

**SAMSUNG**  
Climate Solutions

VRF



**DVM S Eco Heat Pump (2-Pipe) Mini VRF**

# DVM S Eco Heat Pump (2-Pipe) Mini VRF

- Horizontal discharge and rear suction by means of one (4–5 HP) or two (6–12 HP) propeller BLDC Inverter fan(s).
- Each module houses one compressor: Twin BLDC Rotary (4–6 HP) or Inverter Scroll with Flash Injection technology (8–12 HP).

- Compressor micro frequency control with 0.01 Hz step.
- Night Silent Mode available.
- Eurovent certified and ErP (Ecodesign) compliant.
- Four-way direction piping connection.

## Specifications



Model			AM040BXMDER/EU	AM050BXMDER/EU	AM040BXMDER/EU	AM050BXMDER/EU	AM060BXMDER/EU
<b>Electrical</b>							
Power Supply		Φ, #, V, Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz
Minimum SSC value		MVA	Equipment complying with IEC61000-3-12	Equipment complying with IEC61000-3-12	Equipment complying with IEC61000-3-12	Equipment complying with IEC61000-3-12	Equipment complying with IEC61000-3-12
MCA		A	24	27	22	24	30
MFA		A	32	40	25	32	40
Interconnecting Communication Cable		mm <sup>2</sup>	Screened 0.75-1.5mm <sup>2</sup> , 2 Core, F1 F2 Connection				
<b>Performance<sup>1</sup></b>							
Horsepower		HP	4	5	4	5	6
Capacity (Rated)	Nominal Cooling Capacity	kW	12.1	14	12.1	14	15.5
	Nominal Heating Capacity	kW	12.1	14	12.1	14	15.5
	Max Heating Capacity	kW	12.5	16	13.5	16	18
Operating Temperature Range	Cooling	°C	-5.0 – 48.0 °C	-5.0 – 48.0 °C	-5.0 – 48.0 °C	-5.0 – 48.0 °C	-5.0 – 48.0 °C
	Heating	°C	-20.0 – 24.0 °C	-20.0 – 24.0 °C	-25.0 – 26.0 °C	-25.0 – 26.0 °C	-25.0 – 26.0 °C
Maximum quantity of connectable indoor units		ea	6	8	8	9	10
<b>Energy Efficiency<sup>2</sup></b>							
Rated Efficiency	EER (Nominal Cooling)	W/W	3.1	2.7	3.13	2.8	2.7
	COP (Nominal Heating)	W/W	3.75	3.4	3.98	3.66	3.5
Seasonal Efficiency (Ducted)	SEER	W/W	7.3	7	7.3	7.05	7.2
	SCOP	W/W	4.2	4.4	4.6	4.7	4.9
	η <sub>s,c</sub>	%	289	277	289	279	285
	η <sub>s,h</sub>	%	165	173	181	185	193
Seasonal Efficiency (Cassettes)	SEER	W/W	7.6	7.35	7.9	7.4	7.75
	SCOP	W/W	4.2	4.4	4.65	4.65	4.9
	η <sub>s,c</sub>	%	301	291	313	293	307
	η <sub>s,h</sub>	%	165	173	183	183	193
<b>Fan</b>							
Type		-	Propeller	Propeller	Propeller	Propeller	Propeller
Discharge Direction			Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Number of Fans		ea	1	1	2	2	2
Fan Motor	Model	-	BLDC	BLDC	BLDC	BLDC	BLDC
	Output x n	W	125 x 1	139x1	125 x 2	125 x 2	125 x 2
Airflow Rate		m <sup>3</sup> /min	64	70	100	100	100
		l/s	1067	1167	1667	1667	1667
Static Pressure	Max	Pa	29.4	29.4	29.4	29.4	29.4
<b>Compressor</b>							
Type		-	Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary
Output x n		kW	4.04 x 1	4.04 x 1	4.04 x 1	4.04 x 1	4.04 x 1
<b>Piping Connections</b>							
Liquid Pipe		ø, mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Gas Pipe		ø, mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)
<b>Refrigerant</b>							
Type			R410A (Fluorinated greenhouse gas, GWP=2088)				
Factory Charging		kg	2	2.5	3.2	3.2	3.3
		tCO <sub>2</sub> e	4.18	5.22	6.68	6.68	6.89
<b>Sound</b>							
Sound Pressure Level	Cooling	dB(A)	53	56	51	52	53
	Heating	dB(A)	56	58	55	55	55
Sound Power Level		dB(A)	70	73	68	69	70
<b>Dimensions</b>							
Net Weight		kg	79.0	84.0	97.0	97.0	100.0
Net Dimensions	W x H x D	mm	940 x 998 x 330	940 x 998 x 330	940 x 1210 x 330	940 x 1210 x 330	940 x 1210 x 330

<sup>1</sup> Performances are based on the following test conditions.  
 - Cooling: Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB  
 - Heating: Indoor temperature 20°CDB, 15°CWB, Outdoor temperature 7°CDB, 6°CWB  
 - Equivalent refrigerant pipe length 7.5m, Level differences 0m

