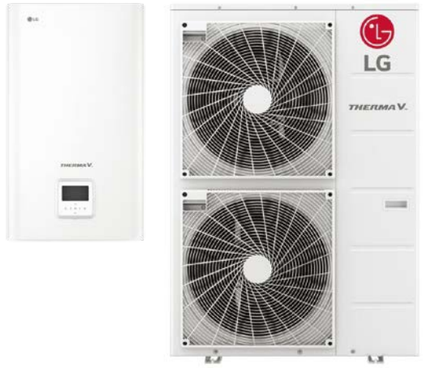
THERMA V R32 HYDROSPLIT HYDRO UNIT

Outdoor unit

HU121MRB U30 / HU123MRB U30
HU141MRB U30 / HU143MRB U30
HU161MRB U30 / HU163MRB U30

Indoor unit

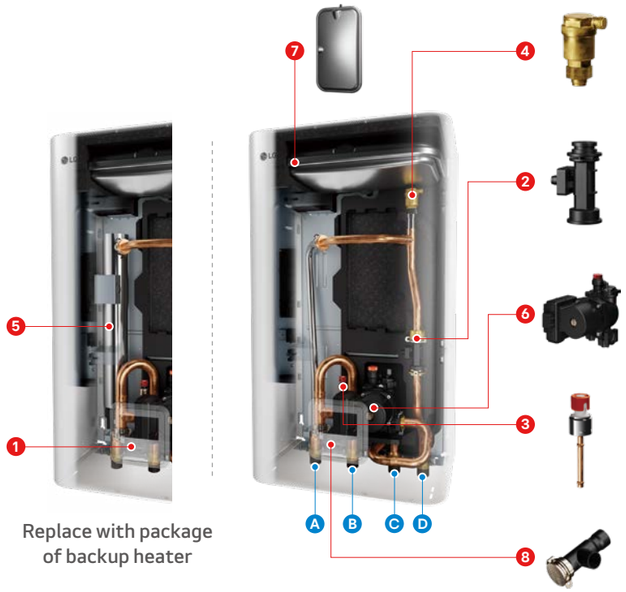
HN1600MC NK1



011-1W0382

Key Components

Hydro Unit



Replace with package of backup heater

Components

1. Standard III remote controller [1] (air temp. sensor integrated)
2. Flow sensor
3. Water pressure sensor
4. Air vent valve
5. Backup electric heater (6 kW, accessory)
6. Water pump
7. Expansion vessel (8 ℓ)
8. Strainer

1) Temperature control class (ERP class) : V

Connections

- A Heating circuit outlet pipe (male PT 1")
- B Heating circuit inlet pipe (male PT 1")
- C Outlet pipe to outdoor unit (male PT 1")
- D Inlet pipe from outdoor unit (male PT 1")

