

R32 Split series

THERMA V™



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LG's New **THERMA V™** R32 SPLIT Series at a Glance



More compact R32 Split for new build houses

LG THERMA V R32 Split series is an air-to-water heat pump in which the outdoor unit and the indoor unit are connected by refrigerant pipes, available in two different combinations (Hydro box or Integrated water tank) depending on the specific needs of the property. The outdoor unit is on offer in 4/6 kW and 5/7/9 kW capacity range. R32 Split 4/6 kW model is suitable for new build houses that are well insulated and require a small heating load, while R32 Split 5/7/9 kW model is adapted for both new build and renovation projects.

Key Features

LG **THERMA V™** R32 Split 4/6 kW **NEW**



- Answers the needs of new build houses with good insulation and a small heating demand
- Combines with IWT and Hydro Box
- Demonstrates a lower noise level (sound pressure level at 3 m : 39 dB (A) for 4 kW / 40 dB (A) for 6 kW)

Enhanced installation flexibility

- Free from minimum floor area requirements due to R32 refrigerant (Max. refrigerant amount (including 30 m pipes) < 1.842 kg)
- Light weight and compact size
- Max. 30 m refrigerant piping
- Integrated 3 kW backup heater and expansion tank for heating (8 ℓ)

High efficiency & operational range

- SCOP up to 4.65 / 3.12 (low temp. / med temp. application) : **A+++** / **A++**
- Water heating efficiency 133 % (4,6 kW, profile L) : **A+**
- COP up to 5.10 (outdoor air 7 °C / leaving water 35 °C)
- Operation range (ambient: -20 ~ 35 °C / water side: 15 ~ 55 °C)

Innovative design & technology

- Duplex stainless steel water tank (200 ℓ, for IWT only)
- Energy monitoring of estimated power consumption

Control & Connectivity

- LG ThinQ Wi-Fi control and monitoring solution
- PV / ESS or smart grid connectivity

LG **THERMA V™** R32 Split 5/7/9 kW



- Suitable for both new build and renovation projects
- Combines with IWT and Hydro Box
- Boasts a wider operating range

Enhanced installation flexibility

- Light weight and compact size
- Max. 50 m refrigerant piping and 3-way piping connection availability
- Integrated backup heater (6 kW for Hydro Box, 3 kW for IWT) and expansion tank for heating (8 ℓ)

High efficiency & operational range

- SCOP up to 4.65 / 3.12 (low temp. / med temp. application) : **A+++** / **A++**
- Water heating efficiency 133 % (5,7 kW, profile L) / 140 % (9 kW, profile XL) : **A+**
- COP up to 5.10 (outdoor air 7 °C / leaving water 35 °C)
- Operation range (ambient: -25 ~ 35 °C / water side: 15 ~ 65 °C)

Innovative design & technology

- Duplex stainless steel water tank (200 ℓ, for IWT only)
- Energy monitoring of estimated power consumption

Control & Connectivity

- LG ThinQ Wi-Fi control and monitoring solution
- PV / ESS or smart grid connectivity

Product	Type	Phase	Capacity (kW)	Indoor Unit		Outdoor Unit	
NEW R32 Split 4/6 kW	Hydro Box	1 Ø	4	HN0613M NK5		HU041MR U20	
			6			HU061MR U20	
	IWT		4	HN0613T NK0		HU041MR U20	
			6			HU061MR U20	
R32 Split 5/7/9 kW	Hydro Box	1 Ø	5	HN091MR NK5		HU051MR U44	
			7			HU071MR U44	
			9			HU091MR U44	
	IWT		5	HN0913T NK0		HU051MR U44	
			7			HU071MR U44	
			9			HU091MR U44	

Indoor Unit (For IWT)

Technical Specification			Indoor Unit	HN0613T NK0	HN0913T NK0
Operation Range (Leaving water temp.)	Heating	Min. - Max.	°C	15 ~ 55	15 ~ 65
	Cooling	Min. - Max.	°C	5 ~ 27 (16 ~ 27) ¹⁾	5 ~ 27 (16 ~ 27) ¹⁾
	Domestic Hot Water	Min. - Max.	°C	15 ~ 80 ²⁾	15 ~ 80 ³⁾
Domestic Hot Water Tank	Volume		ℓ	200	200
	Material		-	Duplex Stainless steel	Duplex Stainless steel
	Internal Thermal Protect Limit		°C	85	85
Flow Sensor	Measuring Range	Min. - Max.	ℓ/min	5 ~ 80	5 ~ 80
Water Pressure Sensor	Measuring Range	Min. - Max.	bar (G)	0 ~ 20	0 ~ 20
Expansion Vessel (Heating Circuit)	Volume		ℓ	8	8
Safety Valve	Heating Circuit	Upper Limit	bar	3	3
	DHW Circuit	Upper Limit	bar	10	10
Piping Connections	Refrigerant Circuit	Liquid (outside diameter)	mm (Inch)	Ø 6.35 (1/4) ⁴⁾	Ø 9.52 (3/8)
		Gas (outside diameter)	mm (Inch)	Ø 12.7 (1/2) ⁴⁾	Ø 15.88 (5/8)
	Water Circuit	Inlet	Inch	Female G1" according to ISO228-1 (parallel pipe threads)	Female G1" according to ISO228-1 (parallel pipe threads)
		Outlet	Inch		
	DHW Tank Water Circuit	Cold Inlet	Inch	Female G1" according to ISO228-1 (parallel pipe threads)	Female G1" according to ISO228-1 (parallel pipe threads)
		Hot Outlet	Inch		
Recirculation		Inch			
Sound Power Level	Heating	Rated	dB (A)	42	42
Dimensions	Unit	W × H × D	mm	600 × 1,750 × 660	600 × 1,750 × 660
Weight (without water)	Unit		kg	118	118
Exterior	Color / RAL Code		-	Noble White / RAL 9016	Noble White / RAL 9016
Electrical Specification			Indoor Unit	HN0613T NK0	HN0913T NK0
Wiring Connections	Power and Communication Cable (Included Earth, H07RN-F)		mm ² x cores	0.75 x 4 C	0.75 x 4 C
Electric Heater	Type		-	Sheath	Sheath
	No. of Heating Coil		EA	2	2
	Capacity combination		kW	3	3
	Heating Step		Step	1	1
	Power Supply		V, Ø, Hz	220-240, 1, 50	220-240, 1, 50
	Power Supply Cable (Included Earth, H07RN-F)		mm ² x cores	2.5 x 3 C	2.5 x 3 C
	Rated Current		A	13	13

