, shops, etc.



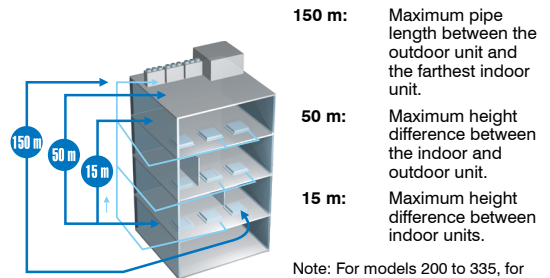
DESIGNED TO ACHIEVE A LOW NOISE LEVEL WHILE OPERATING

The new design of the fan, the air outlet and the deflector allow for a higher air flow and very little noise level during operation.



MAXIMUM PIPE LENGTH

The Mini MVD V6M system supports a maximum pipe length of 150m, with a height difference between the outdoor and indoor units of up to 50m.



Note: For models 200 to 335, for the rest see the following table.

			Model	Max. value (m)
PIPE LENGTH	Total pipe length	Total length	80	50
			100 to 120	65
			140 to 160	100
			200 to 335	150
		Equivalent length	80	35
			100 to 120	45
			140 to 160	65
			200 to 335	100
HEIGHT DIFFERENCE	Height difference between the outdoor unit and indoor units.	Higher outdoor unit	80	40
			100 to 120	50
			140 to 160	70
			200 to 335	110
		Lower outdoor unit	80 to 160	20
			200 to 335	40
			80 to 335	15
	Height difference between indoor units		80	10
			100 to 120	20
			140 to 160	20
			200 to 335	40
			80 to 160	8
			200 to 335	15

MINI MVD V6M SERIES
SPECIFICATIONS


Model			MVD-V6M80W/DN1	MVD-V6M100W/DN1	MVD-V6M120W/DN1	MVD-V6M140W/DN1	MVD-V6M160W/DN1
Code			CL 23 290	CL 23 291	CL 23 292	CL 23 293	CL 23 294
Power Supply		Ph, V, Hz	1N~, 230, 50	1N~, 230, 50	1N~, 230, 50	1N~, 230, 50	1N~, 230, 50
Cooling ⁽¹⁾	Nominal capacity	kW	7.2 (1.5 ~ 8.0)	9.0 (2.0 ~ 10.0)	12.20	14.00	15.50
	Nominal rating	kW	2.18	2.64	4.32	4.56	5.35
	EER		3.30	3.41	2.83	3.07	2.90
	Prated,c (design load)	kW	7.2	9.0	12.2	14.0	15.5
	SEER		5.80	6.20	5.84	5.99	6.09
	Energy labeling		A+	A++	–	–	–
	Annual electricity consumption	kWh/year	436	504	–	–	–
	ηs,c (Seasonal energy efficiency)	%	–	–	230.6	236.6	240.6
Heating ⁽²⁾	Nominal capacity	kW	7.2 (1.6 ~ 9.0)	9.0 (2.1 ~ 12.0)	14.00	16.00	18.00
	Nominal rating	kW	1.82	2.12	3.17	4.08	5.71
