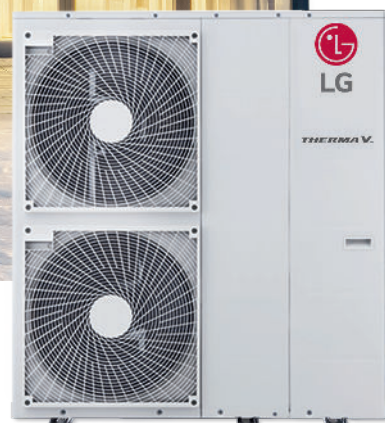
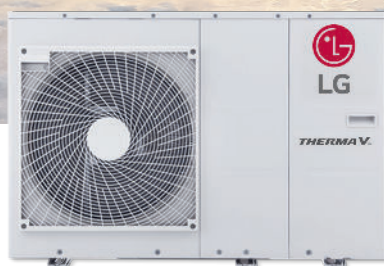




THERMA V™ 

R32 Monobloc S



User Convenience



Intuitive interface



LG ThinQ



Mixing circuit



Various control options



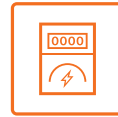
Flow sensor



Pressure sensor



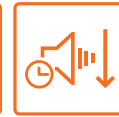
3rd party boiler



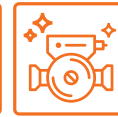
Energy monitoring



Seasonal auto mode



Low noise mode



Advanced pump control



LG ThinQ Seamless Connectivity

LG ThinQ allows users to monitor and control compatible LG products remotely, so they can set the temperature and regulate the use of their THERMA V anytime, anywhere. ThinQ technology also works with voice activation with Google Home.



Mandatory accessory:

PWFMD200 (LG Wi-Fi Modem)

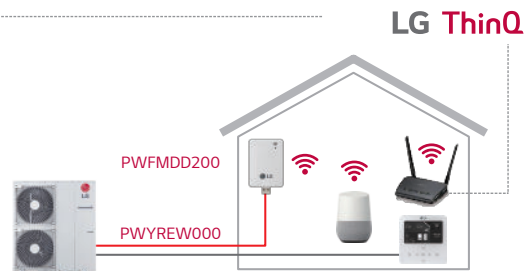
PWYREW000 (10m extension connect cable

in between THERMA V and LG Wi-Fi Modem)

could be required depends on installation condition.

* Search "LG ThinQ" on Google playstore or App store, then download the app.

* Google home voice is supported in United Kingdom, France, Germany, Spain, Italy, Austria, Ireland, Portugal.

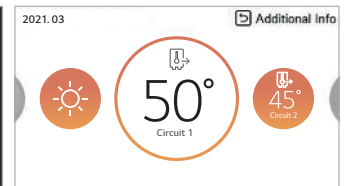
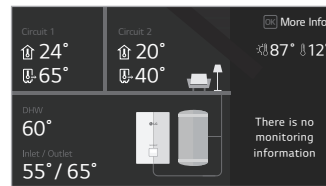


Intuitive Control

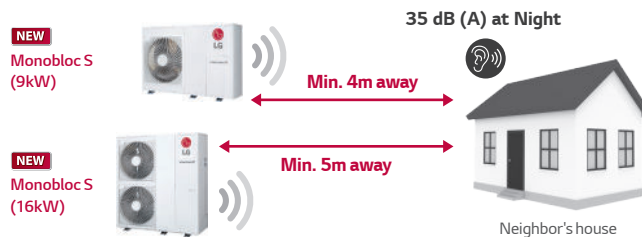
THERMA V is equipped with a new remote controller which supports various functions.

- Premium design (4.3 inch color LCD)
- User friendly interface (simple graphic, icon & text)
- Convenient functions (easy schedule setting & installer setting)
- Energy monitoring without meter interface (estimated power consumption)

* Instant power consumption and cumulative power consumption



Reduced Noise Level



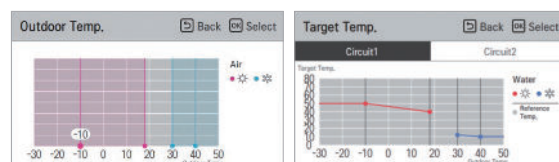
The UK Government states that the noise level should not be higher than 45dB when being 1 meter away from the window of a neighbouring residential property.

* Sound Pressure Level is converted from Sound Power Level of Low Noise Mode based on Tonality penalty of 0dB and installation in free-field.