1) When a fan coil unit is not used.

2) For HN0613T NK0, DHW 50 ~ 80 °C operating is available only when the electric heater is operating.

3) For HN0913T NK0, DHW 58 ~ 80 °C operating is available only when the electric heater is operating.

4) When connecting the refrigerant pipe, the adaptors provided with the outdoor unit must be installed on the connection of the indoor unit.

Indoor Unit (For Hydro Box)

Technical Specification			Indoor Unit	HN0613M NK5	HN091MR NK5
Operation Range (Leaving water temp.)	Heating	Min. - Max.	°C DB	15 ~ 55	15 ~ 65
	Cooling	Min. - Max.	°C DB	5 ~ 27 (16 ~ 27) ¹⁾	5 ~ 27 (16 ~ 27) ¹⁾
	Domestic Hot Water	Min. - Max.	°C DB	15 ~ 80 ²⁾	15 ~ 80 ³⁾
Flow Sensor	Measuring Range	Min. - Max.	ℓ/min	5 ~ 80	5 ~ 80
Water Pressure Sensor	Measuring Range	Min. - Max.	bar (G)	0 ~ 20	0 ~ 20
Expansion Vessel	Volume	Max.	ℓ	8	8
Safety Valve	Pressure Limit	Upper Limit	bar	3	3
Piping Connections	Water Circuit	Inlet	Inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)	Male PT 1" according to ISO 7-1 (tapered pipe threads)
		Outlet	Inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)	Male PT 1" according to ISO 7-1 (tapered pipe threads)
	Refrigerant Circuit	Gas	mm (Inch)	Ø 6.35 (1/4) ⁴⁾	Ø 15.88 (5/8)
		Liquid	mm (Inch)	Ø 12.7 (1/2) ⁴⁾	Ø 9.52 (3/8)
Sound Power Level	Heating	Rated	dB (A)	44	44
Dimensions	Unit	W × H × D	mm	490 × 850 × 315	490 × 850 × 315
Weight	Unit		kg	37.8	38.1
Electrical Specification			Indoor Unit	HN0613M NK5	HN091MR NK5
Wiring Connections	Power and Communication Cable (Included Earth, H07RN-F)		mm ² x cores	0.75 x 4 C	0.75 x 4 C
Electric Heater	Type		-	Sheath	Sheath
	Number of Heating Coil		EA	2	2
	Capacity Combination		kW	1.5 + 1.5	3.0 + 3.0
	Operation		-	Automatic	Automatic
	Heating Steps		Step	2	2
	Power Supply		V, Ø, Hz	220-240, 1, 50	220-240, 1, 50
	Rated Current		A	13	25
Power Supply Cable (included earth, H07RN-F)		mm ² x cores	2.5 x 3 C	4.0 x 3 C	

1) When a fan coil unit is not used.

2) For HN0613T NK0, DHW 50 ~ 80 °C operating is available only when the booster heater is operating.

3) For HN0913T NK0, DHW 58 ~ 80 °C operating is available only when the booster heater is operating.

4) When connecting the refrigerant pipe, the adaptors provided with the outdoor unit must be installed on the connection of the indoor unit.

Outdoor Unit (For R32 Split 4/6 kW)

Technical Specification		OAT	LWT	Indoor Unit	HN0613M NK5		
					HN0613T NK0		
				Outdoor Unit	HU041MR U20	HU061MR U20	
Nominal Capacity	Heating	7 °C	35 °C	kW	4.00	6.00	
		7 °C	55 °C	kW	3.70	4.60	
		2 °C	35 °C	kW	3.60	4.80	
	Cooling	-7 °C	35 °C	kW	4.00	6.00	
		35 °C	18 °C	kW	4.00	6.00	
		35 °C	7 °C	kW	4.00	6.00	
Nominal Power Input	Heating	7 °C	35 °C	kW	0.78	1.21	
		7 °C	55 °C	kW	1.30	1.59	
		2 °C	35 °C	kW	0.96	1.32	
	Cooling	-7 °C	35 °C	kW	1.30	2.01	
		35 °C	18 °C	kW	0.83	1.25	
		35 °C	7 °C	kW	1.18	1.88	
COP	Heating	7 °C	35 °C	W/W	5.10	4.95	
		7 °C	55 °C	W/W	2.85	2.90	
		2 °C	35 °C	W/W	3.75	3.65	
	Cooling	-7 °C	35 °C	W/W	3.08	2.98	
		35 °C	18 °C	W/W	4.80	4.80	
		35 °C	7 °C	W/W	3.40	3.20	
Operation Range (Outdoor Temp.)	Heating	Min. ~ Max.		°C DB	-20 ~ 35		
	Cooling	Min. ~ Max.		°C DB	5 ~ 48		
Compressor	Type					Hermetic Sealed Twin Rotary	
Refrigerant	Type					R32	
	GWP (Global Warming Potential)					675	
	Precharged Amount					1,100	
	t-CO ₂ eq					0.743	
Piping Connections	Outer Diameter	Liquid	mm (inch)	Ø 6.35 (1/4)			
		Gas	mm (inch)	Ø 12.7 (1/2)			
	Length	Standard	m	5			
		Max.	m	30			
	Level Difference	Max.	m	30			
	Chargeless-Pipe Length		m	10			
Additional Charging Volume		g/m	20				
Rated Water Flow Rate (at LWT 35 °C)				l/min	11.5	17.3	
Sound Power Level	Heating	Rated	dB (A)	57	58		
Sound Pressure Level (at 1 m)	Heating	Rated	dB (A)	49	50		
Dimensions	Unit	W x H x D		mm		870 x 650 x 330	
Weight	Unit					kg	44.7
Exterior	Color / RAL Code					-	Warm Gray / RAL 7044
Electrical Specification				Outdoor Unit	HU041MR U20	HU061MR U20	
Power Supply	Voltage, Phase, Frequency			V, Ø, Hz	220-240, 1, 50		
	Rated Running Current	Heating		A	3.5	5.6	
		Cooling		A	3.7	5.4	
Recommended Circuit Breaker				A	16	20	
Wiring Connections	Power Supply Cable (Included Earth, H07RN-F)			mm ² x cores	2.5 x 3 C		

