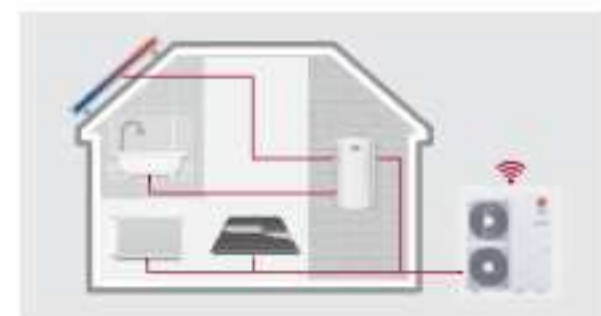


THEIRMA VTM PRODUCTS





THERMA V R32 MONOBLOC S



Energy label



* 16 kW 10 model.
* A+++ to D scale.

R32 Monobloc S Introduction

The Therma V R32 Monobloc S is the 2nd generation of LG's R32 Monobloc series. As implied by "silence" and "supreme," it boasts reduced noise level and best performance in the Therma V series. Combining the indoor and outdoor as one module, it's also connected by only water piping eliminating the need for refrigerant piping. Furthermore, hydronic components like the plate heat exchanger, expansion tank, water pump, flow sensor, pressure sensor, air vent valves, and safety valve are conveniently situated inside the unit. The R32 Monobloc S provides excellent heating performance, especially at low ambient temperature, while producing lower carbon emissions with R32.

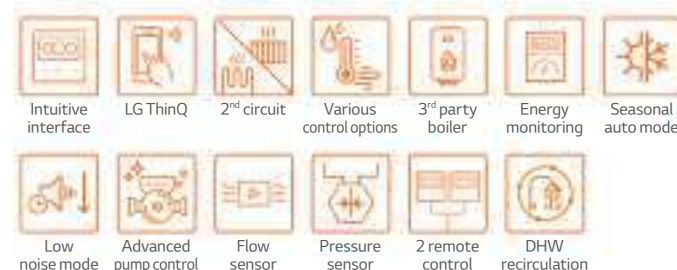
Key Components



Excellent performance & efficiency



User convenience



Easy installation & maintenance



* Detailed description for each function is presented on page 44 ~ 54.

Quiet Mark Certified - creating healthy soundscapes for living spaces

Quiet Mark is the international award for high-performance technologies and solutions battling everyday unwanted noise. It shows that R32 Monobloc S is one of the quietest, or most technically effective products in noise reduction or acoustic properties available on the current market in its category.

Therma V R32 Monobloc S has received the Quiet Mark certification since it has been designed to reach lower acoustic levels in order to meet homeowner expectations in urban areas.



Certified products*:

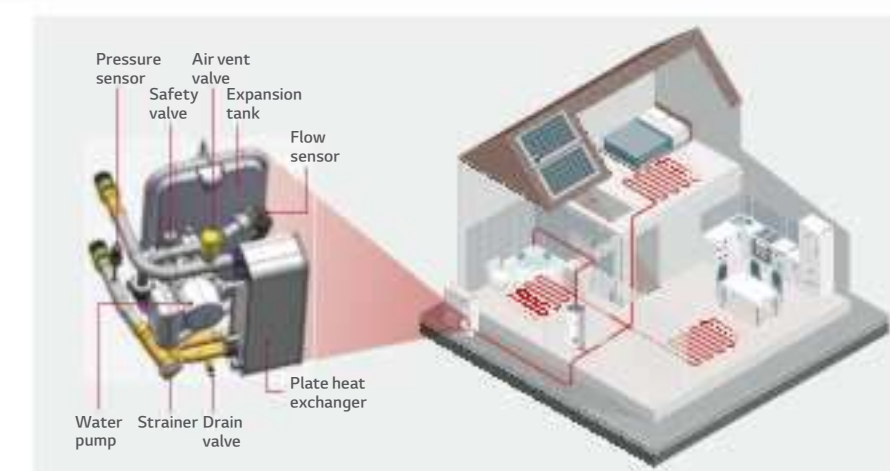
HM051MR U44 / HM071MR U44 / HM091MR U44
HM093MR U44 / HM121MR U34 / HM123MR U34

* This certification is valid for UK & EU territories only.

Monobloc Concept

R32 Monobloc S is an all-in-one concept, with its reduced weight allowing quicker and easier installations.

- Additional hydronic components are included in the package
- Easier and quicker installation without refrigerant piping work
- The best solution when space heating only is needed



Reduced Noise Level

R32 Monobloc S can be installed at the minimum of 4 m away¹⁾ from neighboring houses while complying with noise-related requirements in most European countries, including Germany. (based on 9 kW model & low noise mode)

Description		Germany	Austria	Switzerland	Netherlands
Sound pressure threshold	Day time	50 dB (A) (06:00 ~ 22:00)	40 dB (A) (06:00 ~ 19:00)	40 dB (A) (07:00 ~ 19:00)	45 dB (A) (07:00 ~ 19:00)
	Evening	-	35 dB (A) (19:00 ~ 22:00)	-	-
	Night time	35 dB (A) (22:00 ~ 06:00)	30 dB (A) (22:00 ~ 06:00)	35 dB (A) (19:00 ~ 07:00)	40 dB (A) (19:00 ~ 07:00)



1) Minimum distance to be away from a neighboring property may vary depending on installation conditions and noise regulations in individual countries.
2) Sound pressure level is converted from sound power level of low noise mode based on a tonality penalty of 0 dB and installation in free-field. The directivity index (Q) is assumed as 2.