	COP		3.92	4.29	4.40	3.92	3.20
	Prated,h (design load)	kW	4.92	6.2	14.0	16.0	18.2
	SCOP		3.80	4.37	4.32	4.46	4.21
	Energy labeling		A	A+	–	–	–
	Annual electricity consumption	kWh/year	1815	1993	–	–	–
	ηs,h (Seasonal energy efficiency)	%	–	–	169.8	175.4	165.4
	Tbiv	°C	-7	-7	-7	-7	-7
Rated / max. intensity		A	17.39 / 21.25	22.95 / 28.75	27.74 / 35	31.56 / 40	31.56 / 40
Connectivity	Connecting capacity (min. ~ max.)	%	50 ~ 130	50 ~ 130	50 ~ 130	50 ~ 130	50 ~ 130
	Number max. indoor units		4	6	7	8	9
Compressor	Brand		GMCC	GMCC	GMCC	GMCC	GMCC
	Type		DC Inverter - Rotating				
	Quantity		1	1	1	1	1
	Model		KTM240D5UMT	KTM240D5UMT	ATF400D64UMT	ATF400D64UMV	ATF400D64UMV
Fan	Type		DC	DC	DC	DC	DC
	Quantity		1	1	1	1	1
	Flow rate	m³/h	3695	5200	5000	5400	5200
Sound pressure (3)		dB (A)	54	54	56	56	56
Sound power (LWA) (3)		dB (A)	65	68	70	71	71
Dimensions (W x H x D)		mm	910 x 712 x 345	950 x 840 x 360	950 x 840 x 360	1040 x 865 x 410	1040 x 865 x 410
Weight		kg	55	72.5	92.0	100.4	104.4
Refrigerant	Type / GWP		R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088
	Quantity	kg / TCO ₂ eq	2.2 / 4.59	2.35 / 4.9	3 / 6.26	3.4 / 7.1	3.8 / 7.93
Pipe length ⁽⁴⁾	Max. vertical (upper outd. unit / lower ind. unit)	m	10 / 10	20 / 20	20 / 20	30 / 20	30 / 20
	Total	m	50	65	65	100	100
Connection pipes ⁽⁵⁾	Liquid	mm (inches)	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
	Gas	mm (inches)	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")	19.1 (3/4")
Electrical connections ⁽⁶⁾	Power wiring / ICP	mm² / A	2 x 4 + T / 25	2 x 4 + T / 32	2 x 6 + T / 40	2 x 6 + T / 40	2 x 6 + T / 40
	Communication cable	mm²	3 x 0.75 (shielded)	3 x 0.75 (shielded)	3 x 0.75 (shielded)	3 x 0.75 (shielded)	3 x 0.75 (shielded)
Operation temp. range	Cooling	°C	-5 ~ 55	-5 ~ 55	-5 ~ 55	-5 ~ 55	-5 ~ 55
	Heating	°C	-15 ~ 27	-15 ~ 27	-15 ~ 27	-15 ~ 27	-15 ~ 27