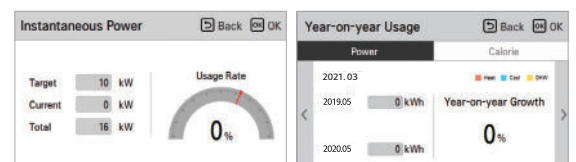
Seasonal Auto Mode

The operation mode and target temperature will be changed according to the outdoor temperature automatically. Moreover, this function can be conveniently set using visualized graphics.

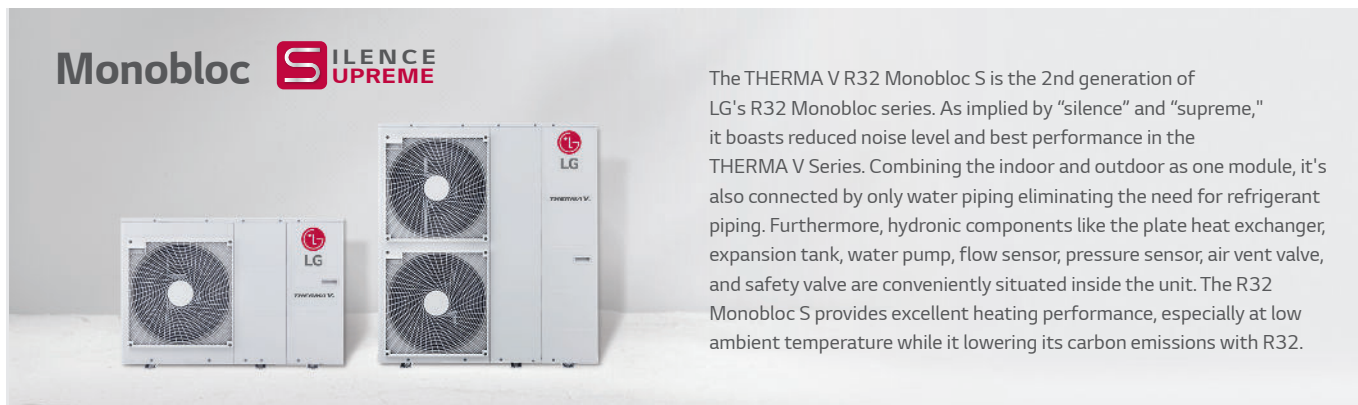


Energy Monitoring

Without connection of Meter Interface, estimated power consumption for Therma V and backup heater can be monitored on the remote controller.



THERMA V™ R32 Monobloc S at a Glance

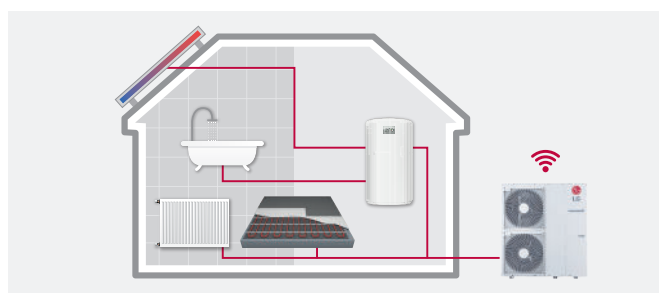


The THERMA V R32 Monobloc S is the 2nd generation of LG's R32 Monobloc series. As implied by "silence" and "supreme," it boasts reduced noise level and best performance in the THERMA V Series. Combining the indoor and outdoor as one module, it's also connected by only water piping eliminating the need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

THERMA V™ R32 Monobloc S

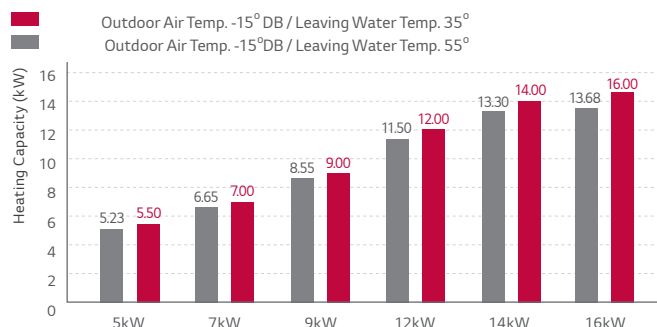
Enhanced installation flexibility

- All-in-one outdoor unit
- Low sound level allowing high installation location flexibility
- ODU with built-in hydronic components : water pump, flow sensor, pressure sensor, expansion tank, air vent, etc.
- User-friendly installation settings interface
- Optional electric backup heater (3kW or 6kW)
- Enhanced connectivity for 3rd party backup heater