Product Specification

Efficiency Data		Unit	12 kW (1 Ø) 12 kW (3 Ø)	14 kW (1 Ø) 14 kW (3 Ø)	16 kW (1 Ø) 16 kW (3 Ø)
Seasonal space heating eff. class (35°C / 55°C)		-	A+++ / A++	A+++ / A++	A+++ / A++
Seasonal space heating efficiency (η_s) (35°C / 55°C)		%	181 / 137	180 / 136	179 / 135
SCOP (35°C / 55°C)		-	4.60 / 3.50	4.57 / 3.47	4.55 / 3.45
Sound power level (outdoor unit)	Rated / low noise mode	dB(A)	61 / 60	62 / 60	63 / 60
Sound pressure level at 5m (outdoor unit)	Rated / low noise mode	dB(A)	39 / 38	40 / 38	41 / 38
Sound power level (indoor unit)	Rated	dB(A)	44		
Sound pressure level at 1m (indoor unit)	Rated	dB(A)	36		
Nominal Capacity and COP/EER					
Air +7°C / water +35°C	Heating capacity / COP	kW / -	12.00 / 5.04	14.00 / 4.89	16.00 / 4.80
Air +2°C / water +35°C	Heating capacity / COP	kW / -	11.00 / 3.65	12.00 / 3.63	13.80 / 3.60
Air +7°C / water +55°C	Heating capacity / COP	kW / -	11.00 / 2.90	11.50 / 2.85	12.00 / 2.80
Air +35°C / water +18°C	Cooling capacity / EER	kW / -	12.00 / 4.75	14.00 / 4.30	16.00 / 4.00
Air +35°C / water +7°C	Cooling capacity / EER	kW / -	12.00 / 2.70	14.00 / 2.60	16.00 / 2.50
Outdoor Units		**Unit**	**HU121MRB U30 HU123MRB U30**	**HU141MRB U30 HU143MRB U30**	**HU161MRB U30 HU163MRB U30**
Operation range (outdoor air temperature)	Heating & DHW (Min. ~ Max.)	°C	-25 ~ 35		
	Cooling (Min. ~ Max.)	°C	5 ~ 48		
Refrigerant	Type	-	R32		
	GWP	-	675		
	Precharged amount	g	2,100		
Piping connections (water)	Inlet / outlet diameter	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)		
Dimension	H x W x D	mm	1,380 x 950 x 330		
Weight	Net	kg	91.7		
Exterior	Color of chassis / RAL code	-	Warm gray / RAL 7044		
Power supply	Voltage, phase, frequency (1Ø, 3Ø)	V, Ø, Hz	220 - 240, 1, 50 / 380 - 415, 3, 50		
	Standby power consumption	W	60		
	Recommended circuit breaker (1Ø, 3Ø)	A	40 / 16		
Indoor Units		**Unit**	**HN1600MC NK1**		
Operation range (leaving water temperature)	Heating (Min. ~ Max.)	°C	15 ~ 65		
	Cooling (Min. ~ Max.)	°C	5 ~ 27		
	DHW (Min. ~ Max.)	°C	15 ~ 80		
Expansion vessel (heating circuit)	Volume	ℓ	8		
Piping connections (water)	Outlet to outdoor unit	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)		
	Inlet from outdoor unit	inch			
	Outlet to heat load	inch			
	Inlet from heat load	inch			
Dimension	H x W x D	mm	850 x 490 x 315		
Weight	Net	kg	30.5		
Exterior	Color / RAL code	-	Noble white / RAL 9016		

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 not a value declared on Eurovent Program and 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 according to ErP regulation.
5. This product contains fluorinated greenhouse gases.
6. All installation sites must be equipped with an earth leakage circuit breaker (ELCB).
7. DHW 55 ~ 80°C Operating is available only when the booster heater is operating.

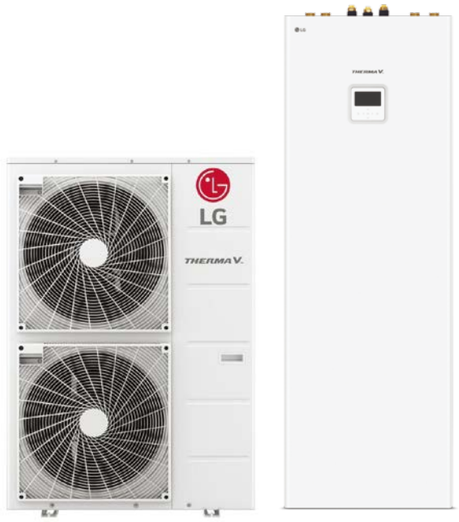
THERMA V R32 HYDROSPLIT COMBI UNIT

Outdoor unit

HU121MRB U30 / HU123MRB U30
HU141MRB U30 / HU143MRB U30
HU161MRB U30 / HU163MRB U30

Indoor unit

HN1616Y NB1



011-1W0466

R32 A+++ 35℃ A++ 55℃ A+ L 65℃ -25℃ ThinQ

Key Components

Combi Unit



Components

1. DHW storage tank (200 ℓ)
2. Main water pump
3. Water pump for DHW charging
4. Plate heat exchanger for DHW (water / DHW)
5. Electric heater (max. 6 kW)
6. 3-way diverting valve
7. Expansion vessel for heating (12 ℓ)
8. Flow sensor
9. Water pressure sensor
10. Expansion vessel for DHW (8 ℓ, option)
11. Buffer tank (40 ℓ, option)
12. Standard III remote controller [1)] (attached on the front panel)