R32 Monobloc S

HM051MR U44
HM071MR U44
HM091MR U44
HM093MR U44



Features

- All-in-one outdoor unit
- SCOP up to 4.55 (average climate / low temp. application): 
- SCOP up to 3.20 (average climate / mid temp. application): 
- COP up to 4.70 (outdoor air 7°C / leaving water 35°C)
- 100 % heating capacity at -15°C OAT (@ LWT 35°C)
- Low sound level allowing high installation location flexibility
- Wide operation range (ambient: -25 ~ 35°C / water side: 15 ~ 65°C)
- Built-in water flow & pressure sensors to monitor real-time water circuit
- R32 refrigerant with reduced Global Warming Potential (GWP)
- R1 Compressor
- Improved heat exchanger design (new Black Fin)
- LG ThinQ
- Keymark / EHPA (for Germany, Austria and Switzerland) / MCS / Eurovent / Quiet Mark certification

* The certifications for HM093MR U44 are under development except for MCS certification.

Model line-up

Capacity	Unit	Model name		
		Capacity (kW)		
		5.5	7.0	9.0
1 Phase model 220 ~ 240 V, 1 Ø, 50 Hz	Monobloc unit	HM051MR U44	HM071MR U44	HM091MR U44
3 Phase model 380 ~ 415 V, 3 Ø, 50 Hz		-	-	HM093MR U44

Seasonal energy

Description			Unit	HM051MR U44	HM071MR U44	HM091MR U44 HM093MR U44
Space heating (according to EN14825)	Average climate water outlet 35°C	SCOP	-	4.46	4.48	4.55
		Seasonal space heating efficiency (η_s)	%	175	176	179
		Seasonal space heating eff. class (A+++ to D Scale)	-	A+++	A+++	A+++
	Average climate water outlet 55°C	SCOP	-	3.20	3.20	3.20
		Seasonal space heating efficiency (η_s)	%	125	125	125
		Seasonal space heating eff. class (A+++ to D Scale)	-	A++	A++	A++

Nominal capacity and nominal power input

Description		OAT ¹⁾ (DB)	LWT ²⁾ (DB)	Unit	HM051MR U44	HM071MR U44	HM091MR U44 HM093MR U44
Nominal capacity	Heating	7°C	35°C	kW	5.50	7.00	9.00
		7°C	55°C		5.50	5.50	5.50
		2°C	35°C		4.40	5.60	6.80
	Cooling	35°C	18°C		5.50	7.00	9.00
		35°C	7°C		5.50	7.00	9.00
Nominal power input	Heating	7°C	35°C	kW	1.17	1.49	1.96
		7°C	55°C		2.04	2.04	2.04
		2°C	35°C		1.22	1.58	1.94
	Cooling	35°C	18°C		1.17	1.56	2.14
		35°C	7°C		1.67	2.19	2.90
		7°C	35°C		4.70	4.70	4.60
COP	Heating	7°C	55°C	W/W	2.70	2.70	2.70
		2°C	35°C		3.60	3.55	3.50
		35°C	18°C		4.70	4.50	4.20
EER	Cooling	35°C	7°C	W/W	3.30	3.20	3.10

1) OAT: Outdoor Air Temperature

2) LWT: Leaving Water Temperature

Product specification

Technical specification				Unit	HM051MR U44	HM071MR U44	HM091MR U44 HM093MR U44	
Water side	Operation range (leaving water temperature)	Heating	Min. ~ Max.	°C DB	15 ~ 65			
		Cooling			5 ~ 27 (16 ~ 27) ¹⁾			
		DHW			15 ~ 80 ²⁾			
	Piping connections	Water Circuit	Inlet	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)			
			Outlet	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)			
Rated water flow rate at LWT 35°C				LPM	15.8	20.1	25.9	
Refrigerant side	Operation range (outdoor temperature)	Heating	Min ~ Max	°C DB	-25 ~ 35			
		Cooling			5 ~ 48			
	Compressor	Quantity		EA	1			
		Type			-	Hermetic sealed scroll		
	Refrigerant	Type			-	R32		
		GWP (Global Warming Potential)		-	675			
		Precharged amount		g	1,400			
		t-CO2 eq		-	0.945			
Sound power level		Heating	Rated	dB(A)	57			
			Low noise mode		54	55		
Sound pressure level (at 5 m)		Heating	Rated	dB(A)	35			
			Low noise mode		32	33		
Dimensions		Unit	W × H × D	mm	1,239 × 834 × 330			
Weight		Unit		kg	89.5		1 Ø: 89.5 / 3 Ø: 92.5	
Exterior		Color / RAL code		-	Warm gray / RAL 7044			
Power supply		Voltage, phase, frequency		V, Ø, Hz	220-240, 1, 50		220-240, 1, 50 380-415, 3, 50	
		Rated running current	Heating	A	5.2	6.6	1 Ø: 8.7 / 3 Ø: 2.9	
			Cooling	A	5.2	6.9	1 Ø: 9.5 / 3 Ø: 3.2	
		Recommended circuit breaker		A		16	20	1 Ø: 25 / 3 Ø: 16
Wiring connections		Power supply cable (included earth, H07RN-F)		mm² x cores	4.0 x 3 C		1 Ø: 4.0 x 3 C / 3 Ø: 2.5 x 5 C	

1) When a fan coil unit is not used.