High efficiency and wide operational range

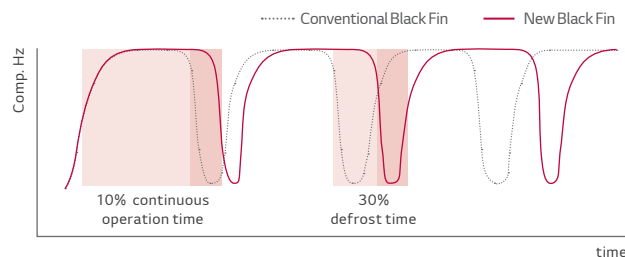
- R32 refrigerant with reduced global warming potential (GWP)
- Less environmental impact with low refrigerant amount (compared to R410A)
- 100% heating capacity at -15 °OAT (@ LWT 35°)
- Improved heating operation at defrost condition
- SCOP up to 4.67 (Average climate / Low temp. application) : A+++
SCOP up to 3.47 (Average climate / Mid temp. application) : A++
- COP up to 4.90 (Outdoor air 7° / Leaving water 35°)
- Leaving water temperature up to 65°
- Expanded operative range of solar thermal system



Innovative design and technology

- Improved heat exchanger design (New Black Fin)
- Built-in water flow & pressure sensors to monitor real-time water circuit
- Advanced water pump control (Optimal flow rate, fixed capacity, fixed flow rate)
- Enhanced 2nd circuit control logic
- Energy monitoring of estimated power consumption via remote controller
- Modbus connectivity without gateway
- Control for DHW recirculation pump based on schedule

Heating operation at defrost condition



10% increase in overall operating rate during defrost condition

* This result is based on LG internal test and it can be different depending on actual environment.

| Product | Capacity (kW) | Unit | | Appearance |
|----------------|---------------|-------------|-------------|------------|
| | | 1Ø | 3Ø | |
| R32 Monobloc S | 5 | HM051MR U44 | - | |
| | 7 | HM071MR U44 | - | |
| | 9 | HM091MR U44 | - | |
| | 12 | HM121MR U34 | HM123MR U34 | |
| | 14 | HM141MR U34 | HM143MR U34 | |
| | 16 | HM161MR U34 | HM163MR U34 | |

EASY INSTALLATION

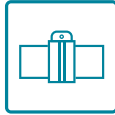
EXCELLENT PERFORMANCE & EFFICIENCY



all-in-one



LG heating configurator*



Clip connection



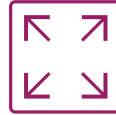
R1 compressor



R32 refrigerant



Flash gas injection



Wide operation range



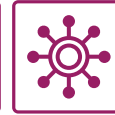
Black Fin heat exchanger



Solar thermal



Energy state



Modbus communication

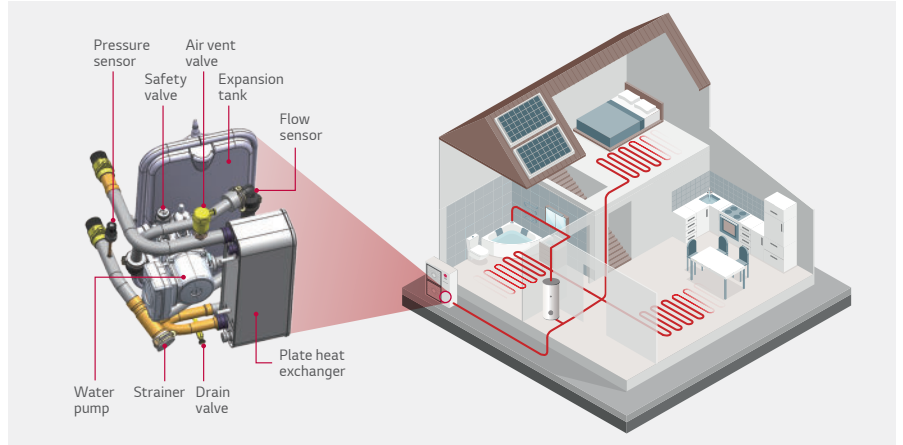
* Will be supported within this year



Monobloc Concept

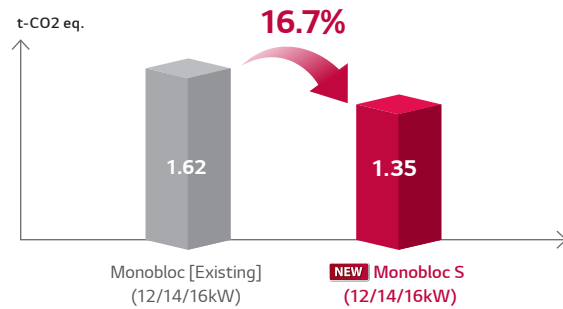
R32 Monobloc S is an all-in-one concept and reduced weight allows for quicker and easier installations.