1) Temperature control class (ERP class) : V

Connections

- A Inlet pipe from outdoor unit (female G1")
- B Outlet pipe to outdoor unit (female G1")
- C Domestic hot water outlet pipe (female G3/4")
- D Domestic cold water outlet pipe (female G3/4")
- E DHW recirculation pipe (female G3/4")
- F Heating circuit inlet pipe (female G1")
- G Heating circuit outlet pipe (female G1")

Product Specification

Efficiency Data		Unit	12 kW (1 Ø) 12 kW (3 Ø)	14 kW (1 Ø) 14 kW (3 Ø)	16 kW (1 Ø) 16 kW (3 Ø)
Seasonal space heating eff. class (35°C / 55°C)		-	A+++ / A++	A+++ / A++	A+++ / A++
Seasonal space heating efficiency (η_s) (35°C / 55°C)		%	181 / 137	180 / 136	179 / 135
SCOP (35°C / 55°C)		-	4.60 / 3.50	4.57 / 3.47	4.55 / 3.45
Declared load profile, average climate		-	L	L	L
Water heating efficiency (η_{WH}), average climate		%	120	120	120
COP_{DHW}, average climate		-	2.74	2.74	2.74
Water heating eff. class, average climate		-	A+	A+	A+
Annual energy consumption, DHW (average climate)		kWh	850	850	850
Heating up time acc. to EN 16147 (average climate)		h/mm	1h 25	1h 25	1h 25
Max. usable water volume acc. to EN 16147 (average climate)		ℓ	222	222	222
Declared load profile, warmer climate		-	L	L	L
Water heating efficiency (η_{WH}), warmer climate		%	151	151	151
COP_{DHW}, warmer climate		-	3.43	3.43	3.43
Water heating eff. class, warmer climate		-	A++	A++	A++
Declared load profile, colder climate		-	L	L	L
Water heating efficiency (η_{WH}), colder climate		%	101	101	101
COP_{DHW}, colder climate		-	2.34	2.34	2.34
Water heating eff. class, colder climate		-	A	A	A
Sound power level (outdoor unit)	Rated / low noise mode	dB(A)	61 / 60	62 / 60	63 / 60
Sound pressure level at 5m (outdoor unit)	Rated / low noise mode	dB(A)	39 / 38	40 / 38	41 / 38
Sound power level (indoor unit)	Rated	dB(A)	43		
Sound pressure level at 1m (indoor unit)	Rated	dB(A)	35		
Nominal Capacity and COP/EER					
Air +7°C / water +35°C	Heating capacity / COP	kW / -	12.00 / 5.04	14.00 / 4.89	16.00 / 4.80
Air +2°C / water +35°C	Heating capacity / COP	kW / -	11.00 / 3.65	12.00 / 3.63	13.80 / 3.60
Air +7°C / water +55°C	Heating capacity / COP	kW / -	11.00 / 2.90	11.50 / 2.85	12.00 / 2.80
Air +35°C / water +18°C	Cooling capacity / EER	kW / -	12.00 / 4.75	14.00 / 4.30	16.00 / 4.00
Air +35°C / water +7°C	Cooling capacity / EER	kW / -	12.00 / 2.70	14.00 / 2.60	16.00 / 2.50

Note
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4. Performances are in accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions according to ErP regulation.
5. This product contains fluorinated greenhouse gases.
6. All installation sites must be equipped with an earth leakage circuit breaker (ELCB).
7. DHW 55 ~ 80°C Operating is available only when the booster heater is operating.