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 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), Leaving Water Temp. 35 °C
 - Interconnected pipe length is standard length and difference of elevation (Outdoor - Indoor unit) is 0 m.
- This product contains fluorinated greenhouse gases.
- All installation sites must be equipped with an earth leakage circuit breaker (ELCB).

Seasonal Energy Efficiency

For R32 Split 4/6 kW

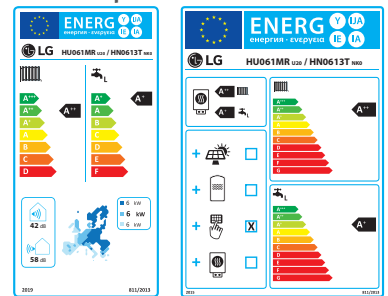
Description			Indoor Unit	HN0613M NK5	
				HN0613T NK0	
			Outdoor Unit	HU041MR U20	HU061MR U20
Space Heating (According to EN14825)	Average Climate Water Outlet 35°C	SCOP	-	4.65	4.65
		Seasonal Space Heating Efficiency (η _s)	%	183	183
		Seasonal Space Heating Eff. Class	-	A+++	A+++
	Average Climate Water Outlet 55°C	SCOP	-	3.23	3.23
		Seasonal Space Heating Efficiency (η _s)	%	126	126
		Seasonal Space Heating Eff. Class	-	A++	A++
Description			Indoor Unit	HN0613T NK0	
			Outdoor Unit	HU041MR U20	HU061MR U20
Domestic Hot Water Efficiency ¹⁾ (According to EN 16147)	Declared Load Profile		-	L	L
	Water Heating Efficiency (η _{wh})	%	133	133	
	COP _{DHW}	-	3.15	3.15	
	Water Heating Eff. Class	-	A+	A+	
	Declared Load Profile		-	L	L
	Water Heating Efficiency (η _{wh})	%	160	160	
	COP _{DHW}	-	3.69	3.69	
	Water Heating Eff. Class	-	A++	A++	
	Declared Load Profile		-	L	L
	Water Heating Efficiency (η _{wh})	%	110	110	
COP _{DHW}	-	2.54	2.54		
Water Heating Eff. Class	-	A	A		

1) The domestic hot water efficiency is only for IWT type indoor units.

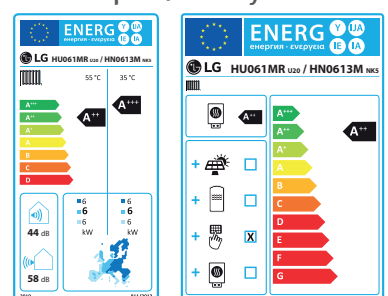


* Keymark, Eurovent, MCS and EHPA label under development

For R32 Split 4/6 kW IWT



For R32 Split 4/6 kW Hydro Box



* 6 kW 1 Ø model.

* A+++ to D scale.

Outdoor Unit (For R32 Split 5/7/9 kW)

