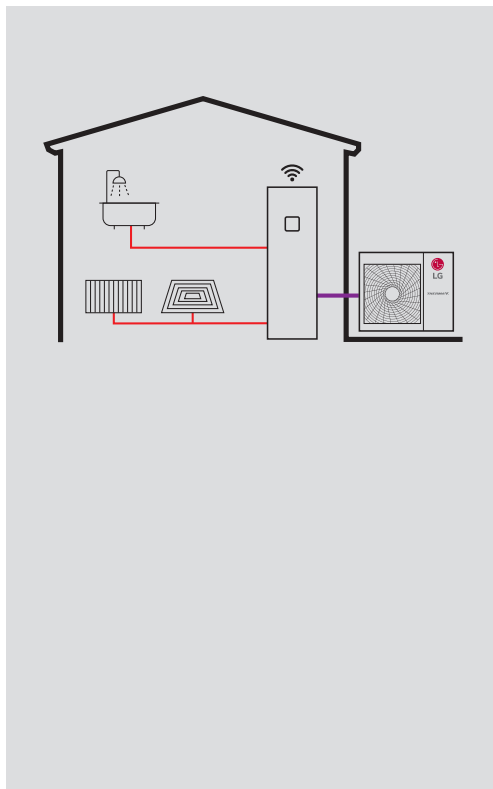
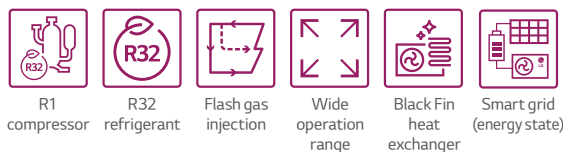


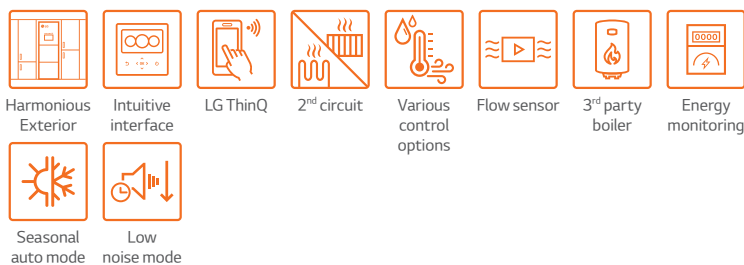
R32 IWT (INTEGRATED WATER TANK)



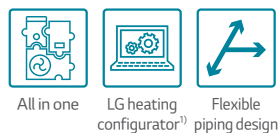
Excellent Performance & Efficiency



User Convenience



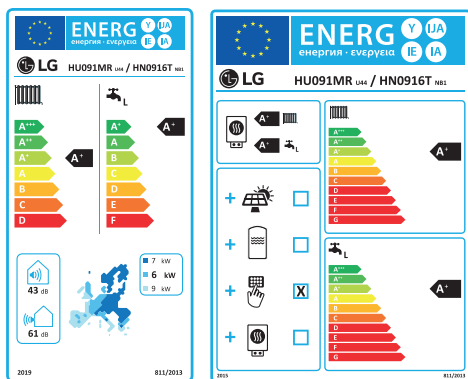
Easy Installation & Maintenance



1) Will be supported within this year.

* Detailed description for each function is presented on page 26 - 43.

Energy Labeling



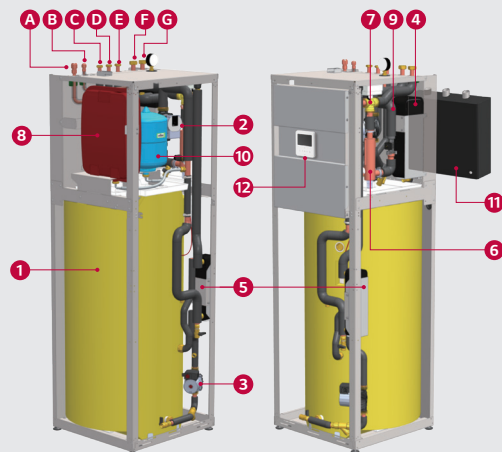
* 9kW 10 model.

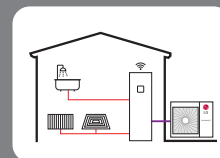
* A+++ to D scale.

IWT (Integrated Water Tank) Concept

THERMA V R32 IWT, or integrated water tank, is a domestic hot water supply, space heating and cooling solution that conveniently combines an indoor hot water tank with a separate outdoor unit. THERMA V R32 IWT is the perfect space-saving solution for residential applications because hydronic components like the Domestic Hot Water (DHW) and buffer tanks, which are typically installed separately, are fully integrated.