2) DHW 55 ~ 80°C Operating is available only when the booster heater is operating.

Note

1. Due to our policy of innovation, some specifications may be changed without notification.

2. Wiring cable size must comply with the applicable local and national codes

Especially the power cable and circuit breaker should be selected in accordance with that.

3. Sound power level is measured on the rated condition in accordance with ISO 9614 standard.

Sound pressure level is converted from sound power level based on a tonality penalty of 0 dB and installation in free-field. The directivity index (Q) is assumed as 2.

Therefore, these values can be increased owing to ambient conditions during operation.

Rated sound power level is in accordance with EN12102-1 under condition of EN14825.

4. Performances are in accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions acc. ErP regulation
 Rated conditions: ambient temperature 37°C DB / 6°C WB / 11 Wt 25°C

5. This product contains fluorinated greenhouse gases.

6. All installation sites must be equipped with an earth

b. All installation sites must be equipped with an earth leakage circuit breaker (ELCB).

Performance Table for Heating Operation

Maximum heating capacity (including defrost effect)

HM051MR U44

[illegible]

HM071MR U44

[illegible]

HM091MR U44 / HM093MR U44

[illegible]

Note

1. DB: Dry Bulb Temperature (°C), LWT: Leaving Water Temperature (°C)
2. Direct interpolation is permissible. Do not extrapolate.
3. Measuring procedure follows EN-14511.
 - Rated values are based on standard conditions and can be found on specifications.
 - Above table values may not be matched according to installation conditions. Except for rated values, the performance is not guaranteed
 - The rating might slightly vary depending on test standards or countries.
4. The shaded areas are not guaranteed continuous operation.

Performance Table for Cooling Operation

Maximum cooling capacity

HM051MR U44

Outdoor temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	Capacity (kW)						
10°C DB	5.50	5.50	5.50	5.50	5.50	5.50	5.50
20°C DB	5.50	5.50	5.50	5.50	5.50	5.50	5.50
30°C DB	5.50	5.50	5.50	5.50	5.50	5.50	5.50
35°C DB	5.50	5.50	5.50	5.50	5.50	5.50	5.50
40°C DB	5.29	5.32	5.36	5.38	5.41	5.43	5.45
45°C DB	5.09	5.15	5.21	5.25	5.31	5.36	5.40

HM071MR U44

Outdoor temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	Capacity (kW)						
10°C DB	7.00	7.00	7.00	7.00	7.00	7.00	7.00
20°C DB	7.00	7.00	7.00	7.00	7.00	7.00	7.00
30°C DB	7.00	7.00	7.00	7.00	7.00	7.00	7.00
35°C DB	7.00	7.00	7.00	7.00	7.00	7.00	7.00
40°C DB	6.36	6.45	6.55	6.61	6.71	6.77	6.84
45°C DB	5.71	5.82	5.92	5.99	6.10	6.17	6.24

HM091MR U44 / HM093MR U44

Outdoor temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	Capacity (kW)						
10°C DB	9.00	9.00	9.00	9.00	9.00	9.00	9.00
20°C DB	9.00	9.00	9.00	9.00	9.00	9.00	9.00
30°C DB	9.00	9.00	9.00	9.00	9.00	9.00	9.00
35°C DB	9.00	9.00	9.00	9.00	9.00	9.00	9.00
40°C DB	7.66	7.66	7.65	7.65	7.65	7.65	7.65
45°C DB	6.31	6.35	6.39	6.42	6.45	6.48	6.51