Technical Specification		OAT	LWT	Indoor Unit	HN091MR NK5		
				Outdoor Unit	HN0913T NK0	HU051MR U44	HU071MR U44
Nominal Capacity	Heating	7 °C	35 °C	kW	5.50	7.00	9.00
		7 °C	55 °C	kW	5.50	5.50	5.50
		2 °C	35 °C	kW	3.30	4.20	5.40
	Cooling	35 °C	18 °C	kW	5.50	7.00	9.00
		35 °C	7 °C	kW	5.50	7.00	9.00
		7 °C	35 °C	kW	1.12	1.43	1.94
Nominal Power Input	Heating	7 °C	55 °C	kW	1.57	1.57	1.57
		2 °C	35 °C	kW	0.94	1.20	1.54
		35 °C	18 °C	kW	1.20	1.56	2.14
	Cooling	35 °C	7 °C	kW	1.96	2.59	3.46
		7 °C	35 °C	W/W	4.90	4.90	4.65
		7 °C	55 °C	W/W	3.50	3.50	3.50
COP	Heating	2 °C	35 °C	W/W	3.52	3.51	3.50
		35 °C	18 °C	W/W	4.60	4.50	4.20
EER	Cooling	35 °C	7 °C	W/W	2.80	2.70	2.60
		7 °C	35 °C	W/W	2.80	2.70	2.60
Operation Range (Outdoor Temp.)	Heating	Min. - Max.		°C DB	-25 ~ 35		
	Cooling	Min. - Max.		°C DB	5 ~ 48		
Compressor	Type				Hermetic Sealed Scroll		
	Type				R32		
Refrigerant	GWP (Global Warming Potential)				675		
	Precharged Amount				1,500		
	t-CO ₂ eq				1.013		
Piping Connections	Outer Diameter	Liquid		mm (inch)	Ø 15.88 (5/8)		
		Gas		mm (inch)	Ø 9.52 (3/8)		
	Length	Standard		m	5		
		Max.		m	50		
	Level Difference	Max.		m	30		
	Chargeless-Pipe Length			m	10		
Additional Charging Volume			g/m	30			
Rated Water Flow Rate (at LWT 35 °C)			l/min	15.8	20.1	25.9	
Sound Power Level	Heating	Rated		dB (A)	60		
Sound Pressure Level (at 1 m)	Heating	Rated		dB (A)	52		
Dimensions	Unit	W x H x D		mm	950 x 834 x 330		
Weight	Unit			kg	60		
Exterior	Color / RAL Code				Warm Gray / RAL 7044		
Electrical Specification				Outdoor Unit	HU051MR U44	HU071MR U44	HU091MR U44
Power Supply	Voltage, Phase, Frequency				V, Ø, Hz		
	Rated Running Current	Heating		A	5.0	6.3	8.6
		Cooling		A	5.3	6.9	9.5
Recommended Circuit Breaker			A	20	25	30	
Wiring Connections	Power Supply Cable (Included Earth, H07RN-F)				mm ² x cores		
					4.0 x 3 C		

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 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), Leaving Water Temp. 35 °C
 - Interconnected pipe length is standard length and difference of elevation (Outdoor - Indoor unit) is 0 m.
- This product contains fluorinated greenhouse gases.
- All installation sites must be equipped with an earth leakage circuit breaker (ELCB).

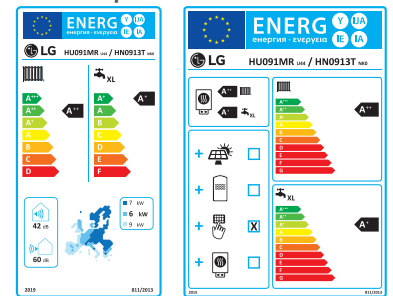
Seasonal Energy Efficiency

For R32 Split 5/7/9 kW

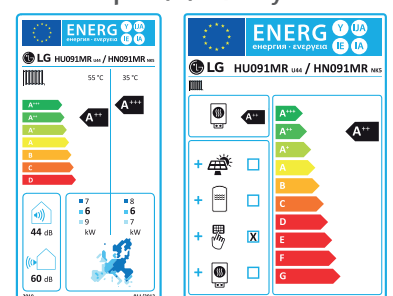
Description			Indoor Unit	HN091MR NK5		
			Outdoor Unit	HN0913T NK0	HU051MR U44	HU071MR U44
Space Heating (According to EN14825)	Average Climate Water Outlet 35 °C	SCOP	-	4.65	4.65	4.65
		Seasonal Space Heating Efficiency (η _s)	%	183	183	183
		Seasonal Space Heating Eff. Class	-	A+++	A+++	A+++
	Average Climate Water Outlet 55 °C	SCOP	-	3.23	3.23	3.23
		Seasonal Space Heating Efficiency (η _s)	%	126	126	126
		Seasonal Space Heating Eff. Class	-	A++	A++	A++
Description			Indoor Unit	HN0913T NK0		
Domestic Hot Water Efficiency ¹⁾ (According to EN 16147)	Declared Load Profile		-	L	L	XL
		Water Heating Efficiency (η _{wh})	%	133	133	140
	COP _{DHW}	-	3.15	3.15	3.40	
	Water Heating Eff. Class	-	A+	A+	A+	
	Declared Load Profile		-	L	L	XL
		Water Heating Efficiency (η _{wh})	%	160	160	170
	COP _{DHW}	-	3.69	3.69	4.10	
	Water Heating Eff. Class	-	A++	A++	A++	
	Declared Load Profile		-	L	L	XL
		Water Heating Efficiency (η _{wh})	%	110	110	115
	COP _{DHW}	-	2.54	2.54	2.65	
	Water Heating Eff. Class	-	A	A	A	

1) The domestic hot water efficiency is only for IWT type indoor units.

For R32 Split 5/7/9 kW IWT



For R32 Split 5/7/9 kW Hydro Box



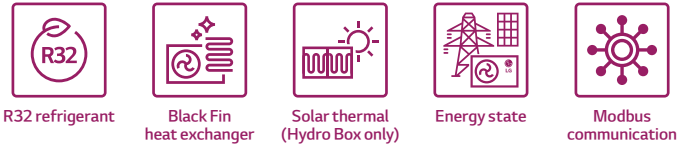
* 9 kW 1 Ø model.
* A+++ to D scale.