- Additional hydronic components are included in the package
- Easier and quicker installation without refrigerant piping work



Less Environmental Impact

R32 Monobloc S produces less carbon emission by reducing the amount of refrigerant in the system compared to current model.

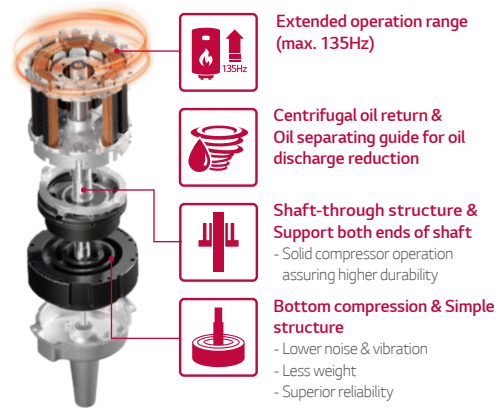


| Line up : 12 / 14 / 16 kW | Monobloc [Existing] | NEW Monobloc S |
|---------------------------|---------------------|----------------|
| Refrigerant Amount (kg) | 2.4 | 2.0 |
| T-CO2 eq. | 1.62 | 1.35 |



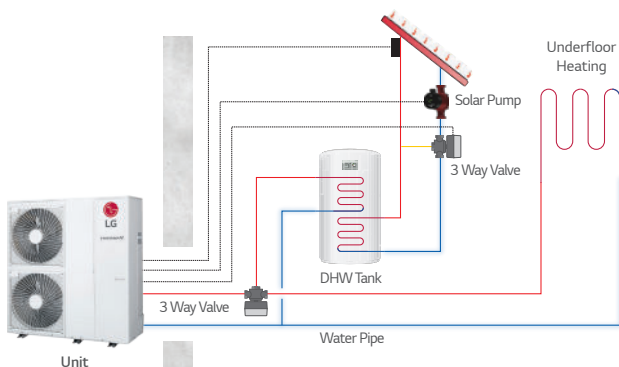
R1 Compressor™ LG's Revolutionary Technology

R1 Compressor™ technology offers advanced efficiency, reliability and operational range due in part to the enhanced tilting motion of the scroll.



Combination with Solar Thermal System

By combining the solar system with Therma V, the efficiency of DHW heating operation can be maximised.

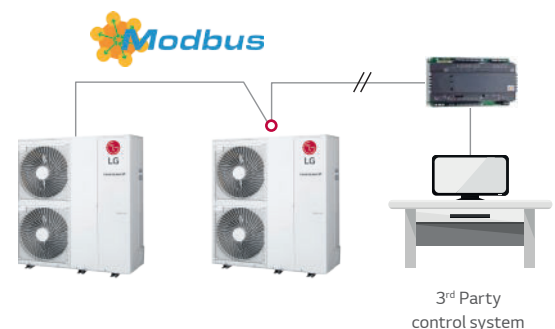


* Mandatory accessory: PT-1000 type solar thermal temp. sensor (field supply)