- DHW storage tank (200ℓ)
- Main water pump
- Water pump for DHW charging
- Main plate heat exchanger (ref./water)
- Plate heat exchanger for DHW (water/DHW)
- Back up electric heater (max. 6kW)
- 3 Way diverting valve
- Expansion vessel for heating (12ℓ)
- Flow sensor
- Expansion vessel for DHW (8ℓ, option)
- Buffer tank (40ℓ, option)
- RS3 Remote controller (attached on the front panel)
- 5/8" Refrigerant gas pipe
- 3/8" Refrigerant liquid pipe
- G3/4" Domestic hot water outlet
- G3/4" Domestic cold water inlet
- G3/4" DHW Re-circulation
- G1" Heating circuit inlet
- G1" Heating circuit outlet



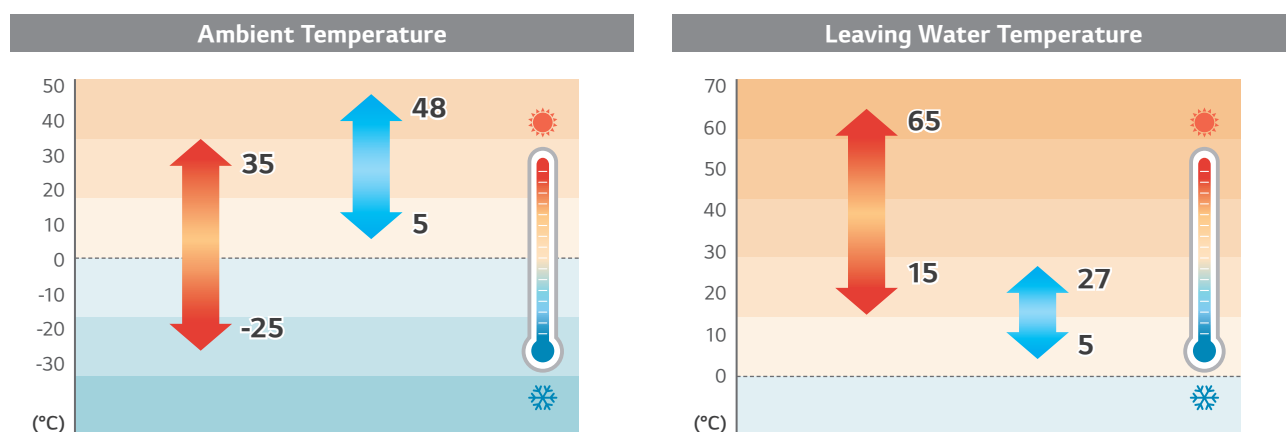


Capacity Range (Heating & Cooling)

R32 IWT

Capacity Range [kW]	5	7	9
Heating Capacity	● (5.5)	● (7.0)	● (9.0)
Cooling Capacity	● (5.5)	● (7.0)	● (9.0)

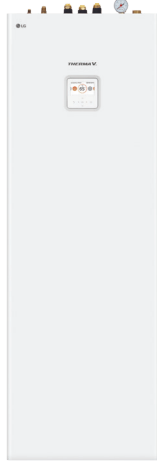
Operation Range (Heating & Cooling)



PRODUCT FEATURES

Save Space & Time

Compared with conventional system, easy & quick installation is possible and smaller spaces are required for installation.

Conventional	R32 IWT (Integrated Water Tank)
 Expansion Tank AWHP Indoor Unit Water Tank Water Pipe • Enough rooms for product installation • Need to secure the space for water tank • More water piping work & more installation time	 All in One • Small footprint for product installation • Quick & easy installation • DHW tank (200ℓ) & hydronic component integration • Integrated max. 6kW back up heater • Integrated expansion tank for heating (12ℓ) • Integrable buffer tank (40ℓ) & expansion tank for DHW circuit (8ℓ) (optional)