Note:

(1) Nominal cooling conditions: indoor 27 °C DB, 19 °C WB and outdoor 35 °C DB, for a pipe length of 5 m and a height difference of 0 m.

(2) Nominal heating conditions: indoor 20 °C DB, 15 °C WB and outdoor 7 °C DB, for a pipe length of 5 m and a height difference of 0 m.

(3) Noise level measured in anechoic chamber at 1 m frontal distance and "x" meters high (1 m for 80/105, 1.2 m for 120 / 140 / 160). During operation, these values may be slightly higher due to environmental conditions.

(4) Pipe length when outdoor unit is installed higher than the indoor units.

(5) The specified diameters are for the service valves, this does not mean that the pipe must have this diameter.

(6) Power wiring recommended for L < 20 m, for longer distances it should be recalculated.

*Data measured under EUROVENT EN 14825 conditions, at 100% simultaneity, with indoor cassette units. For further information, please refer to the document "INFORMATION REQUIREMENTS".

**All the data and specifications can be changed without previous notice.

MINI MVD V6M SERIES



SPECIFICATIONS

Model			MVD-V6M200W/DRN1	MVD-V6M224W/DRN1	MVD-V6M260W/DRN1	MVD-V6M280W/DRN1	MVD-V6M335W/DRN1
Code			CL 23 310	CL 23 311	CL 23 312	CL 23 313	CL 23 314
Power Supply		Ph, V, Hz	3N~, 400, 50	3N~, 400, 50	3N~, 400, 50	3N~, 400, 50	3N~, 400, 50
Cooling ⁽¹⁾	Nominal capacity	kW	20.00	22.40	26.00	28.50	33.50
	Nominal rating	kW	4.90	6.83	9.63	12.28	14.38
	EER		4.08	3.28	2.70	2.32	2.33
	Prated,c (design load)	kW	20.00	22.4	26	28.5	33.50
	SEER		7.12	6.76	6.93	6.58	6.77
	ηs,c (Seasonal energy efficiency)	%	281.8	267.4	274.2	260.2	267.8
Heating ⁽²⁾	Nominal capacity	kW	20.00	22.40	26.00	28.50	33.50
	Nominal rating	kW	4.21	4.98	5.53	6.16	8.10
	COP		4.75	4.50	4.70	4.63	4.14
	Prated,h (design load)	kW	20.00	22.4	26	28.50	33.50
	SCOP		4.45	4.50	4.70	4.63	4.05
	ηs,h (Seasonal energy efficiency)	%	175.0	177.0	185.0	182.2	159.0
	Tbiv	°C	-7	-7	-7	-7	-7
Rated / max. intensity		A	19 / 25	19 / 25	20.5 / 25	21 / 25	26.4 / 32
Connectivity	Connecting capacity (min. ~ max.)	%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130
	Number max. indoor units		11	13	15	16	20
Compressor	Brand		GMCC	GMCC	GMCC	GMCC	Mitsubishi Electric
	Type		DC Inverter - Rotating				
	Quantity		1	1	1	1	1
	Model		ATQ580D66UNT	ATQ580D66UNT	ATQ580D66UNT	ATQ580D66UNT	LNB65FAGMC
Fan	Type		DC	DC	DC	DC	DC
	Quantity		2	2	2	2	2
	Flow rate	m³/h	9000	9000	10000	11000	11300
Sound pressure (3)		dB (A)	58	58	59	60	61
Sound power (LWA) (3)		dB (A)	78	78	78	78	81
Dimensions (W x H x D)		mm	1120 x 1558 x 528	1120 x 1558 x 528	1120 x 1558 x 528	1120 x 1558 x 528	1120 x 1558 x 528
Weight		kg	143	143	144	144	157
Refrigerant	Type / GWP		R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088	R410A / 2088
	Quantity	kg / TCO _{eq}	6.5 / 13.6	6.5 / 13.6	6.5 / 13.6	6.5 / 13.6	8.0 / 16.7
Pipe length ⁽⁴⁾	Max. vertical (upper outd. unit / lower ind. unit)	m	50	50	50	50	50
	Total	m	150	150	150	150	150
Connection pipes ⁽⁵⁾	Liquid	mm (inches)	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")
	Gas	mm (inches)	19.1 (3/4")	19.1 (3/4")	22.2 (7/8")	22.2 (7/8")	25.4 (1")
Electrical connections ⁽⁶⁾	Power wiring / ICP	mm² / A	4 x 4 + T / 25	4 x 4 + T / 25	4 x 4 + T / 25	4 x 4 + T / 25	4 x 6 + T / 32
	Communication cable	mm²	3 x 0.75 (shielded)	3 x 0.75 (shielded)	3 x 0.75 (shielded)	3 x 0.75 (shielded)	3 x 0.75 (shielded)
Operation temp. range	Cooling	°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating	°C	-20 ~ 24	-20 ~ 24	-20 ~ 24	-20 ~ 24	-20 ~ 24

Note:

⁽¹⁾ Nominal cooling conditions: indoor 27 °C DB, 19 °C WB and outdoor 35 °C DB, for pipe length of 7.5 m and a height difference of 0 m.

⁽²⁾ Nominal cooling conditions: indoor 20 °C DB, 15 °C WB and outdoor 7 °C DB, pipe length of 7.5 m and a height difference of 0 m.

⁽³⁾ Sound pressure level measured in a semi-anechoic chamber at 1 m frontal distance and 1.3 m high.

⁽⁴⁾ Pipe lengths when the outdoor unit is installed higher than the indoor units.

⁽⁵⁾ The specified diameters are for the service valves. This does not mean that the pipe must have this diameter.

⁽⁶⁾ Recommended power wiring for L < 20 m, for longer distances it should be recalculated.

* Data measured under EUROVENT EN 14825 conditions, at 100% simultaneity.

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