Note

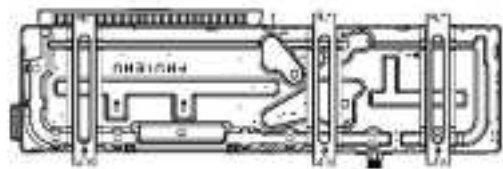
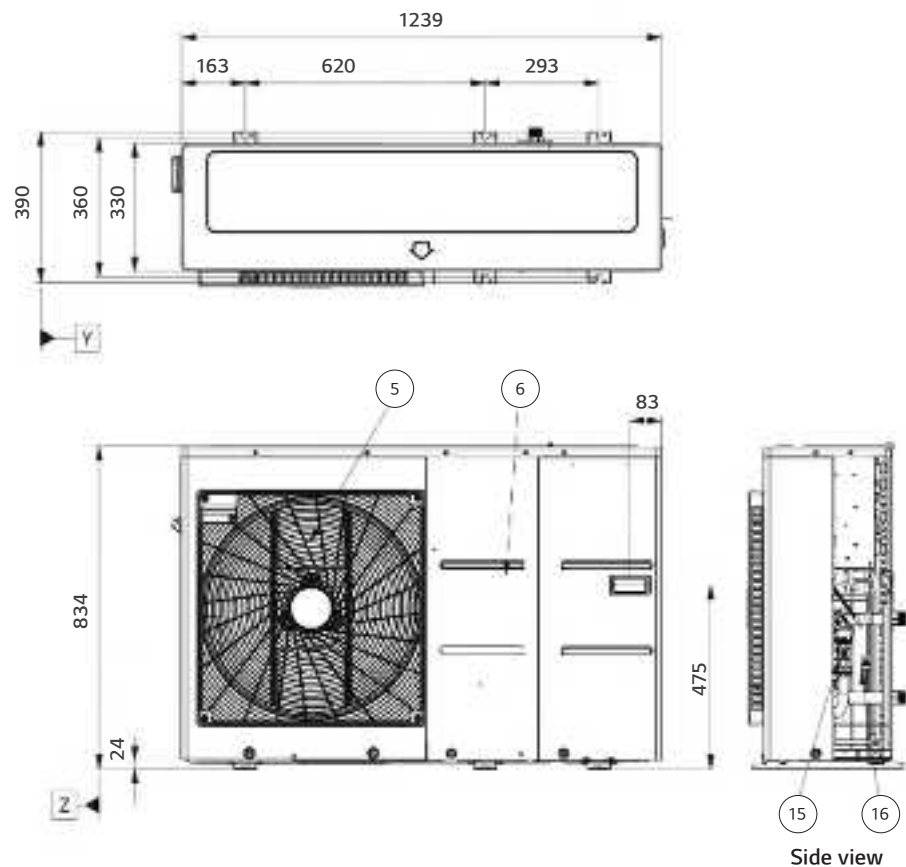
1. DB: Dry Bulb Temperature (°C), LWT: Leaving Water Temperature (°C)
 2. Direct interpolation is permissible. Do not extrapolate.
 3. Measuring procedure follows EN-14511.
 • Rated values are based on standard conditions and can be found on specifications.
 • Above table values may not be matched according to installation conditions. Except for rated values, the performance is not guaranteed.
 • The rating might slightly vary depending on test standards or countries.
 4. The shaded areas are not guaranteed continuous operation.

Drawings

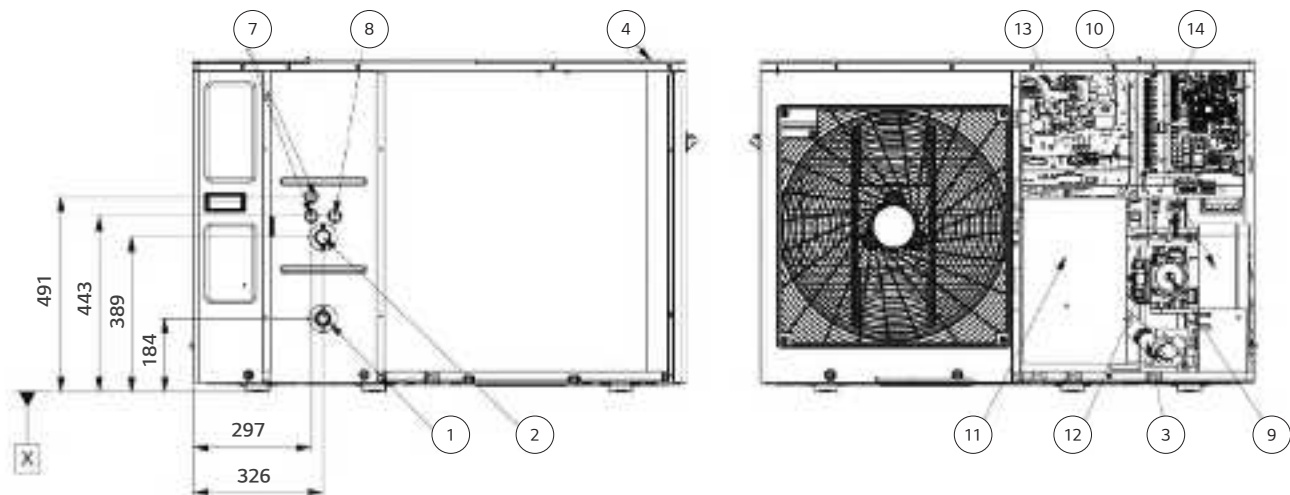
Category	Unit	Model name		
		Capacity (kW)		
		5.5	7.0	9.0
1 Phase model 220 ~ 240 V, 1 Ø, 50 Hz	Monobloc unit	HM051MR U44	HM071MR U44	HM091MR U44
3 Phase model 380 ~ 415 V, 3 Ø, 50 Hz		-	-	HM093MR U44

HM051MR U44 / HM071MR U44 / HM091MR U44 / HM093MR U44

[Unit: mm]