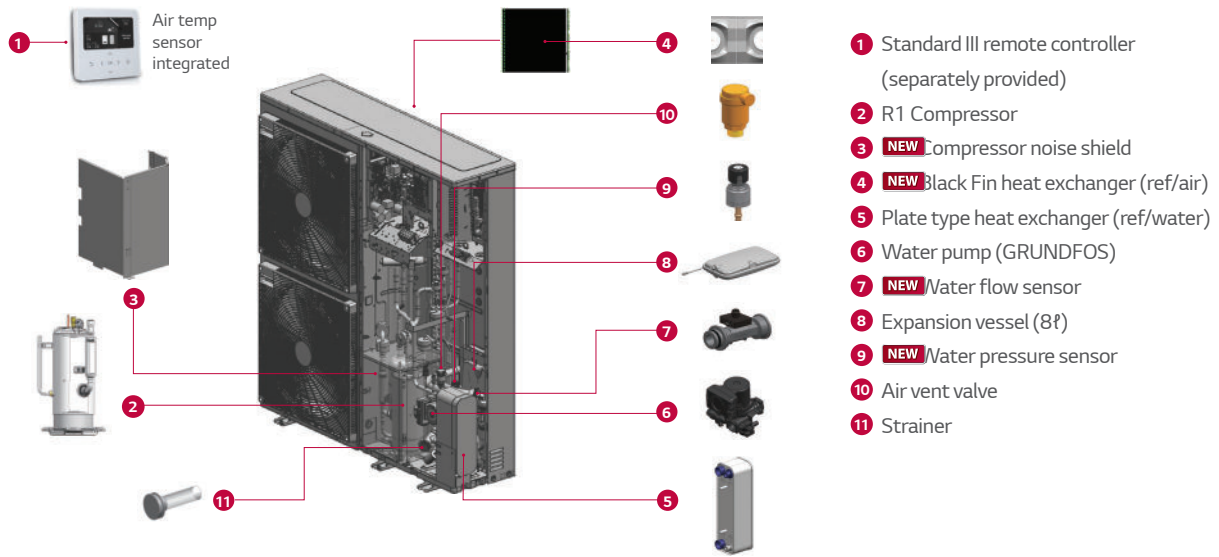


Direct Modbus Communication

R32 Monobloc S can be connected and controlled by 3rd party control system using Modbus protocol directly, without Modbus RTU gateway.



Key Components

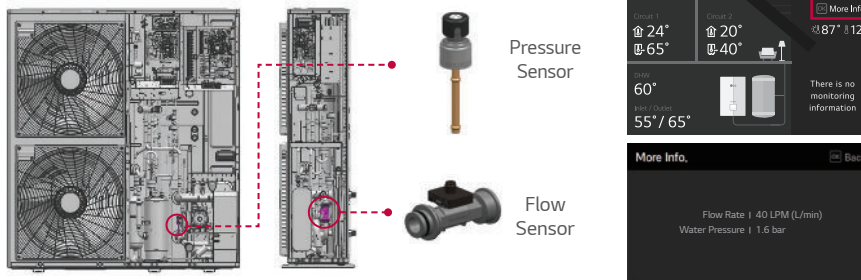


- 1 Standard III remote controller (separately provided)
- 2 R1 Compressor
- 3 **NEW** Compressor noise shield
- 4 **NEW** Black Fin heat exchanger (ref/air)
- 5 Plate type heat exchanger (ref/water)
- 6 Water pump (GRUNDFOS)
- 7 **NEW** Water flow sensor
- 8 Expansion vessel (8ℓ)
- 9 **NEW** Water pressure sensor
- 10 Air vent valve
- 11 Strainer



Water Circuit Monitoring

It is possible to monitor via remote controller not only temperature of water circuit but also flow rate and pressure. These information provides installers with more reliable information for easier installation and maintenance (periodic strainer cleaning).

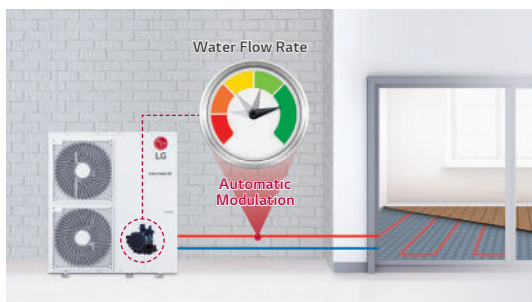


- Available information on the screen
- The room temperature
 - The water inlet / outlet temperature
 - The water pump operation
 - **NEW** the water flow rate
 - **NEW** the water pressure
 - The solar heat temperature
 - The outdoor temperature



Advanced Pump Control Options

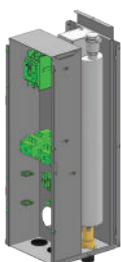
Various pump operation options contribute to energy savings by providing optimum water pump control and reliable product operation.



| Options | Description | Water Flow Change as per load condition |
|-----------------------------|---|---|
| Pump Capacity | It operates with the capacity set for the water pump. (range 10 - 100%) | No |
| Fixed Flow Rate | Automatically controlled to maintain the set flow rate. (5, 7, 9kW range : 8 - 26 LPM / 12, 14, 16kW range : 17 - 46 LPM) | No |
| Fixed ΔT* | Automatically controlled to maintain the set ΔT. (range 5 - 13ℓ) | Yes |
| Optimal Flow Rate (default) | ΔT is changed as per Target Temp. | Yes |

*ΔT = temperature difference between inlet and outlet water temperature.