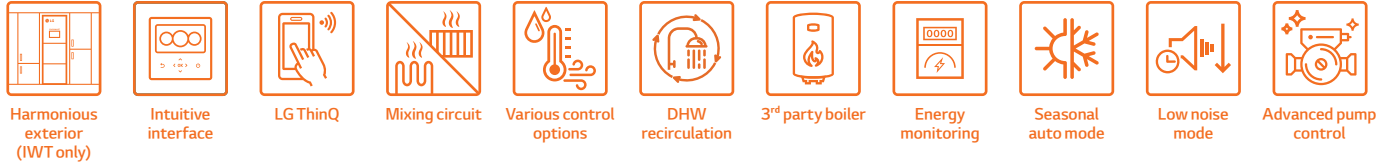
Easy Installation



Excellent Performance & Efficiency

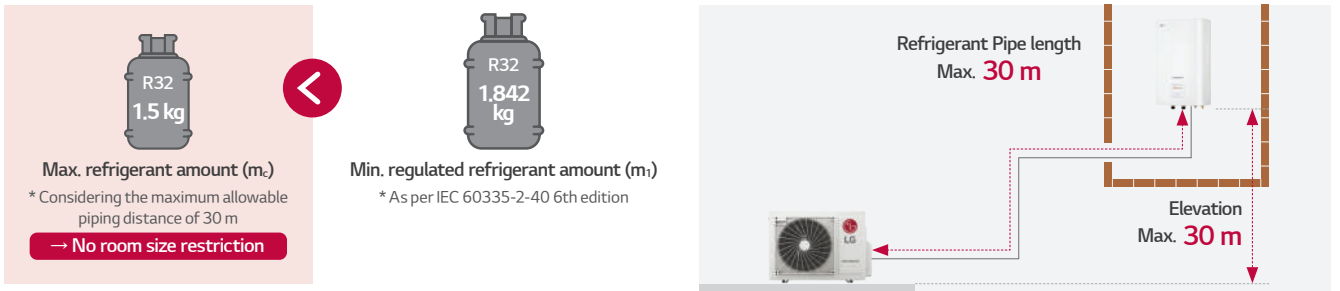


User Convenience



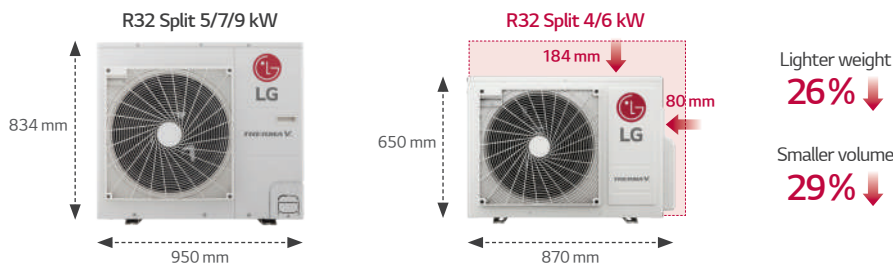
Small refrigerant amount - Free from minimum floor area requirements due to R32 refrigerant

Minimum floor space requirements do not apply to R32 Split 4/6 kW, as the maximum refrigerant amount (including 30 m pipes) used in the product is smaller than the minimum set for regulation. As a result, there are more opportunities for flexible design and installation.



Compact size and light weight

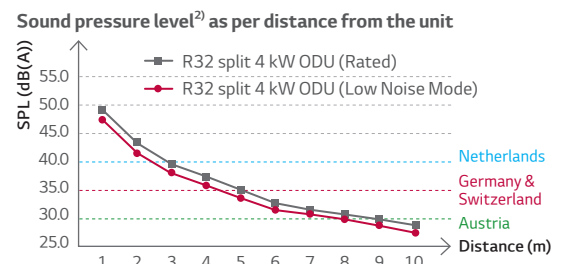
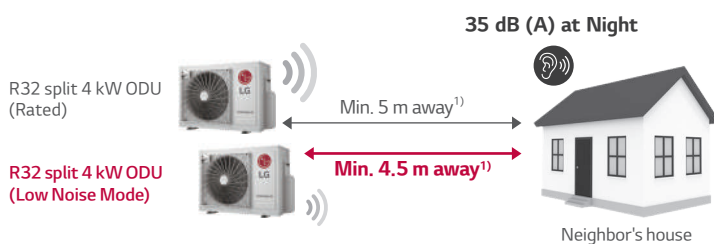
The unit's compact size and light weight make it easy to handle and install.



Reduced noise level

The R32 Split outdoor unit can be installed at the minimum of 4.5 m away¹⁾ from neighboring houses while complying with noise-related requirements in most European countries, including Germany. (based on 4 kW ODU & 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 tonality penalty of 0 dB and installation in free-field. The directivity index (Q) is assumed as 2.

Easy Installation

- Flexible piping design
- Clip connection
- All-in-one (IWT only)
- Easy drain (IWT only)

Excellent Performance & Efficiency

- R1 compressor
- R32 refrigerant
- Flash gas injection
- Wide operation range
- Black Fin heat exchanger
- Solar thermal (Hydro Box only)
- Energy state
- Modbus communication

User Convenience

- Harmonious exterior (IWT only)
- Intuitive interface
- LG ThinQ
- Mixing circuit
- Various control options
- DHW recirculation
- 3rd party boiler
- Energy monitoring
- Seasonal auto mode
- Low noise mode
- Advanced pump control

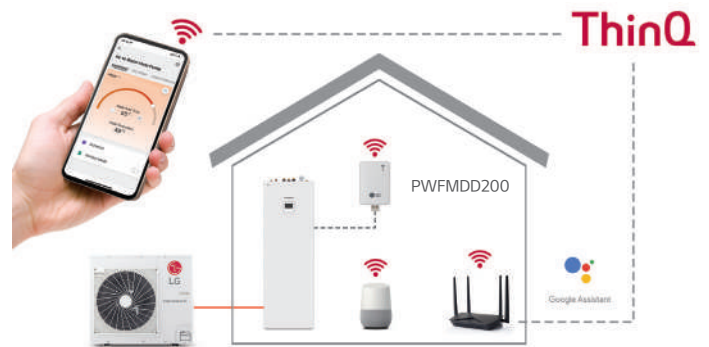
RI Compressor™ Revolutionary Technology

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

- Extended operation range (max. 135 Hz)**
- Centrifugal oil return & Oil separating guide for oil discharge reduction**
- Shaft-through structure with support for both ends of the shaft**
 - Solid compressor operation assuring higher durability
- Bottom compression & Simple structure**
 - Lower noise & vibration
 - Less weight
 - Superior reliability

ThinQ Seamless Connectivity

LG ThinQ, a smartphone app, allows users to monitor and manage compatible LG products remotely, which means they can set the temperature and regulate the use of their THERMA V anytime and anywhere. In most EU countries, LG ThinQ technology also works with Google Assistant letting users control their Therma V with voice commands.