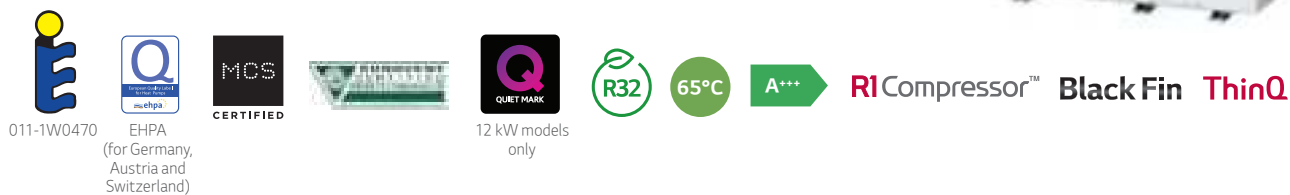
3D view



No.	Part name	Description
1	Entering water pipe	Male PT 1" according to ISO 7-1 (tapered pipe threads)
2	Leaving water pipe	Male PT 1" according to ISO 7-1 (tapered pipe threads)
3	Strainer	Filtering and stacking particles inside circulating water
4	Top cover	-
5	Front panel	-
6	Side panel	-
7	Low voltage	Communication cable hole
8	Unit power	Power cable hole
9	Water pump	To circulate water inside the system
10	Plate heat exchanger	Heat exchange between refrigerant and water
11	Compressor shield panel	-
12	Safety valve	Open at water pressure 3 bar
13	Indoor control box	Indoor PCB and terminal blocks
14	Outdoor control box	Outdoor PCB and terminal blocks
15	Flow sensor	To measure the water flow rate (5-80 LPM)
16	Pressure sensor	To measure the water pressure (0-2 MPa)

R32 Monobloc S

HM121MR U34
HM141MR U34
HM161MR U34
HM123MR U34
HM143MR U34
HM163MR U34



Features

- All-in-one outdoor unit
- SCOP up to 4.67 (average climate / low temp. application): A+++
SCOP up to 3.47 (average climate / mid temp. application): A++
- COP up to 4.90 (outdoor air 7°C / leaving water 35°C)
- 100 % heating capacity at -15°C OAT (@ LWT 35°C, except for 16 kW model)
- Low sound level allowing high installation location flexibility
- Wide operation range (ambient: -25 ~ 35°C / water side: 15 ~ 65°C)
- Built-in water flow & pressure sensors to monitor real-time water circuit
- R32 refrigerant with reduced Global Warming Potential (GWP)
- R1 Compressor
- Improved heat exchanger design (new Black Fin)
- LG ThinQ
- Keymark / EHPA (for Germany, Austria and Switzerland) / MCS / Eurovent / Quiet Mark (12 kW only) certification

Model line-up

Capacity	Unit	Model name		
		Capacity (kW)		
		12.0	14.0	16.0
1 Phase model 220 ~ 240 V, 1 Ø, 50 Hz	Monobloc unit	HM121MR U34	HM141MR U34	HM161MR U34
3 Phase model 380 ~ 415 V, 3 Ø, 50 Hz		HM123MR U34	HM143MR U34	HM163MR U34

Seasonal energy

Description			Unit	HM121MR U34 (1 Ø)	HM141MR U34 (1 Ø)	HM161MR U34 (1 Ø)
				HM123MR U34 (3 Ø)	HM143MR U34 (3 Ø)	HM163MR U34 (3 Ø)
Space heating (according to EN14825)	Average climate water outlet 35°C	SCOP	-	4.67	4.62	4.53
		Seasonal space heating efficiency (η_s)	%	184	182	178
		Seasonal space heating eff. class (A+++ to D Scale)	-	A+++	A+++	A+++
	Average climate water outlet 55°C	SCOP	-	3.47	3.46	3.45
		Seasonal space heating efficiency (η_s)	%	136	135	135
		Seasonal space heating eff. class (A+++ to D Scale)	-	A++	A++	A++

PRODUCT SPECIFICATION

Nominal capacity and nominal power input

Description		OAT ¹⁾ (DB)	LWT ²⁾ (DB)	Unit	HM121MR U34 (1 Ø)	HM141MR U34 (1 Ø)	HM161MR U34 (1 Ø)
					HM123MR U34 (3 Ø)	HM143MR U34 (3 Ø)	HM163MR U34 (3 Ø)
Nominal capacity	Heating	7°C	35°C	kW	12.00	14.00	16.00
		7°C	55°C		11.00	11.50	12.00
		2°C	35°C		11.00	12.00	13.80
	Cooling	35°C	18°C		12.00	14.00	16.00
		35°C	7°C		12.00	14.00	16.00
Nominal power input	Heating	7°C	35°C	kW	2.45	2.92	3.40
		7°C	55°C		3.79	4.04	4.29
		2°C	35°C		3.01	3.31	3.83
	Cooling	35°C	18°C		2.53	3.26	4.00
		35°C	7°C		3.64	4.24	5.16
COP	Heating	7°C	35°C	W/W	4.90	4.80	4.70
		7°C	55°C		2.90	2.85	2.80
		2°C	35°C		3.65	3.63	3.60
		35°C	18°C		4.75	4.30	4.00
EER	Cooling	35°C	7°C	W/W	3.30	3.30	3.10
		35°C	7°C		3.30	3.30	3.10