Accessory Backup Heater



| Technical 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, ∅, Hz | 220 - 240, 1, 50 | | 380 - 415, 3, 50 |
| | Current (Rated) | A | 12.5 | 25.0 | 8.7 |
| | Circuit Breaker (ELCB) | A | 25 | 40 | 25 |
| Wiring Connections | Dimensions (W x H x D) | mm | 210 x 607 x 217 | | |
| | Power Cable (Included Earth, H07RN-F) | mm ² x cores | 1.5 x 3C | 4.0 x 3C | 2.5 x 4C |
| | Communication Cable (H07RN-F) | mm ² x cores | 0.75 x 4C | | 0.75 x 2C |

Nominal Capacity and Nominal Input

| Description | | OAT ¹⁾ (DB) | LWT ²⁾ (DB) | Unit | HM051MR U44 | HM071MR U44 | HM091MR U44 | HM121MR U34 | HM141MR U34 | HM161MR U34 |
|---------------------|---------|---------------------------|---------------------------|------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | | | | HM123MR U34 | HM143MR U34 | HM163MR U34 |
| Nominal Capacity | Heating | 7° | 35° | kW | 5.50 | 7.00 | 9.00 | 12.00 | 14.00 | 16.00 |
| | | 7° | 55° | | 5.50 | 7.00 | 9.00 | 11.00 | 11.50 | 12.00 |
| | | 2° | 35° | | 5.50 | 7.00 | 9.00 | 11.00 | 12.00 | 13.80 |
| Nominal Power Input | Heating | 7° | 35° | kW | 1.17 | 1.49 | 1.96 | 2.45 | 2.92 | 3.40 |
| | | 7° | 55° | | 2.04 | 2.04 | 2.04 | 3.79 | 4.04 | 4.29 |
| | | 2° | 35° | | 1.22 | 1.58 | 1.94 | 3.01 | 3.31 | 3.83 |
| COP | Heating | 7° | 35° | W/W | 4.70 | 4.70 | 4.60 | 4.90 | 4.80 | 4.70 |
| | | 7° | 55° | | 2.70 | 2.70 | 2.90 | 2.90 | 2.85 | 2.80 |
| | | 2° | 35° | | 3.60 | 3.55 | 3.50 | 3.65 | 3.63 | 3.60 |

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

Product Specification

| Technical Specification | | | | Unit | HM051MR U44 | HM071MR U44 | HM091MR U44 | HM121MR U34 (1Ø) | HM141MR U34 (1Ø) | HM161MR U34 (1Ø) |
|------------------------------|---------------------------------------|--------------------------------|-------------|----------|--|-------------|-------------|---------------------------------|----------------------|----------------------|
| | | | | | | | | HM123MR U34 (3Ø) | HM143MR U34 (3Ø) | HM163MR U34 (3Ø) |
| Water Side | Operation Range (Leaving Water Temp.) | Heating DHW | Min. - Max. | °DB | 15 - 65 | | | | | |
| | Water Pump | Model | | - | Grundfos UPM3K 20-75 CHBL | | | Grundfos UPML 20-105 CHBL | | |
| | Flow Sensor | Measuring Range | | l/min | 5 - 80 | | | | | |
| | Water Pressure Sensor | Measuring Range | | bar (G) | 0 - 20 | | | | | |
| | Expansion Vessel | Volume | Max. | l | 8 | | | | | |
| | 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) | | | | | |
| | Strainer | Max. Particle Size / Material | | mm / - | 0.6 / Stainless Steel | | | | | |
| | Safety Valve | Pressure Limit | Upper Limit | bar | 3.0 | | | | | |
| | Rated Water Flow Rate | at LWT 35° | | l/min | 15.8 | 20.1 | 25.9 | 34.5 | 40.3 | 46.0 |
| Refrigerant Side | Operation Range (Outdoor Temp.) | Heating | Min - Max | °DB | -25 - 35 | | | | | |
| | Compressor | Type | | - | Hermetic Sealed Scroll | | | | | |
| | Refrigerant | Type | | - | R32 | | | | | |
| | | GWP (Global Warming Potential) | | - | 675 | | | | | |
| | | Precharged Amount | | g | 1,400 | | | 2,000 | | |
| | t-CO2 eq | | - | 0.945 | | | 1.350 | | | |
| Sound Power Level | Heating | Rated | | dB(A) | | 57 | | 60 | | 61 |
| | | Low Noise Mode | | dB(A) | 54 | | 55 | | 56 | |
| Sound Pressure Level (at 5m) | Heating | Rated | | dB(A) | | 35 | | 38 | | 39 |
| | | Low Noise Mode | | dB(A) | 32 | | 33 | | 34 | |
| Dimensions | Unit | W x H x D | | mm | 1,239 x 834 x 330 | | | 1,239 x 1,380 x 330 | | |
| Weight | Unit | | | kg | 89.0 | | | 118.6 | | |
| Exterior | Color / RAL Code | | | - | Warm Grey / 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 | 8.7 | 10 : 10.9 / 3Ø : 3.6 | 10 : 12.9 / 3Ø : 4.3 | 10 : 15.1 / 3Ø : 5.0 |
| | Recommended Circuit Breaker | | | A | 16 | 20 | 25 | 10 : 40 / 3Ø : 16 | | |

1) When fan coil unit not used.

