

# A heat pump that's future conscious, THERMA V R290 Monobloc

**THERMA V™**  
R290 Monobloc



## Freezing Outside, but Toasty Inside



The R290 Monobloc can function in external temperatures as low as -28°C. Plus, customers can retain their existing radiators as the system can generate a water flow of up to 75°C, offering a cost-saving advantage.

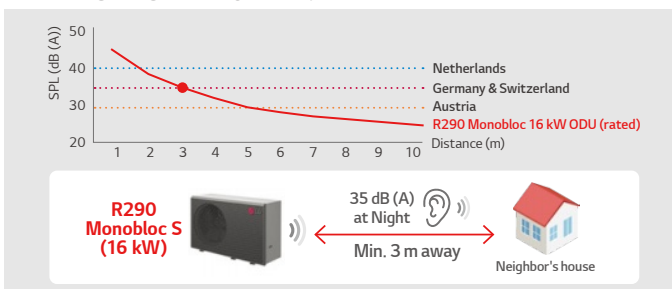
## Extremely Quiet Operation

R290 Monobloc	9 kW & 12 kW	14 kW	16 kW
	Sound power level <sup>2)</sup> (heating / rated)	49	51
Sound power level <sup>2)</sup> (heating / low noise mode)	48	50	51

1) The certification (Quiet Mark) has not been officially certified yet, and is currently in the process of being acquired.  
2) The specification and design have not yet been finalized, so they may change at the time of the product's final launch.

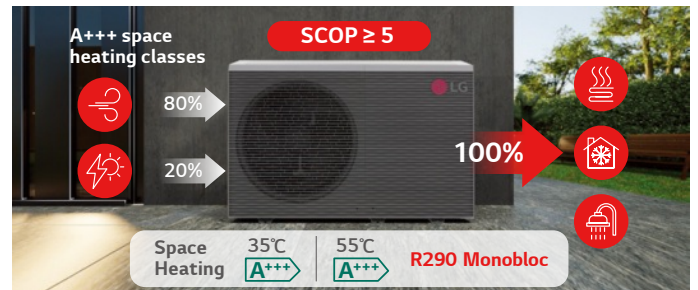
Extremely low noise level unit available today.  
- The sound power level of 49 dB (A) @ 12 kW is outstanding in the market.

## Ensuring Regulatory Compliance Across All EU Markets

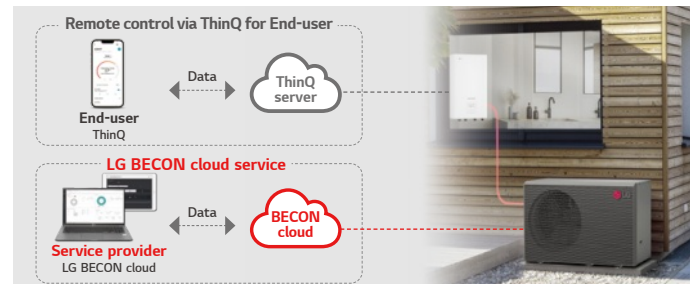


Customers can have peace of mind with no risk of complaints and no additional costs for acoustic enclosures.

## Exceptional Efficiency

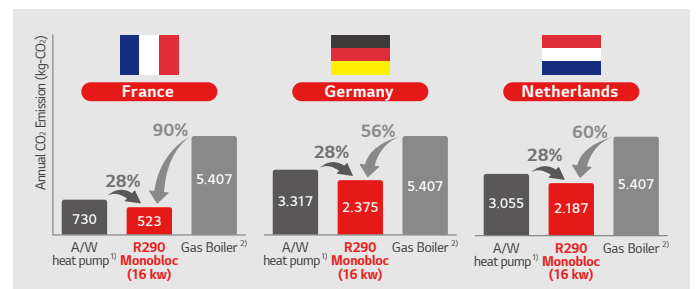


## ThinQ and BECON cloud for Control, Maintenance, and Monitoring



With ThinQ, users can regulate the temperature and operation mode of the R290 Monobloc anytime, anywhere. Additionally, the BECON cloud enables installers or service partners to provide remote monitoring, servicing, and firmware upgrades as needed.

## Annual CO<sub>2</sub> Emission Simulation



\* This simulation result may differ from actual values since there are many assumptions used.  
\* Annual CO<sub>2</sub> emission is calculated based on annual energy consumption declared together with ErP energy efficiency under average climate and medium temperature (55°C) conditions and the carbon intensity of the power sector in the European Union in 2022, by country (<https://www.statista.com/statistics/1291750/carbon-intensity-power-sector-eu-country/>). For conventional heat pump and gas boiler, annual energy consumption is assumed to cover same annual heating demand with LG Therma V R290 Monobloc 16kW.  
1) Assuming SCOP 2.7 considering performance degradation of heat pump installed 10 years ago.  
2) Assuming 90% efficiency based on condensing boiler and 56.1 t-CO<sub>2</sub>/TJ is considered for calculation of CO<sub>2</sub> emission.



\* The specification and design have not yet been finalized, so they may change at the time of the product's final launch.  
\* Certifications such as Keymark, EHPA, Eurovent and Quiet Mark will be obtained sequentially.