1) OAT : Outdoor Air Temperature
2) LWT : Leaving Water Temperature

Product specification

Technical specification				Unit	HM121MR U34	HM141MR U34	HM161MR U34	HM123MR U34	HM143MR U34	HM163MR U34	
Water side	Operation range (leaving water temperature)	Heating	Min. ~ Max.	°C DB	15 ~ 65						
		Cooling			5 ~ 27 (16 ~ 27) ¹⁾						
		DHW			15 ~ 80 ²⁾						
	Piping connections	Water circuit	Inlet	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)						
				Outlet	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)					
Rated water flow rate at LWT 35°C				LPM	34.5	40.3	46.0	34.5	40.3	46.0	
Refrigerant side	Operation range (outdoor temp.)	Heating	Min. ~ Max.	°C DB	-25 ~ 35						
		Cooling			5 ~ 48						
	Compressor	Quantity			EA	1					
		Type			-	Hermetic sealed scroll					
	Refrigerant	Type			-	R32					
		GWP (Global Warming Potential)			-	675					
		Precharged amount			g	2,000					
		t-CO ₂ eq			-	1.350					
Sound power level		Heating	Rated	dB(A)	60	61		60	61		
			Low noise mode		56	57		56	57		
Sound pressure level (at 5m)		Heating	Rated	dB(A)	38	39		38	39		
			Low noise mode		34	35		34	35		
Dimensions		Unit	W x H x D	mm	1,239 x 1,380 x 330						
Weight		Unit		kg	119.1						
Exterior		Color / RAL code			-	Warm gray / RAL 7044					
Power supply		Voltage, phase, frequency		V, Ø, Hz	220-240, 1, 50			380-415, 3, 50			
		Rated running current	Heating	A	10.9	12.9	15.1	3.6	4.3	5.0	
			Cooling	A	11.2	14.4	17.7	3.7	4.8	5.9	
		Recommended circuit breaker		A			40			16	
Wiring connections		Power supply cable (included earth, H07RN-F)		mm ² x cores	6.0 x 3 C			4.0 x 5 C			

1) When a fan coil unit is not used.
2) DHW 55 ~ 80°C Operating is available only when the booster heater is operating.

- Note
- Due to our policy of innovation, some specifications may be changed without notification.
 - Wiring cable size must comply with the applicable local and national codes.
Especially the power cable and circuit breaker should be selected in accordance with that.
 - Sound power level is measured on the rated condition in accordance with ISO 9614 standard.
Sound pressure level is converted from sound power level based on a tonality penalty of 0 dB and installation in free-field. The directivity index (Q) is assumed as 2.
Therefore, these values can be increased owing to ambient conditions during operation.
Rated sound power level is in accordance with EN12102-1 under condition of EN14825.
 - Performances are in accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions acc. ErP regulation
• Rated running current: Outdoor Temp. 7°C DB / 6°C WB, LWT 35°C
 - This product contains fluorinated greenhouse gases.
 - All installation sites must be equipped with an earth leakage circuit breaker (ELCB).

Maximum heating capacity (including defrost effect)

[illegible][illegible][illegible]

- Rated values are based on standard conditions and can be found on specifications.
- Above table values may not be matched according to installation conditions. Except for rated values, the performance is not guaranteed.
- The rating might slightly vary depending on test standards or countries.

Maximum cooling capacity

Outdoor temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	Capacity (kW)						
10°C DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
20°C DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
30°C DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
35°C DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
40°C DB	11.05	11.19	11.33	11.43	11.57	11.67	11.76
45°C DB	10.10	10.37	10.64	10.83	11.10	11.28	11.46

Outdoor temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	Capacity (kW)						
10°C DB	12.50	12.80	13.10	13.30	13.60	13.80	14.00
20°C DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
30°C DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
35°C DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
40°C DB	12.35	12.60	12.84	13.01	13.26	13.42	13.59
45°C DB	10.69	11.19	11.69	12.02	12.51	12.84	13.17

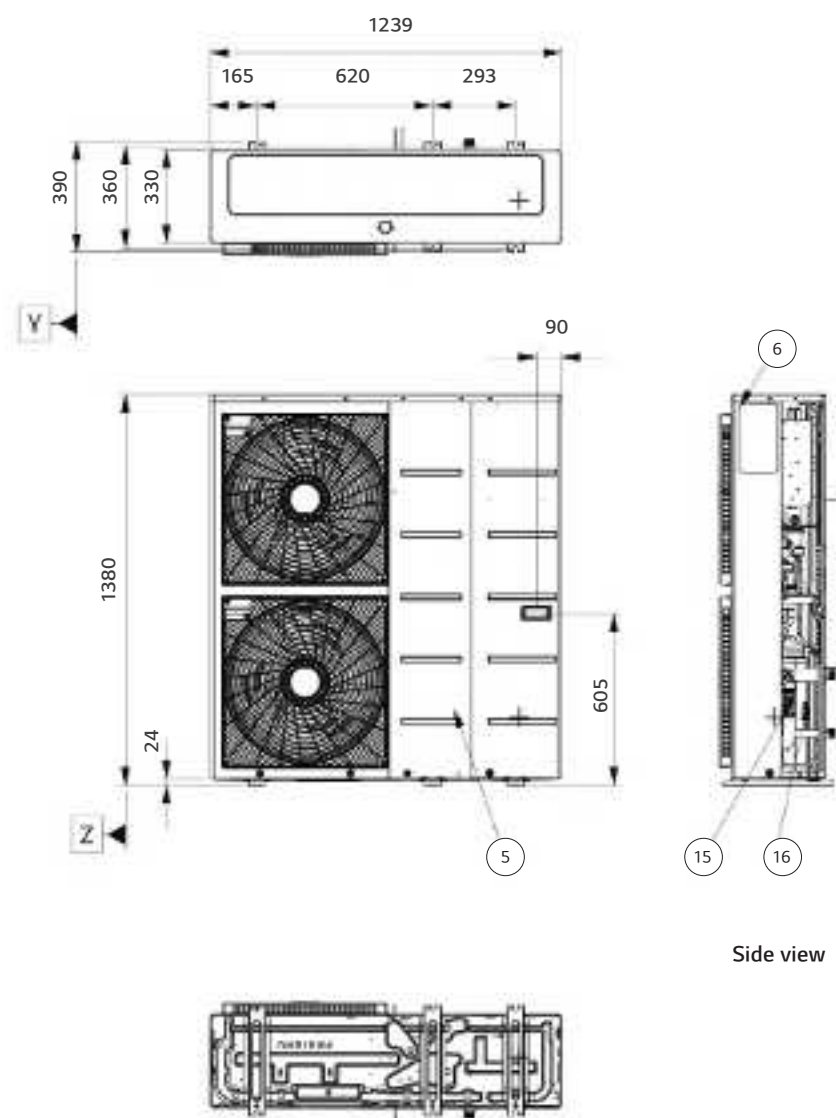
Outdoor temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	Capacity (kW)						
10°C DB	13.00	13.60	14.20	14.60	15.20	15.60	16.00
20°C DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
30°C DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
35°C DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
40°C DB	13.60	13.96	14.32	14.56	14.92	15.16	15.40
45°C DB	11.20	11.76	12.32	12.69	13.25	13.62	14.00