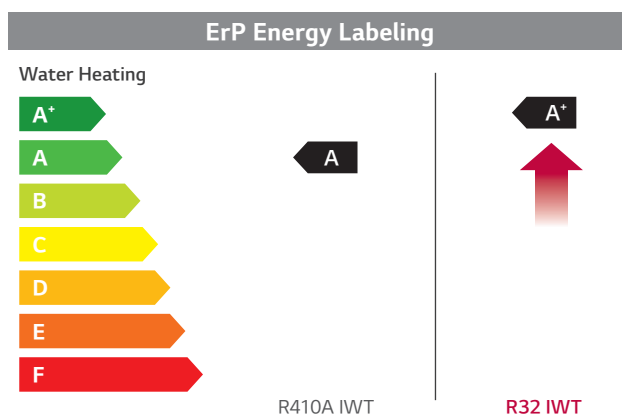
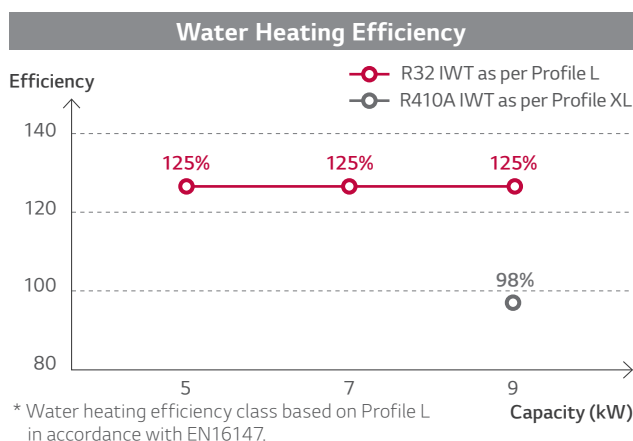
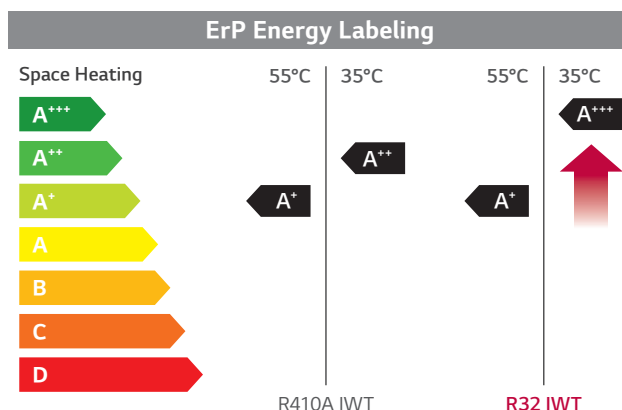
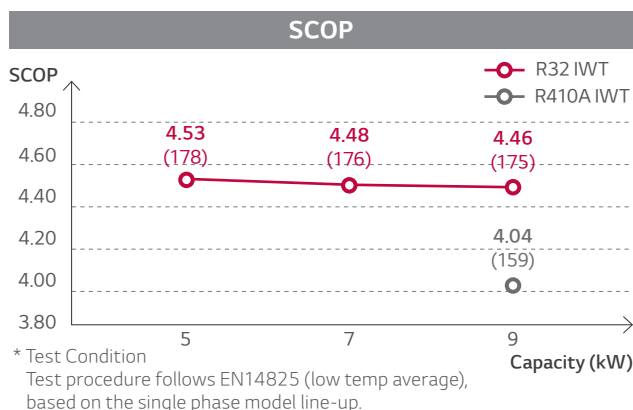
Sophisticated and Harmonious Exterior

The THERMA V R32 IWT indoor unit can be installed in multiple indoor spaces, to include the utility or laundry room, garage or kitchen due to its sleek design.



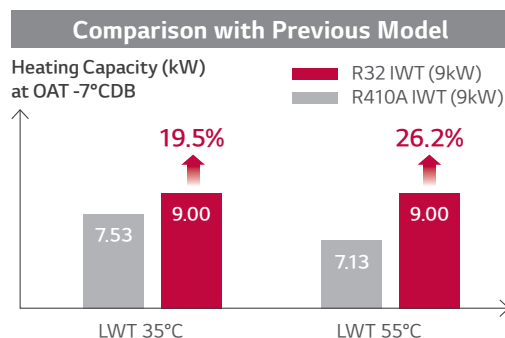
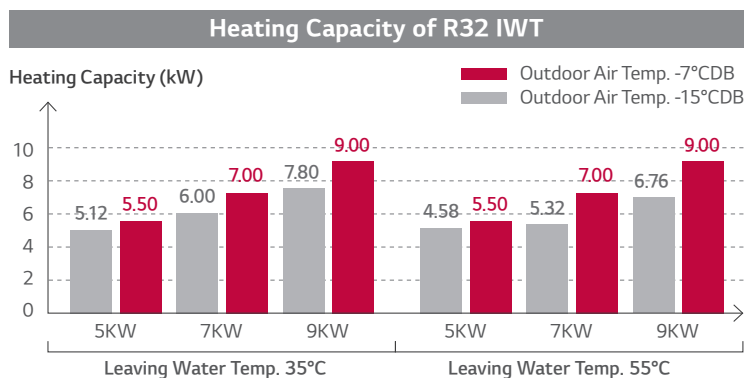
High Energy Efficiency

The energy label directive is a key factor in selecting a heating device in the European heating market. The R32 IWT has an energy label rating (ErP) for space heating of A+++. Furthermore, As all new buildings in EU countries to be nearly Zero-Energy Building (nZEB) by the end of 2020, Water Heating Efficiency is getting more important. The R32 IWT has an A+ water heating efficiency class at Declared load profile L.



High Heating Performance even at Low Temperature

The R32 IWT provides excellent heating performance – especially at low ambient temperatures. Its heating capacity at OAT -7°CDB is the same as normal capacity and heating capacity at OAT -15°CDB reaches more than 85% of normal capacity. The heating capacity of the R32 IWT is 19.5% higher at low ambient temperatures and 26.2% higher at mid ambient temperatures than the R410A IWT.