2) DHW 58-80° 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 tonality penalty of 0dB and installation in free-field. Therefore, these values can be increased owing to ambient conditions during operation. Rated sound power level is according to the EN12102-1 under conditions of the EN14825.

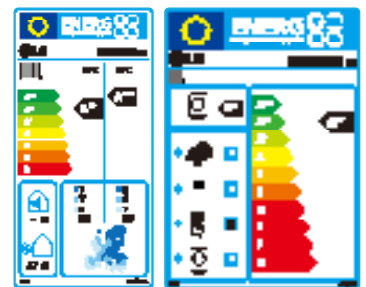
4. Performances are accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions acc. ErP regulation.

* Rated running current: Outdoor Temp. 7°CDB / 6°CWB, LWT 35°C

5. This product contains fluorinated greenhouse gases.

Seasonal Energy Efficiency

| Description | | Unit | HM051MR U44 | HM071MR U44 | HM091MR U44 | |
|--------------------------------------|-----------------------------------|---|-------------|-------------|-------------|------|
| Space Heating (According to EN14825) | Average Climate Water Outlet 35°C | SCOP | 4.46 | 4.48 | 4.55 | |
| | | Seasonal Space Heating Efficiency (ηs) | 175 | 176 | 179 | |
| | | Seasonal Space Heating Eff. Class (A+++ to D Scale) | - | A+++ | A+++ | |
| | Average Climate Water Outlet 55°C | SCOP | - | 3.20 | 3.20 | 3.20 |
| | | Seasonal Space Heating Efficiency (ηs) | 125 | 125 | 125 | |
| | | Seasonal Space Heating Eff. Class (A+++ to D Scale) | - | A++ | A++ | |



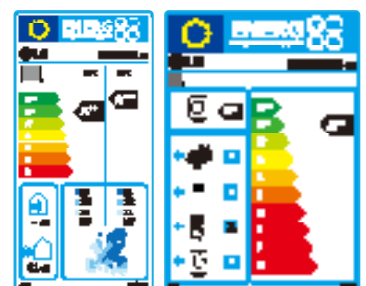
* 9kW 1Ø model.

* A+++ to D scale.



* EHPA & MCS label under development.

| Description | | Unit | HM121MR U34 | HM141MR U34 | HM161MR U34 | |
|--------------------------------------|-----------------------------------|---|-------------|-------------|-------------|------|
| | | | HM123MR U34 | HM143MR U34 | HM163MR U34 | |
| Space Heating (According to EN14825) | Average Climate Water Outlet 35°C | SCOP | 4.67 | 4.62 | 4.53 | |
| | | Seasonal Space Heating Efficiency (ηs) | 184 | 182 | 178 | |
| | | Seasonal Space Heating Eff. Class (A+++ to D Scale) | - | A+++ | A+++ | |
| | Average Climate Water Outlet 55°C | SCOP | - | 3.47 | 3.46 | 3.45 |
| | | Seasonal Space Heating Efficiency (ηs) | 136 | 135 | 135 | |
| | | Seasonal Space Heating Eff. Class (A+++ to D Scale) | - | A++ | A++ | |



* 16kW 1Ø model.

* A+++ to D scale.



* EHPA & MCS label under development.

Performance Table for Heating Operation

5 / 7 / 9 kW

Maximum Heating Capacity (Including Defrost Effect)

HM051MR U44

| Outdoor Temperature | LWT 30 | LWT 35 | LWT 40 | LWT 45 | LWT 50 | LWT 55 | LWT 60 | LWT 65 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | TC | TC | TC | TC | TC | TC | TC | TC |
| -25°C DB | 5.50 | 5.50 | 5.50 | 5.50 | - | - | - | - |
| -20°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.23 | - | - | - |
| -15°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.23 | 5.23 | - | - |
| -7°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | - |
| -4°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| -2°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| 2°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| 7°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| 10°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| 15°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| 18°C DB | 5.50 | 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 | 5.50 |
| 35°C DB | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |

HM071MR U44

| Outdoor Temperature | LWT 30 | LWT 35 | LWT 40 | LWT 45 | LWT 50 | LWT 55 | LWT 60 | LWT 65 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | TC | TC | TC | TC | TC | TC | TC | TC |
| -25°C DB | 5.85 | 5.85 | 5.85 | 5.85 | - | - | - | - |
| -20°C DB | 6.43 | 6.43 | 6.43 | 6.43 | 6.10 | - | - | - |
| -15°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 6.65 | 6.65 | - | - |
| -7°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | - |
| -4°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| -2°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 2°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 7°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 10°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 15°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| 18°C DB | 7.00 | 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 | 7.00 |
| 35°C DB | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |