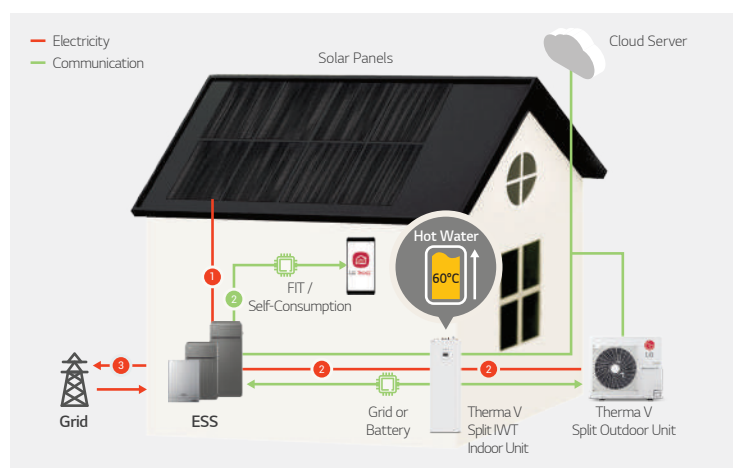
Mandatory Accessory: PWFMD200 (LG Wi-Fi Modem) / PWYREW000 (10 m extension connect cable in between THERMA V indoor and LG Wi-Fi Modem) could be required depending on installation conditions.

* Search "LG ThinQ" on Google market or App store, then download the app.
* Google assistant voice control may be restricted in use and language in some countries.

Energy States Interlock

LG Therma V provides an energy state interlock function that enables customers to use as much as possible of their own renewable energy. It can shift indoor unit set points depending on input signal from Energy Storage System (ESS) or any other third-party device using Modbus or Digital 230 V inputs.

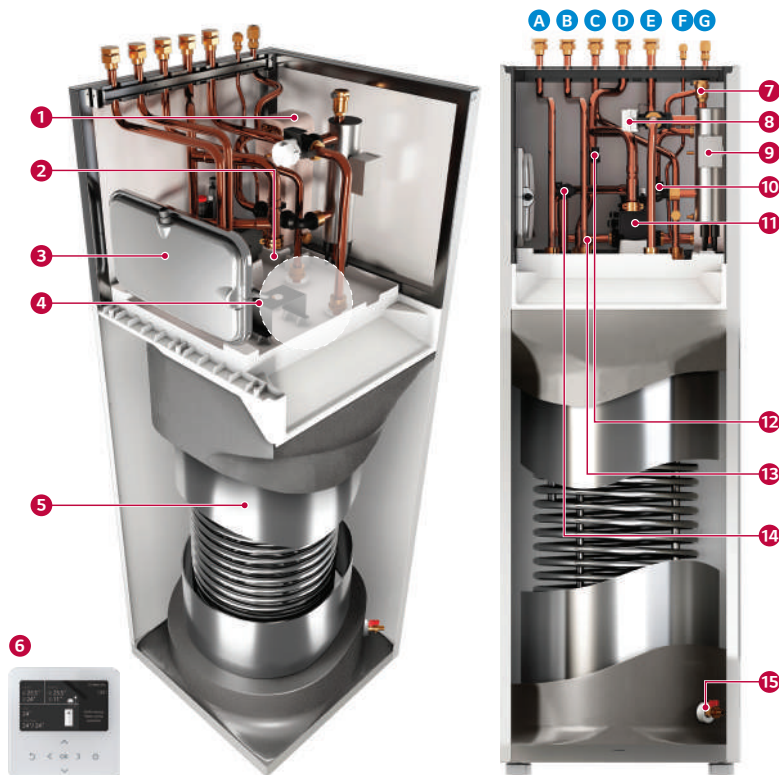
- 1) Energy is generated from panels and sent to your battery.
- 2) Once the battery is fully charged, the surplus energy from ESS will heat the water tank. The user gets to monitor the status with the LG ThinQ app.
- 3) Once the water is heated, the user can choose to sell surplus energy to the grid.



IWT Indoor Unit

HN0613T NK0 (for R32 Split 4/6 kW)

HN0913T NK0 (for R32 Split 5/7/9 kW)



Components

- 1 Plate heat exchanger (ref. / water)
- 2 Strainer
- 3 Expansion tank for heating (8 ℓ)
- 4 Reserved space for DHW expansion tank
- 5 DHW storage tank (stainless steel, 200 ℓ) with internal coil type heat exchanger
- 6 Standard III remote controller (attached on front panel)
- 7 Air vent valve
- 8 3 Way diverting valve (DC)
- 9 Electric back-up heater (3 kW)
- 10 Water flow sensor
- 11 Main water pump with air vent and safety valve (water circuit, 3 bar)
- 12 Water pressure sensor
- 13 Drain valve for water circuit
- 14 Safety valve (DHW tank, 10 bar)
- 15 Drain valve for DHW tank

Connections

- A DHW recirculation pipe (female G1" *)
- B Domestic hot water outlet pipe (female G1" *)
- C Domestic cold water inlet pipe (female G1" *)
- D Heating circuit inlet pipe (female G1" *)
- E Heating circuit outlet pipe (female G1" *)
- F Refrigerant liquid pipe (SAE 3/8" **)
- G Refrigerant gas pipe (SAE 5/8" **)