PRODUCT SPECIFICATION

R32 IWT

IDU

HN0916T NB1

ODU

HU051MR U44

HU071MR U44

HU091MR U44



R1 Compressor™

Black Fin



LG ThinQ

011-1W0382 EHPA for Switzerland and Germany

Features

- High energy efficiency (SCOP up to 4.52 / A+++ and water heating efficiency 125%)
- DHW tank (200ℓ) & hydronic component integration
- Integrable buffer tank (40ℓ) & expansion tank for DHW circuit (8ℓ) (optional)
- Excellent performance at low ambient temperature (100% @ -7°C)
- Wide operation range (ambient: -25 ~ 35°C / water side: 15 ~ 65°C)
- R32 refrigerant with low GWP
- R1 scroll compressor
- Black Fin heat exchanger
- LG ThinQ
- KEYMARK / EHPA certification / Eurovent certification

Model Line-up

Category	Unit	Model Name		
		Capacity (kW)		
		5.5	7.0	9.0
1 Phase Model 220 ~ 240V, 1Ø, 50Hz	Outdoor Unit	HU051MR U44	HU071MR U44	HU091MR U44
	Indoor Unit	HN0916T NB1		

Seasonal Energy

Description			Outdoor Unit	HU051MR U44	HU071MR U44	HU091MR U44
			Indoor Unit	HN0916T NB1		
Space Heating (according to EN14825)	Average Climate Water Outlet 35°C	SCOP	-	4.52	4.47	4.45
		Seasonal Space Heating Efficiency (η_s)	%	178	176	175
		Seasonal Space Heating Eff. Class (A+++ to D scale)	-	A+++	A+++	A+++
	Average Climate Water Outlet 55°C	SCOP	-	3.01	3.00	3.03
		Seasonal Space Heating Efficiency (η_s)	%	117	117	118
		Seasonal Space Heating Eff. Class (A+++ to D scale)	-	A+	A+	A+
Domestic Hot Water Efficiency acc. EN16147	Average Climate	Declared Load Profile	-	L	L	L
		Water Heating Efficiency (η_{wh})	%	125	125	125
		SOP _{DHW}	-	2.89	2.89	2.89
		Water Heating Efficiency Class	-	A+	A+	A+
	Warmer Climate	Declared Load Profile	-	L	L	L
		Water Heating Efficiency (η_{wh})	%	156	156	156
		SOP _{DHW}	-	3.61	3.61	3.61
		Water Heating Efficiency Class	-	-	-	-
	Colder Climate	Declared Load Profile	-	L	L	L
		Water Heating Efficiency (η_{wh})	%	106	106	106
		SOP _{DHW}	-	2.44	2.44	2.44
		Water Heating Efficiency Class	-	-	-	-

Nominal Capacity and Nominal Power Input

Description		OAT (DB)	LWT (DB)	Outdoor Unit	HU051MR U44	HU071MR U44	HU091MR U44
				Indoor Unit	HN0916T NB1		
Nominal Capacity	Heating	7°C	35°C	kW	5.50	7.00	9.00
		7°C	55°C		5.00	5.25	5.50
	Cooling	35°C	18°C		5.50	7.00	9.00
Nominal Power Input	Heating	7°C	35°C	kW	1.22	1.56	2.05
		7°C	55°C		1.92	2.02	2.12
	Cooling	35°C	18°C		1.20	1.59	2.20
COP	Heating	7°C	35°C	W/W	4.50	4.50	4.40
		7°C	55°C		2.60	2.60	2.60
EER	Cooling	35°C	18°C	W/W	4.60	4.40	4.10

PRODUCT SPECIFICATION

R32 IWT

Product Specification (Outdoor Unit)

Technical Specification			Unit	HU051MR U44	HU071MR U44	HU091MR U44
Operation Range (outdoor temp.)	Heating	Min. ~ Max.	°CDB	-25 ~ 35		
	Cooling		°C	5 ~ 48		
Compressor	Quantity		EA	1		
	Type		-	Hermetic Sealed Scroll		
Refrigerant	Type		-	R32		
	GWP (global warming potential)		-	675		
	Precharged Amount		g	1,500		
	t-CO ₂ eq		-	1.013		
Piping Connections	Outer Diameter	Gas	mm (inch)	Ø15.88 (5/8)		
		Liquid	mm (inch)	Ø9.52 (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)			LPM	15.81	20.12	25.87
Sound Power Level	Heating	Rated	dB(A)	60		
Sound Pressure Level (at 1m)	Heating	Rated	dB(A)	52		
Dimensions	Unit	W x H x D	mm	950 x 834 x 330		
Weight	Unit		kg	60.0		
Power Supply	Voltage, Phase, Frequency		V, Ø, Hz	220 ~ 240, 1, 50		
	Rated Running Current	Heating	A	5.4	6.9	9.1
		Cooling	A	5.3	7.1	9.8
	Recommended Circuit Breaker		A	16	20	25
Wiring Connections	Power Supply Cable (included earth, H07RN-F)		mm ² x cores	4.0 x 3C		

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. And "Electric characteristics" chapter should be considered for electrical work and design. 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 the reverberation rooms by ISO 9614 standard.
Therefore, these values can be increased owing to ambient conditions during operation.
Sound pressure level is converted values from sound power level as per distance.
4. Performances are based on the following conditions (It is according to EN14511) :
Interconnected pipe length is standard length and difference of elevation (outdoor ~ indoor unit) is 0m.
5. This product contains fluorinated greenhouse gases.