- Rated values are based on standard conditions and can be found on specifications.
- Above table values may not be matched according to installation conditions. Except for rated values, the performance is not guaranteed.
- The rating might slightly vary depending on test standards or countries.

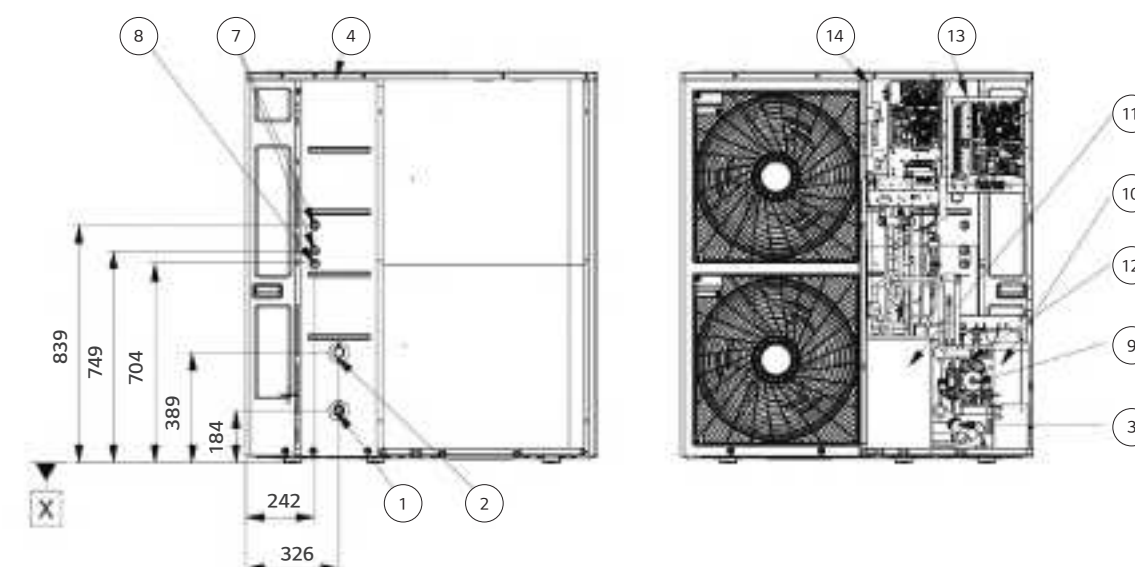
Drawings

Category	Unit	Model name		
		Capacity (kW)		
		12.0	14.0	16.0
1 Phase model 220 ~ 240 V, 1 Ø, 50 Hz	Monobloc unit	HM121MR U34	HM141MR U34	HM161MR U34
3 Phase model 380 ~ 415 V, 3 Ø, 50 Hz		HM123MR U34	HM143MR U34	HM163MR U34

[Unit: mm]



3D view



No.	Part name	Description
1	Entering water pipe	Male PT 1" according to ISO 7-1 (tapered pipe threads)
2	Leaving water pipe	Male PT 1" according to ISO 7-1 (tapered pipe threads)
3	Strainer	Filtering and stacking particles inside circulating water
4	Top cover	-
5	Front panel	-
6	Side panel	-
7	Low voltage	Communication cable hole
8	Unit power	Power cable hole
9	Water pump	To circulate water inside the system
10	Plate heat exchanger	Heat exchange between refrigerant and water
11	Compressor shield panel	-
12	Safety valve	Open at water pressure 3 bar
13	Indoor control box	Indoor PCB and terminal blocks
14	Outdoor control box	Outdoor PCB and terminal blocks
15	Flow sensor	To measure the water flow rate (5-80 LPM)
16	Pressure sensor	To measure the water pressure (0-2 MPa)