# THERMA V™ R290 Monobloc

## Key Features

- Capacity range with 4 sizes from 9 to 16 kW for renovation and large new built
- Eco-conscious R290 refrigerant
- Refined black and grey design that adapt to various surroundings
- One of the quietest models on the market (49 dB(A) for 12 kW models)
- Maximum flow temperature up to 75°C
- Operation range down to -28°C

\* Combi Unit integrated with water tank and Control Unit for stand alone installation will be released later on.



## Specifications

Efficiency data		Unit	HM093HFX UB60 (3 Ø)	HM121HF UB60 (1 Ø) HM123HF UB60 (3 Ø)	HM141HF UB60 (1 Ø) HM143HF UB60 (3 Ø)	HM161HF UB60 (1 Ø) HM163HF UB60 (3 Ø)
Seasonal space heating eff. class (35°C / 55°C)		-	A+++ / A++	A+++ / A+++	A+++ / A+++	A+++ / A+++
Seasonal space heating efficiency (η <sub>s</sub> ) (35°C / 55°C)		%	206 / 147	215 / 156	212 / 155	201 / 154
SCOP (35°C / 55°C)		-	5.22 / 3.75	5.45 / 3.97	5.37 / 3.95	5.11 / 3.92
Nominal capacity and COP / EER						
Air +7°C / water +35°C	Heating capacity / COP	kW / -	9.00 / 4.90	12.00 / 4.70	14.00 / 4.50	16.00 / 4.30
Air +2°C / water +35°C	Heating capacity / COP	kW / -	9.00 / 3.88	12.00 / 3.72	14.00 / 3.61	14.50 / 3.49
Air +7°C / water +55°C	Heating capacity / COP	kW / -	9.00 / 3.20	10.00 / 3.10	11.00 / 3.25	12.00 / 3.20
Air +35°C / water +18°C	Cooling capacity / EER	kW / -	9.00 / 4.05	11.50 / 3.95	12.00 / 3.90	12.50 / 3.70
Air +35°C / water +7°C	Cooling capacity / EER	kW / -	9.00 / 3.24	10.50 / 3.12	12.00 / 2.99	12.50 / 2.95
Outdoor unit			HM093HFX UB60 (3 Ø)	HM121HF UB60 (1 Ø) HM123HF UB60 (3 Ø)	HM141HF UB60 (1 Ø) HM143HF UB60 (3 Ø)	HM161HF UB60 (1 Ø) HM163HF UB60 (3 Ø)
Operation range (outdoor air temperature)	Heating & DHW (Min. ~ Max.)	°C	-28 ~ 35			
	Cooling (Min. ~ Max.)	°C	5 ~ 48			
Refrigerant	Type	-	R290			
	GWP	-	3			
	Precharged amount	g	1,200			
Piping connections (water)	Inlet / outlet diameter	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)			
Sound power level	Rated / low noise mode	dB (A)	49 / 48	49 / 48	51 / 50	52 / 51
Sound pressure level at 5 m <sup>1)</sup>	Rated / low noise mode	dB (A)	27 / 26	27 / 26	29 / 28	30 / 29
Dimension	W × H × D	mm	1,560 x 1,019 x 460			
Weight	Empty	kg	178.0			
Exterior	Color / RAL code	-	Dawn Gray / RAL 7037			
Power supply	Voltage, phase, frequency	V, Ø, Hz	380 ~ 415, 3, 50	220 ~ 240, 1, 50 / 380 ~ 415, 3, 50		
	Recommended circuit breaker <sup>3)</sup>	A	3 Ø: 16	1 Ø: 25 / 3 Ø: 16		
Indoor unit			HN1616HC NK0 (1 Ø) / HN1639HC NK0 (3 Ø)			
Operation range (leaving water temperature)	Heating (Min. ~ Max.)	°C	15 ~ 75			
	Cooling (Min. ~ Max.)	°C	5 ~ 27			
	DHW (Min. ~ Max.)	°C	15 ~ 80 <sup>2)</sup>			
Backup heater	Capacity combination	kW	3 + 3 / 3 + 3 + 3			
	Power supply	V, Ø, Hz	220 ~ 240, 1, 50 / 380 ~ 415, 3, 50			
	Rated running current	A	25 / 13			
Piping connections (water)	Heating circuit outlet pipe	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)			
	Heating circuit inlet pipe	inch				
	Outlet pipe to outdoor unit	inch				
	Inlet pipe from outdoor unit	inch				
Sound power level	Rated	dB (A)	44			
Sound pressure level at 1 m <sup>1)</sup>	Rated	dB (A)	36			
Dimension	W × H × D	mm	490 x 850 x 315			
Weight	Empty	kg	36.0			
Exterior	Color / RAL code	-	Noble white / RAL 9016			

\* The specification and design have not yet been finalized, so they may change at the time of the product's final launch.

1) 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.

2) DHW 65 ~ 80°C Operating is available only when the booster heater is operating.

3) Actual circuit breaker size must be dimensioned based on local standards by a professional electrician.