Product Specification (Indoor Unit)

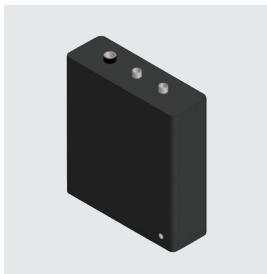
Description			Unit	HN0916T NB1
Operation Range (leaving water)	Heating	Min. ~ Max.	°C	15 ~ 65
	Cooling	Min. ~ Max.	°C	5 ~ 27 (16~27) ²⁾
	DHW ¹⁾	Min. ~ Max.	°C	15 ~ 80
Flow Sensor	Measuring Range	Min. ~ Max.	ℓ/min	5 ~ 80
Safety Valve	Heating Circuit		bar	3
	DHW Circuit		bar	10
Expansion Vessel (heating circuit)	Volume		ℓ	12
Piping Connections	Refrigerant Circuit	Gas (outer diameter)	mm (inch)	Ø 15.88 (5/8)
		Liquid (outer diameter)	mm (inch)	Ø 9.52 (3/8)
	Water Circuit	Inlet	inch	G1" (Ø 22 mm) internal thread
		Outlet	inch	G1" (Ø 22 mm) internal thread
	DHW Tank Water Circuit	Cold Water Inlet	inch	G3/4" (Ø 19.75 mm) internal
		Hot Water Outlet	inch	G3/4" (Ø 19.75 mm) internal
Domestic Hot Water Tank	Re-circulation		inch	G3/4" (Ø 19.75 mm) internal
	Water Volume	Rated	ℓ	200
Internal Thermal Protect Limit			°C	85
Sound Power Level			dB(A)	43
Dimensions (W x H x D)		Unit	mm	602 x 1,810 x 680
Weight (without water)		Unit	kg	140
Power Supply			V, Ø, Hz	220 ~ 240, 1, 50
Electric Heater	Capacity		kW	10 : 2 / 4 30 : 6
	Power Supply		V, Ø, Hz	220 ~ 240, 1, 50 / 380 ~ 415, 3, 50

1) DHW 58 ~ 80°C operating is available only when the electric heater is operating.

2) When fan coil unit not used.

Accessory Parts (Optional Accessory)

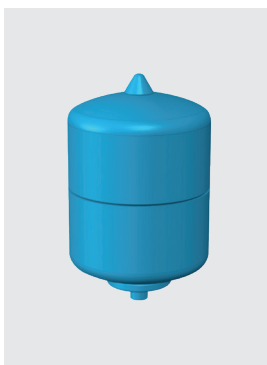
Buffer Tank for Space Heating



As an optional accessory, the installer can install a standard 40ℓ buffer tank for space heating. Fitting seamlessly into the main casing, it can be attached on the backside of the IWT unit.

Buffer tank for space heating		Unit	OSHB-40KT.AEU
Water Volume		ℓ	40
Dimensions (W x H x D)		mm	518 x 560 x 175
Weight (w/o water)	Product	kg	24

Expansion Vessel for DHW



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

Expansion vessel for DHW		Unit	OSHE-12KT.AEU
Expansion Volume		ℓ	8
Connection		inch	3/4
Max. Pressure		bar	10
Pre-charge		bar	3
Dimensions (W x H x D)		mm	416 x 238 x 502
Weight (w/o water)	Product	kg	2.5

PRODUCT SPECIFICATION

Performance Table for Heating Operation

Maximum Heating Capacity (Including Defrost Effect)

HU051MR U44 + HN0916T NB1

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
	TC	TC	TC	TC	TC	TC	TC	TC
-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 + HN0916T NB1

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
	TC	TC	TC	TC	TC	TC	TC	TC
-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 + HN0916T NB1

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
	TC	TC	TC	TC	TC	TC	TC	TC
-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

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 Cooling Operation

Maximum Cooling Capacity

HU051MR U44 + HN0916T NB1

Outdoor Temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	TC	TC	TC	TC	TC	TC	TC
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 + HN0916T NB1

Outdoor Temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	TC	TC	TC	TC	TC	TC	TC
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 + HN0916T NB1

Outdoor Temperature	LWT 7°C	LWT 10°C	LWT 13°C	LWT 15°C	LWT 18°C	LWT 20°C	LWT 22°C
	TC	TC	TC	TC	TC	TC	TC
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), 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.