* According to ISO 228-1 (parallel pipe threads)

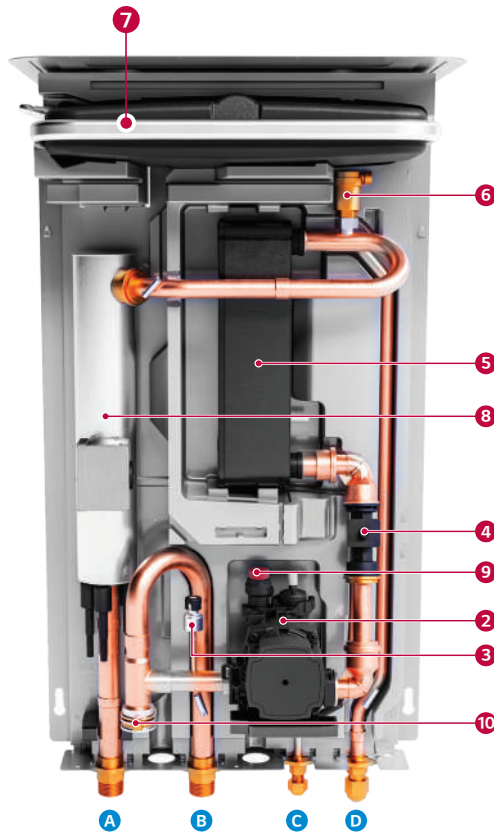
** In case of Split 4/6 kW model, the adaptors provided with the outdoor unit must be separately installed on the gas/liquid connection of the indoor unit when connecting the refrigerant pipe. After installing the adaptors, the liquid and gas connection size becomes Ø 6.35 (1/4 inch) and Ø 12.7 (1/2 inch) respectively.



Hydro Box Indoor Unit

HN0613M NK5 (for R32 Split 4/6 kW)

HN091MR NK5 (for R32 Split 5/7/9 kW)



Components

- 1 Standard III remote controller (attached on the front panel)
- 2 Water pump
- 3 Water pressure sensor
- 4 Flow sensor
- 5 Plate type heat exchanger (ref/water)
- 6 Air vent valve
- 7 Expansion vessel (8 ℓ)
- 8 Back up electric heater (6 kW for HN091MR NK5, 3 kW for HN0613M NK5)
- 9 Safety valve
- 10 Strainer

Connections

- A Heating circuit outlet pipe (male PT 1" *)
- B Heating circuit inlet pipe (male PT 1" *)
- C Refrigerant liquid pipe (SAE 3/8" **)
- D Refrigerant gas pipe (SAE 5/8" **)

* According to ISO 7-1 (tapered pipe threads)

** In case of Split 4/6 kW model, the adaptors provided with the outdoor unit must be separately installed on the gas/liquid connection of the indoor unit when connecting the refrigerant pipe. After installing the adaptors, the liquid and gas connection size becomes $\varnothing 6.35$ (1/4 inch) and $\varnothing 12.7$ (1/2 inch) respectively.



Therma V R32 Split 4/6 kW

IWT / Hydro Box

Performance Table for Heating Operation

Maximum Heating Capacity (Including Defrost Effect)

HU041MR U20 + HN0613T NK0 (IWT) / HN0613M NK5 (Hydro Box)

Outdoor Temperature	LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C
	Capacity (kW)					
-20 °C DB	4.00	4.00	4.00	4.00		
-15 °C DB	4.00	4.00	4.00	4.00	4.00	
-7 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
-4 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
-2 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
2 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
7 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
10 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
15 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
18 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
20 °C DB	4.00	4.00	4.00	4.00	4.00	4.00
35 °C DB	4.00	4.00	4.00	4.00	4.00	4.00

HU061MR U20 + HN0613T NK0 (IWT) / HN0613M NK5 (Hydro Box)

Outdoor Temperature	LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C
	Capacity (kW)					
-20 °C DB	4.92	4.78	4.64	4.50		
-15 °C DB	5.56	5.52	5.48	5.44	5.40	
-7 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
-4 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
-2 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
2 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
7 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
10 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
15 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
18 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
20 °C DB	6.00	6.00	6.00	6.00	6.00	6.00
35 °C DB	6.00	6.00	6.00	6.00	6.00	6.00

Performance Table for Cooling Operation

Maximum Cooling Capacity

HU041MR U20 + HN0613T NK0 (IWT) / HN0613M NK5 (Hydro Box)

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	4.00	4.00	4.00	4.00	4.00	4.00	4.00
20 °C DB	4.00	4.00	4.00	4.00	4.00	4.00	4.00
30 °C DB	4.00	4.00	4.00	4.00	4.00	4.00	4.00
35 °C DB	4.00	4.00	4.00	4.00	4.00	4.00	4.00
40 °C DB	4.00	4.00	4.00	4.00	4.00	4.00	4.00
45 °C DB	4.00	4.00	4.00	4.00	4.00	4.00	4.00

HU061MR U20 + HN0613T NK0 (IWT) / HN0613M NK5 (Hydro Box)

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	6.00	6.00	6.00	6.00	6.00	6.00	6.00
20 °C DB	6.00	6.00	6.00	6.00	6.00	6.00	6.00
30 °C DB	6.00	6.00	6.00	6.00	6.00	6.00	6.00
35 °C DB	6.00	6.00	6.00	6.00	6.00	6.00	6.00
40 °C DB	5.74	5.81	5.87	5.91	6.00	6.00	6.00
45 °C DB	5.48	5.61	5.73	5.81	5.94	6.00	6.00