<sup>2</sup> Efficiencies shown are according to EU No 2016/2281 (LOT 21) Ecodesign requirements for heat pumps/air conditioners

# Specifications



Model			AM040BXMMDGR/EU	AM050BXMMDGR/EU	AM060BXMMDGR/EU	AM080BXMWGH/EU	AM100BXMWGH/EU	AM120BXMWGH/EU
<b>Electrical</b>								
Power Supply		Φ, #, V, Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz
Minimum SSC value		MVA	3.9	3.9	3.9	3.4	4.6	5.1
MCA		A	16.1	16.1	16.1	18	21.5	23.5
MFA		A	20	20	20	25	30	30
Interconnecting Communication Cable		mm <sup>2</sup>	Screened 0.75-1.5mm <sup>2</sup> , 2 Core, F1 F2 Connection					
<b>Performance<sup>1</sup></b>								
Horsepower		HP	4	5	6	8	10	12
Capacity (Rated)	Nominal Cooling Capacity	kW	12.1	14	15.5	22.4	28	33.6
	Nominal Heating Capacity	kW	12.1	14	15.5	22.4	28	33.6
	Max Heating Capacity	kW	13.5	16	18	25	31.5	37.5
Operating Temperature Range	Cooling	°C	-5.0 - 48.0 °C	-5.0 - 48.0 °C	-5.0 - 48.0 °C	-5.0 - 48.0 °C	-5.0 - 52.0 °C	-5.0 - 52.0 °C
	Heating	°C	-25.0 - 26.0 °C	-25.0 - 26.0 °C	-25.0 - 26.0 °C	-20.0 - 24.0 °C	-25.0 - 24.0 °C	-25.0 - 24.0 °C
Maximum quantity of connectable indoor units		ea	8	9	10	13	18	21
<b>Energy Efficiency<sup>2</sup></b>								
Rated Efficiency	EER (Nominal Cooling)	W/W	3.13	2.8	2.7	2.25	2.2	2.35
	COP (Nominal Heating)	W/W	3.98	3.66	3.5	3.8	3.6	3.65
Seasonal Efficiency (Ducted)	SEER	W/W	7.3	7.05	7.2	6.05	6.3	6.3
	SCOP	W/W	4.6	4.7	4.9	4.2	4.2	4.6
	η <sub>s,c</sub>	%	289	279	285	239	249	249
	η <sub>s,h</sub>	%	181	185	193	165	165	181
Seasonal Efficiency (Cassettes)	SEER	W/W	7.9	7.4	7.75	6.3	6.4	6.5
	SCOP	W/W	4.65	4.65	4.9	4.25	4.15	4.5
	η <sub>s,c</sub>	%	313	293	307	249	253	257
	η <sub>s,h</sub>	%	183	183	193	167	163	177
<b>Fan</b>								
Type		-	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Discharge Direction			Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Number of Fans		ea	2	2	2	2	2	2
Fan Motor	Model	-	BLDC	BLDC	BLDC	BLDC	BLDC	BLDC
	Output x n	W	125 x 2	125 x 2	125 x 2	139x 2	244 x 2	244 x 2
Airflow Rate		m <sup>3</sup> /min	100	100	100	135	165	166
		l/s	1667	1667	1667	2250	2750	2766.7
Static Pressure	Max	Pa	29.4	29.4	29.4	29.4	29.4	29.4
<b>Compressor</b>								
Type		-	Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary	Scroll Inverter	Scroll Inverter	Scroll Inverter
Output x n		kW	4.04 x 1	4.04 x 1	4.04 x 1	5.18 x 1	6.39 x 1	6.39 x 1
<b>Piping Connections</b>								
Liquid Pipe		ø, mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	12.70 (1/2)
Gas Pipe		ø, mm (inch)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)	19.05 (3/4)	22.22 (7/8)	28.58 (1-1/8)
<b>Refrigerant</b>								
Type			R410A (Fluorinated greenhouse gas, GWP=2088)					
Factory Charging		kg	3.2	3.2	3.3	3.7	4.3	4.8
		tCO <sub>2</sub> e	6.68	6.68	6.89	7.73	8.98	10.02
<b>Sound</b>								
Sound Pressure Level	Cooling	dB(A)	51	52	53	58	58	60
	Heating	dB(A)	55	55	55	59	64	64
Sound Power Level		dB(A)	68	69	70	73	74	76
<b>Dimensions</b>								
Net Weight		kg	95.0	95.0	98.0	135	155.0	162.0
Net Dimensions	W x H x D	mm	940 x 1210 x 330	940 x 1210 x 330	940 x 1210 x 330	940 x 1420 x 330	940 x 1630 x 460	940 x 1630 x 460

<sup>1</sup> Performances are based on the following test conditions.  
 - Cooling: Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB  
 - Heating: Indoor temperature 20°CDB, 15°CWB, Outdoor temperature 7°CDB, 6°CWB  
 - Equivalent refrigerant pipe length 7.5m, Level differences 0m

<sup>2</sup> Efficiencies shown are according to EU No 2016/2281 (LOT 21) Ecodesign requirements for heat pumps/air conditioners