Electric Backup Heater

HA031M E1

HA061M E1

HA063M E1



Backup heater specification

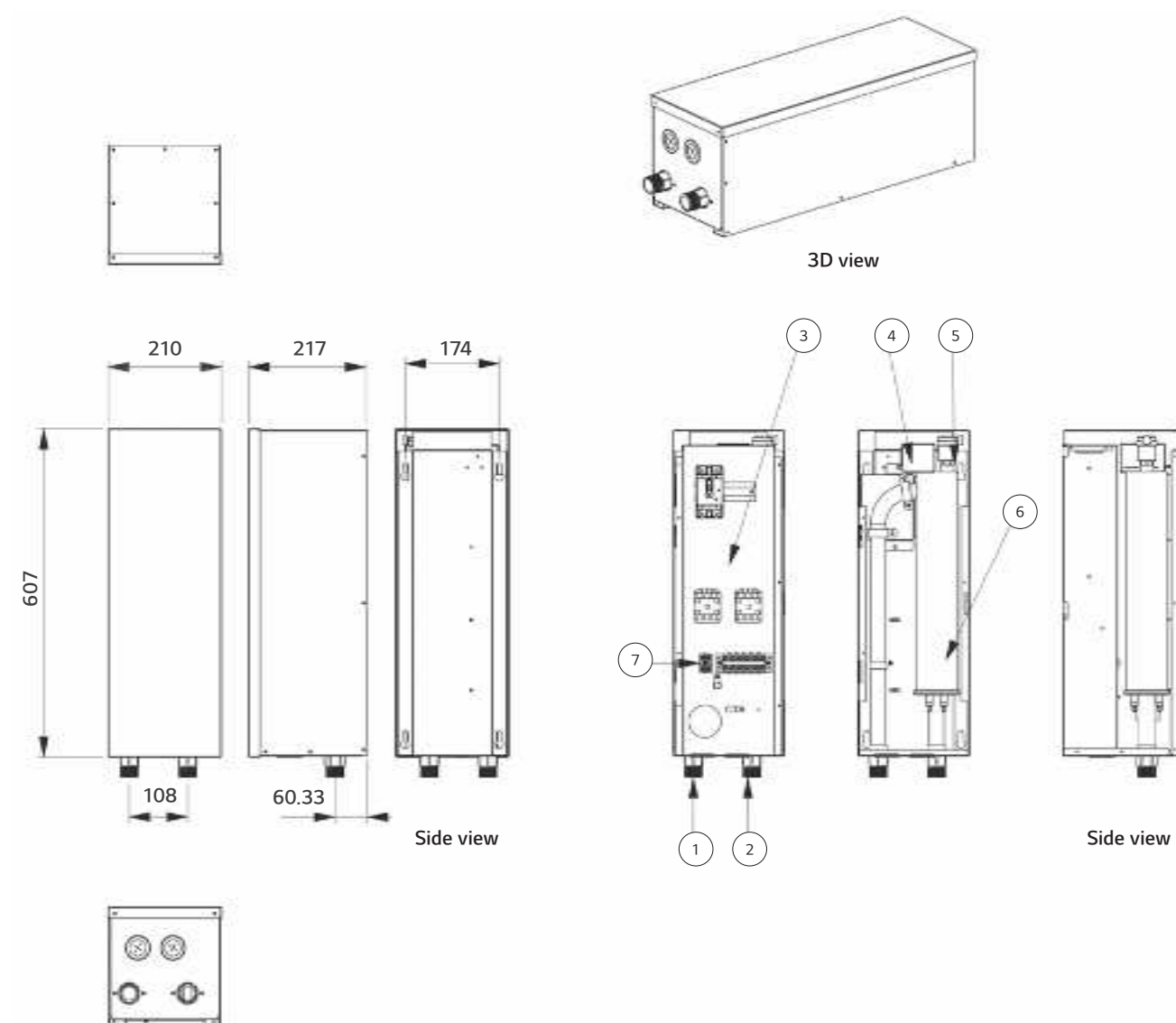
Electrical specification		Unit	HA031M E1	HA061M E1	HA063M E1
Backup heater	Type	-	Sheath		
	Number of heating coil	EA	1	2	3
	Capacity combination	kW	3.0	3.0 + 3.0	2.0 + 2.0 + 2.0
	Heating steps	Step	1	2	1
	Power supply	V, Ø, Hz	220 ~ 240, 1, 50		380 ~ 415, 3, 50
	Rated running current	A	12.5	25.0	8.7
	Dimensions (W x H x D)	mm	210 x 607 x 217		
	Net weight (unit)	kg	12.8	13.4	13.1
Wiring connections	Power supply cable (included earth, H07RN-F)	mm ² x cores	1.5 x 3 C	4.0 x 3 C	2.5 x 4 C
	Communication cable (H07RN-F)	mm ² x cores	0.75 x 4 C		0.75 x 2 C

Note

1. Due to our policy of innovation some specifications may be changed without notification.

2. Wiring cable size must comply with the applicable local and national codes.
Especially the power cable and circuit breaker should be selected in accordance with that.

PRODUCT SPECIFICATION



No.	Part name	Description
1	Leaving water pipe	Male PT 1" according to ISO 7-1 (tapered pipe threads)
2	Entering water pipe	Male PT 1" according to ISO 7-1 (tapered pipe threads)
3	Control box	Circuit breaker, Magnetic switch, Terminal blocks
4	Thermal switch	Cut-off power input to E/heater at 90°C
5	Air vent	Air purging when charging water
6	Electric heater	Refer the related information
7	Backup heater outlet sensor	Connect to unit (heat pump)