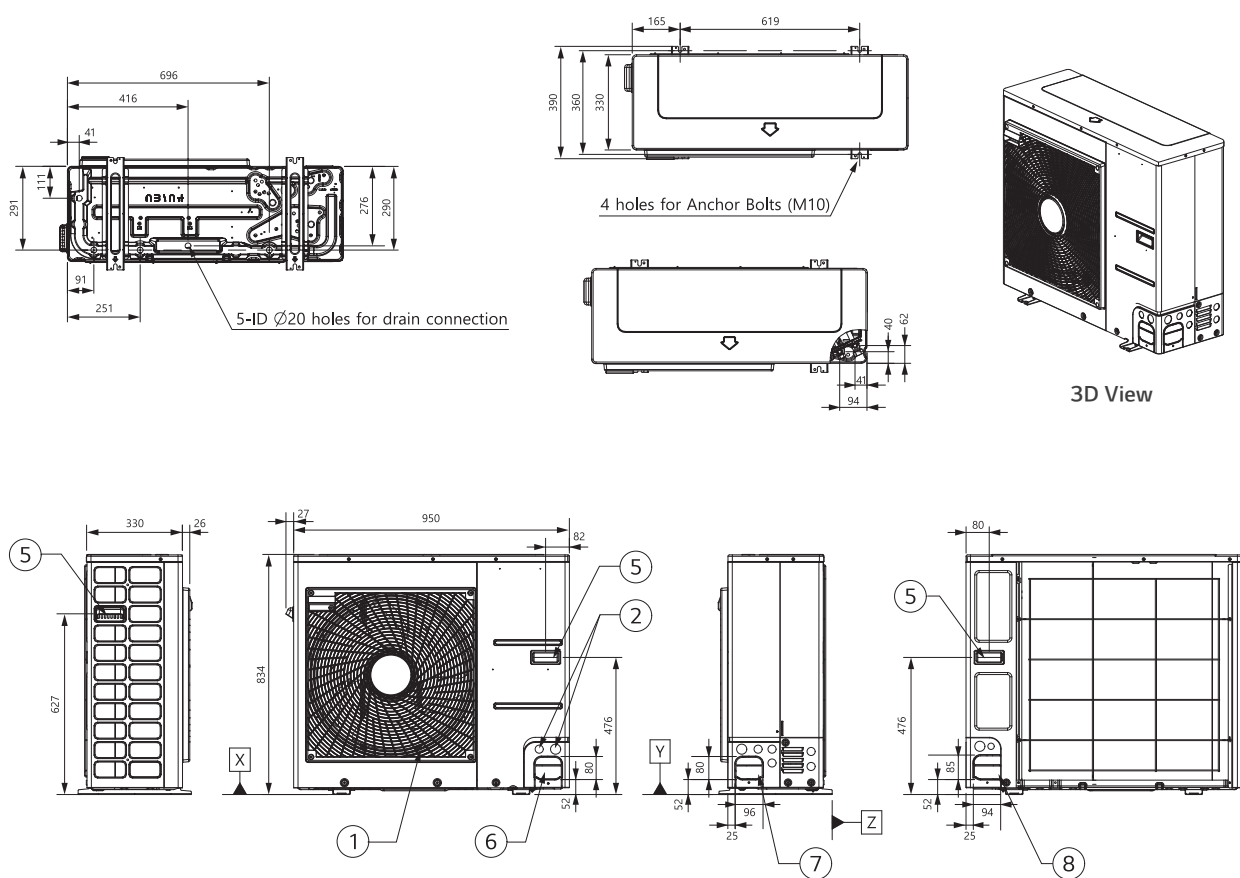
PRODUCT SPECIFICATION

Drawings

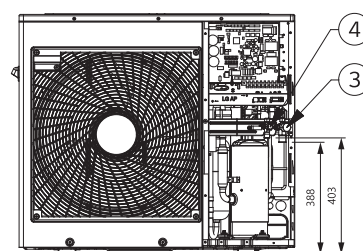
Category	Unit	Model Name		
		Capacity (kW)		
1 Phase Model 220 ~ 240V, 1Ø, 50Hz	Outdoor Unit	HU051MR U44	HU071MR U44	HU091MR U44
	Indoor Unit	HN0916T NB1		

HU051MR U44 / HU071MR U44 / HU091MR U44

[Unit : mm]



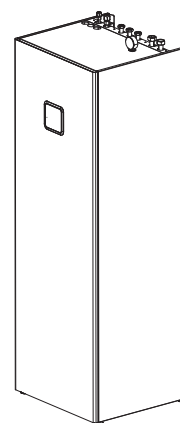
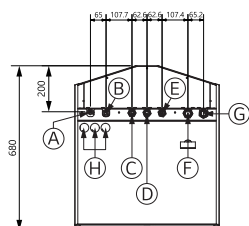
No.	Part Name	Description
1	Air Outlet	-
2	Power and Communication Cable Hole	-
3	Gas Pipe Connection	Flare joint
4	Liquid Pipe Connection	Flare joint
5	Handle	-
6	Pipe Routing Hole (front)	-
7	Pipe Routing Hole (side)	-
8	Pipe Routing Hole (back)	-