THERMA V R32 HYDROSPLIT COMBI UNIT

Product Specification

Outdoor Units		Unit	HU121MRB U30 HU123MRB U30	HU141MRB U30 HU143MRB U30	HU161MRB U30 HU163MRB U30
Operation range (outdoor air temperature)	Heating & DHW (Min. ~ Max.)	°C	-25 ~ 35		
	Cooling (Min. ~ Max.)	°C	5 ~ 48		
Refrigerant	Type	-	R32		
	GWP	-	675		
	Precharged amount	g	2,100		
Piping connections (water)	Inlet / outlet diameter	inch	Male PT 1" according to ISO 7-1 (tapered pipe threads)		
Dimension	H x W x D	mm	1,380 x 950 x 330		
Weight	Net	kg	91.7		
Exterior	Color of chassis / RAL code	-	Warm gray / RAL 7044		
Power supply	Voltage, phase, frequency	V, Ø, Hz	220 - 240, 1, 50 / 380 - 415, 3, 50		
	Standby power consumption	W	60		
	Recommended circuit breaker	A	40 / 16		
Indoor Units		**Unit**	**HN1616Y NB1**		
Operation range (leaving water temperature)	Heating (Min. ~ Max.)	°C	15 ~ 65		
	Cooling (Min. ~ Max.)	°C	5 ~ 27		
	DHW (Min. ~ Max.)	°C	15 ~ 80		
Domestic hot water tank	Volume	ℓ	200		
	Tank material	-	Enameled steel		
	Standby losses	-	61		
Expansion vessel (heating circuit)	Volume	ℓ	12		
Electric heater (Case 1 / Case 2 / Case 3)	Capacity combination	kW	2.0 / 2.0 + 2.0 / 2.0 + 2.0 + 2.0		
	Heating steps	Steps	1		
	Power supply	V, Ø, Hz	220 - 240, 1, 50 / 220 - 240, 1, 50 / 380 - 415, 3, 50		
	Rated running current	A	8.7 / 17.4 / 8.7		
Piping connections (water)	Outlet to outdoor unit	inch	Female G1" according to ISO228-1 (parallel pipe threads)		
	Inlet from outdoor unit	inch			
	Outlet to heat load	inch			
	Inlet from heat load	inch			
	Inlet / outlet diameter for DHW	inch	Female G3/4" according to ISO228-1 (parallel pipe threads)		
	Recirculation	inch			
Dimension	H x W x D	mm	1,812 x 601 x 685		
Weight	Net	kg	130.0		
Exterior	Color / RAL code	-	White / RAL 9002		

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4. Performances are in accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions according to ErP regulation.
5. This product contains fluorinated greenhouse gases.
6. All installation sites must be equipped with an earth leakage circuit breaker (ELCB).
7. DHW 55 ~ 80°C Operating is available only when the booster heater is operating.

Accessory Parts (Optional Accessory)

Buffer Tank for Space Heating



A standard 40 ℓ buffer tank for can be installed as an optional accessory for space heating. Fitting seamlessly into the main casing, it can be attached to the backside of the indoor unit.

Electrical Specification		Unit	OSHB-40KT AEU
Water volume		ℓ	40
Dimensions (H x W x D)		mm	518 x 560 x 175
Weight (w/o water)	Product	kg	24

* The buffer tank for space heating should be purchased and installed separately.

Expansion Vessel for DHW



A standard 8 ℓ DHW expansion vessel, that conveniently fits inside the indoor unit, can be installed as an optional accessory. It is provided with an accessory kit that includes a flexible connection tube.

Electrical Specification		Unit	OSHE-12KT AEU
Water volume		ℓ	8
Connection		inch	3/4
Max. pressure		bar	10
Pre-charge		bar	3
Dimensions (H x W x D)		mm	416 x 238 x 502
Weight (w/o water)	Product	kg	2.5

* The expansion vessel for DHW should be purchased and installed separately.

Supplied Parts

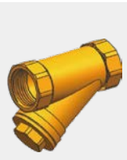
Shut-off Valve



Shut-off Valve with Strainer



Strainer



Technical Specification		Unit	Details
Material	Body	-	Brass
	Mesh	-	Stainless steel (STS304)
Mesh	Mesh no.	-	30
	Max. particle size	mm	0.6
Piping connection		-	Female G1" according to ISO 228-1

* The strainer and valves are supplied with the product, but it need to be installed separately.
* This strainer should be installed at the inlet connection of the outdoor unit to protect the clogging of a plate heat exchanger.