Therma V R32 Split 5/7/9 kW

IWT

Performance Table for Heating Operation

Maximum Heating Capacity (Including Defrost Effect)

HU051MR U44 + HN0913T NK0 (IWT)

Outdoor Temperature	LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C	LWT 65 °C
	Capacity (kW)							
-25 °C DB	4.02	3.90	3.78	3.66				
-20 °C DB	4.64	4.51	4.38	4.26	4.13			
-15 °C DB	5.26	5.12	4.99	4.85	4.72	4.58		
-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	
-2 °C DB	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

HU071MR U44 + HN0913T NK0 (IWT)

Outdoor Temperature	LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C	LWT 65 °C
	Capacity (kW)							
-25 °C DB	5.00	4.85	4.71	4.56				
-20 °C DB	5.58	5.43	5.27	5.11	4.95			
-15 °C DB	6.17	6.00	5.83	5.66	5.49	5.32		
-7 °C DB	7.00	7.00	7.00	7.00	7.00	7.00	6.49	
-4 °C DB	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	
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

HU091MR U44 + HN0913T NK0 (IWT)

Outdoor Temperature	LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C	LWT 65 °C
	Capacity (kW)							
-25 °C DB	6.40	6.20	6.00	5.80				
-20 °C DB	7.23	7.00	6.77	6.54	6.31			
-15 °C DB	8.06	7.80	7.54	7.28	7.02	7.10		
-7 °C DB	9.00	9.00	9.00	9.00	9.00	9.00	8.60	
-4 °C DB	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	
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	7.95

Performance Table for Cooling Operation

Maximum Cooling Capacity

HU051MR U44 + HN0913T NK0 (IWT)

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	5.32	5.34	5.35	5.37	5.38	5.40	5.41
45 °C DB	5.13	5.17	5.21	5.23	5.27	5.29	5.32

HU071MR U44 + HN0913T NK0 (IWT)

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	6.50	6.63	6.81	7.00	7.00	7.00	7.00
45 °C DB	6.43	6.48	6.63	6.66	6.70	6.74	6.77

HU091MR U44 + HN0913T NK0 (IWT)

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	8.10	8.10	8.70	9.00	9.00	9.00	9.00
45 °C DB	7.50	7.70	7.80	7.90	8.00	8.10	8.20

Note

- DB : Dry Bulb Temperature (°C), LWT : Leaving Water Temperature (°C)
- Direct interpolation is permissible. Do not extrapolate.
- 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.
- The shaded areas are not guaranteed continuous operation.

Performance Table for Heating Operation

Maximum Heating Capacity (Including Defrost Effect)

HU051MR U44 + HN091MR NK5 (Hydro Box)

Outdoor Temperature		LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C	LWT 65 °C
		Capacity (kW)							
-25	°C DB	4.02	3.90	3.78	3.66				
-20	°C DB	4.64	4.51	4.38	4.26	4.13			
-15	°C DB	5.26	5.12	4.99	4.85	4.72	4.58		
-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	
-2	°C DB	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

HU071MR U44 + HN091MR NK5 (Hydro Box)

Outdoor Temperature		LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C	LWT 65 °C
		Capacity (kW)							
-25	°C DB	5.00	4.85	4.71	4.56				
-20	°C DB	5.58	5.43	5.27	5.11	4.95			
-15	°C DB	6.17	6.00	5.83	5.66	5.49	5.32		
-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	
-2	°C DB	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

HU091MR U44 + HN091MR NK5 (Hydro Box)

Outdoor Temperature		LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C	LWT 65 °C
		Capacity (kW)							
-25	°C DB	6.40	6.20	6.00	5.80				
-20	°C DB	7.23	7.00	6.77	6.54	6.31			
-15	°C DB	8.06	7.80	7.54	7.28	7.02	6.76		
-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	
-2	°C DB	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

Performance Table for Cooling Operation

Maximum Cooling Capacity

HU051MR U44 + HN091MR NK5 (Hydro Box)

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	6.42	6.95	7.49	7.85	8.39	8.75	9.11
20	°C DB	6.05	6.37	6.70	6.91	7.23	7.45	7.66
30	°C DB	5.68	5.79	5.90	5.97	6.08	6.15	6.22
35	°C DB	5.50	5.50	5.50	5.50	5.50	5.50	5.50
40	°C DB	5.32	5.34	5.35	5.37	5.38	5.40	5.41
45	°C DB	5.13	5.17	5.21	5.23	5.27	5.29	5.32

HU071MR U44 + HN091MR NK5 (Hydro Box)

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	8.17	8.85	9.54	9.99	10.68	11.13	11.59
20	°C DB	7.70	8.11	8.52	8.80	9.21	9.48	9.75
30	°C DB	7.23	7.37	7.51	7.60	7.74	7.83	7.92
35	°C DB	7.00	7.00	7.00	7.00	7.00	7.00	7.00
40	°C DB	6.77	6.79	6.81	6.83	6.85	6.87	6.88
45	°C DB	6.53	6.58	6.63	6.66	6.70	6.74	6.77

HU091MR U44 + HN091MR NK5 (Hydro Box)

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	10.50	11.38	12.26	12.85	13.73	14.31	14.90
20	°C DB	9.90	10.43	10.96	11.31	11.84	12.19	12.54
30	°C DB	9.30	9.48	9.65	9.77	9.95	10.06	10.18
35	°C DB	9.00	9.00	9.00	9.00	9.00	9.00	9.00
40	°C DB	8.70	8.73	8.76	8.78	8.81	8.83	8.85
45	°C DB	8.40	8.46	8.52	8.56	8.62	8.66	8.70

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.



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