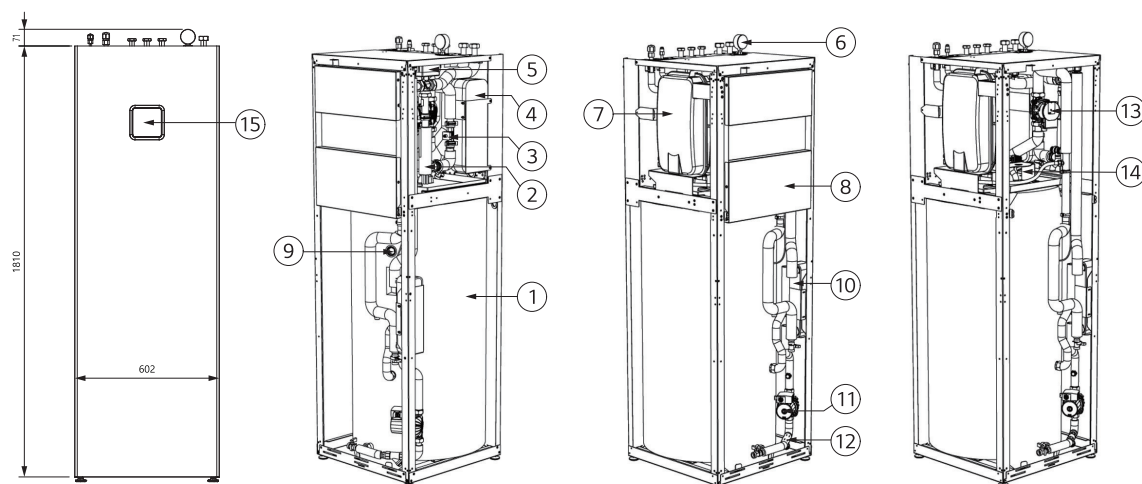
Piping Connection Port

HN0916T NB1

[Unit : mm]



3D View



No.	Part Name	Description	No.	Description
1	DHW Tank	Domestic Hot Water Tank (200L)	A	G5/8" Refrigerant Gas Pipe
2	Heater	Electric Back up Heater (6kW)	B	G3/8" Refrigerant liquid Pipe
3	Flow Sensor	SIKA VVXC9SNBUC00252P	C	G3/4" Domestic hot water outlet
4	Heat Exchanger	Plate-heat-exchanger (refrigerant /water)	D	G3/4" Domestic cold water inlet
5	3 Way Valve	3 Way valve (DHW/heating)	E	G3/4" DHW Re-circulation
6	Pressure Gauge	Pressure gauge	F	G1" Heating circuit inlet
7	Expansion Vessel (12L)	Expansion vessel for Heating	G	G1" Heating circuit outlet
8	Control Box	PCB and terminal blocks	H	Cable lead throughs
9	Magnesium Anode	To prevent corrosion		
10	Heat Exchanger	Plate-heat-exchanger (water /DHW)		
11	Water Pump	DHW Tank Charging Pump		
12	DHW Strainer	DHW Strainer		
13	Water Pump	Main circulation pump		
14	Bracket	For DHW Expansion vessel (accessory)		
15	Remote Controller	Built-in remote controller		

A modern living room with a high, vaulted ceiling featuring exposed wooden beams and recessed lighting. Large floor-to-ceiling windows offer a panoramic view of a lake and distant mountains. The room is furnished with a grey sectional sofa, a round black coffee table, and a wooden armchair. Decorative elements include a bowl of artichokes on a wooden stump and a large green feather sculpture. The floor is made of light-colored wood.

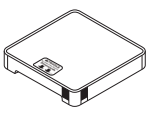
THERMA VTM
ACCESSORIES



ACCESSORIES

Accessories Provided by LG

Category	Model Name	Model Number	Figure	Applicable Product	Relevant Function	Purpose	Feature
Sensors	Room Temperature Sensor	PQRSTA0		All except for R410A IWT	Room Temperature Based Control	To detect room air temperature for room temperature based control	• Max. wire length : 15m
	2 nd Circuit Thermistor	PRSTAT5K10		All except for R410A IWT and High temp.	2 nd Circuit (mixing circuit)	To detect 2 nd circuit temperature when using 2 nd circuit function	• 5kΩ thermistor, 10m
	Domestic Hot Water Sensor	PHRSTA0		All except for IWT and High temp. models	Domestic Hot Water Heating	To detect DHW tank temperature	• Included in PHLTA kit
Valves	3 Way Valve	OSHA-3V		All except for IWT models	Domestic Hot Water Heating	To divert water flow between space heating and DHW heating	• Size : DN 20 G 1" connection, male threaded
	Thermostatic Mixing Valve	OSHA-MV		Regardless of model	Domestic Hot Water Supply	To blend hot water with cold water for ensuring constant, safe shower and bath outlet temp.	• Size : 3/4" DN20 male threaded
		OSHA-MV1					• Size : 1" DN25 male threaded
DHW Tanks	Domestic Hot Water Tank (single coil)	OSHW-200F		All except for IWT models	Domestic Hot Water Heating	To generate and store domestic hot water	• Storage volume : 200L, 300L, 500L
		OSHW-300F					• Type : Internal double coil
		OSHW-500F					• Material : Stainless steel
	Domestic Hot Water Tank (double coil)	OSHW-300FD		All except for IWT and High temp. models			• Capacity of booster heater : 2.4kW
Installation Kits	Domestic Hot Water Tank Kit	PHLTA (1Ø, split)		All except for IWT and High temp. models	Domestic Hot Water Heating	To operate with DHW tank	• Parts included : DHW tank sensor (thermistor), Circuit breaker, Relay
		PHLTC (3Ø, split)					
		PHLTB (monobloc)					• Parts included : DHW tank sensor (thermistor), Circuit breaker, Relay, Multi harness
	Solar Thermal Kit	PHLLA		All except for IWT, Hydrosplit and High temp. models	Solar Thermal Heat Utilization	To operate with solar thermal system	• Length of thermistor : 12m • Size of tube connector (W x H x D) : 110 x 55 x 22