HM091MR U44

| Outdoor Temperature | LWT 30 | LWT 35 | LWT 40 | LWT 45 | LWT 50 | LWT 55 | LWT 60 | LWT 65 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | TC | TC | TC | TC | TC | TC | TC | TC |
| -25°C DB | 6.20 | 6.20 | 6.20 | 6.20 | - | - | - | - |
| -20°C DB | 7.60 | 7.60 | 7.60 | 7.60 | 7.22 | - | - | - |
| -15°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 8.55 | 8.55 | - | - |
| -7°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | - |
| -4°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| -2°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 2°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 7°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 10°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 15°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |
| 18°C DB | 9.00 | 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 | 9.00 |
| 35°C DB | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 | 9.00 |

- Note
1. DB: Dry Bulb Temperature (°C), LWT: Leaving Water Temperature (°C), LPM: Liters Per Minute (l/min), TC: Total Capacity (kW)
 2. Direct interpolation is permissible. Do not extrapolate.
 3. Measuring procedure follows EN-14511.
 - Rated values are based on standard conditions and it can be found on specifications.
 - Above table values may not be matched according to installation condition. Except for rated value, the performance is not guaranteed.
 - In accordance with the test standard (or nations), the rating will vary slightly.
 4. The shaded areas are not guaranteed continuous operation.



Performance Table for Heating Operation

12 / 14 / 16 kW

Maximum Heating Capacity (Including Defrost Effect)

HM121MR U34 / HM123MR U34

| Outdoor Temperature | LWT 30 ^① | LWT 35 ^① | LWT 40 ^① | LWT 45 ^① | LWT 50 ^① | LWT 55 ^① | LWT 60 ^① | LWT 65 ^① |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | TC | TC | TC | TC | TC | TC | TC | TC |
| -25°C DB | 9.50 | 9.50 | 9.50 | 9.50 | - | - | - | - |
| -20°C DB | 10.75 | 10.75 | 10.75 | 10.75 | 10.21 | - | - | - |
| -15°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 11.50 | 11.50 | - | - |
| -7°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | - |
| -4°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| -2°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| 2°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| 7°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| 10°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| 15°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| 18°C DB | 12.00 | 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 | 12.00 |
| 35°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |

HM141MR U34 / HM143MR U34

| Outdoor Temperature | LWT 30 ^① | LWT 35 ^① | LWT 40 ^① | LWT 45 ^① | LWT 50 ^① | LWT 55 ^① | LWT 60 ^① | LWT 65 ^① |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | TC | TC | TC | TC | TC | TC | TC | TC |
| -25°C DB | 10.00 | 10.00 | 10.00 | 10.00 | - | - | - | - |
| -20°C DB | 12.00 | 12.00 | 12.00 | 12.00 | 11.40 | - | - | - |
| -15°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 13.30 | 13.30 | - | - |
| -7°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | - |
| -4°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| -2°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 2°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 7°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 10°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 15°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 18°C DB | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 20°C DB | 14.00 | 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 | 14.00 |

HM161MR U34 / HM163MR U34

| Outdoor Temperature | LWT 30 ^① | LWT 35 ^① | LWT 40 ^① | LWT 45 ^① | LWT 50 ^① | LWT 55 ^① | LWT 60 ^① | LWT 65 ^① |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | TC | TC | TC | TC | TC | TC | TC | TC |
| -25°C DB | 10.50 | 10.50 | 10.50 | 10.50 | - | - | - | - |
| -20°C DB | 13.25 | 13.25 | 13.25 | 13.25 | 12.59 | - | - | - |
| -15°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 13.68 | 13.68 | - | - |
| -7°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | - |
| -4°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| -2°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| 2°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| 7°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| 10°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| 15°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| 18°C DB | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| 20°C DB | 16.00 | 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 | 16.00 |

- Note
1. DB: Dry Bulb Temperature (°C), LWT: Leaving Water Temperature (°C), LPM: Liters Per Minute (l/min), TC: Total Capacity (kW)
 2. Direct interpolation is permissible. Do not extrapolate.
 3. Measuring procedure follows EN-14511.
 - Rated values are based on standard conditions and it can be found on specifications.
 - Above table values may not be matched according to installation condition. Except for rated value, the performance is not guaranteed.
 - In accordance with the test standard (or nations), the rating will vary slightly.
 4. The shaded areas are not guaranteed continuous operation.