Category	Model Name	Model Number	Figure	Applicable Product	Relevant Function	Purpose	Feature
Installation Kits	Electric Back Up Heater	HA031M E1		R32 Monobloc and R32 Silent Monobloc (HA063M E1 is not applicable for R32 Silent Monobloc)	Capacity Back Up & Emergency Operation	To supplement insufficient capacity	• Heater capacity : 3kW • Number of heating coil : 1EA (3.0kW) • Size (W x H x D) : 210 x 607 x 217 • Power : 220 ~ 240V, 1Ø
		HA061M E1					• Heater capacity : 6kW • Number of heating coil : 2EA (3.0 + 3.0kW) • Size (W x H x D) : 210 x 607 x 217 • Power : 220 ~ 240V, 1Ø
		HA063M E1					• Heater capacity : 6kW • Number of heating coil : 3EA (2.0 + 2.0 + 2.0kW) • Size (W x H x D) : 210 x 607 x 217 • Power : 380 ~ 415V, 3Ø
Vessel	Buffer Tank for Space Heating	OSHB-40KT		R32 IWT	-	To provide the buffer volume of water to the heating circuit	• Volume : 40L • Size (W x H x D) : 518 x 560 x 175
	Expansion Vessel for DHW	OSHE-12KT		R32 IWT	-	To absorb the volume changes by temperature of water for the DHW circuit	• Volume : 8L • Connection : 3/4" • Max. pressure : 10 bar • Size (W x H x D) : 416 x 238 x 502
ETC	Extension Wire for Wire Remote Controller	PZCWRC1		All except for R410A IWT	-	To extend wire between wired remote controller and indoor unit	• Length : 10m
	Extension Cable for Wi-Fi Modem	PWYREW000		All except for R410A IWT	Wi-Fi Control via LG ThinQ	To extend wire between Wi-Fi modem and indoor unit	• Length : 10m
	2 Remote Control Wire	PZCWRC2		All except for R410A IWT model	2 Remote Control	To connect two remote controller on the one indoor unit	• Length : 0.25m
	Drain Pan	PHDPB		R32 Split, R410A Split	Cooling Operation	To collect condensed water in indoor unit when cooling operation	-
		PHDPC		R32 Hydrosplit			
	Cover Plate	PDC-HK10		R32 Hydrosplit, R32 Split, R32 IWT, R410A Split	-	To fill the blank space of the indoor unit front panel when the remote controller is relocated indoors.	-

ACCESSORIES

Accessories Provided by LG

Category	Model Name	Model Number	Figure	Applicable Product	Relevant Function	Purpose	Feature
Remote Controller	Wired Remote Controller	PREMTW101		All except for R410A IWT model	2 Remote Control	To control AWHP using two remote controller (additional remote controller)	- New modern design 4.3 inch color LCD display - Information displayed with simple graphic, icon & text - Built-in temperature sensor - Size (W x H x D) : 120 x 120 x 16 - Extension cable (PZCWRC1, 10m) and 2 remote cable (PZCWRC2, 0.25m) are included
Central Controller	AC Ez Touch	PACEZA000		All except for R410A IWT model	Centralized Control	To control AWHP using LG central controller	5 inch color display - User-friendly control with iconographic interface (touch screen) - Max. 32 unit control - Total 200 schedule events (weekly / monthly / yearly / exception day) - Operation history - Remote controller lock (all, temp, mode) - PC access supported (IPv6 supported) - DI 1EA (emergency stop only) - Size (W x H x D) : 137 x 121 x 25
	AC Smart 5	PACS4B000 (Smart 4) PACS5A000 (Smart 5)					10.2 inch color display - User-friendly control with iconographic interface (touch screen) (Smart 4)_Max. IDU 32, (Smart 5)_Max. IDU 64 - Total 100 schedule events (weekly / monthly / yearly / exception day) - History / operation trend - Interlock with 3rd party equipment (ACS IO, ACU IO module is needed) - Error alarm by e-mail - Remote controller lock (all, temp, mode) - Map view (visual navigation) - Web access supported with HTML5 (PC, smartphone, tablet) - DI 2EA, DO 2EA - BACnet IP/modbus TCP protocol support - Size (W x H x D) : 253.2 x 167.7 x 28.9
	ACP 5	PACP4B000 (ACP4) PACP5A000 (ACP5)					- Web access controller - Max. 128 unit control - Total 100 schedule events (weekly / monthly / yearly / exception day) - History / operation trend - Interlock with 3rd party equipment (ACS IO, ACU IO module is needed) - Error alarm by e-mail - Remote controller lock (all, temp, mode) - Map view (visual navigation) - DI 10EA, DO 4EA - BACnet IP/modbus TCP protocol support - Size (W x H x D) : 270 x 155 x 65
Gateway	ACP Lonworks	PLNWKB000		All except for R410A IWT model	Centralized Control	To link with AWHP and other existing building control system	- Web access controller - Max. 64 unit control - ACP function included - Lonworks protocol support - Size (W x H x D) : 270 x 155 x 65

Category	Model Name	Model Number	Figure	Applicable Product	Relevant Function	Purpose	Feature
Gateway	Modbus RTU Gateway	PMBUSB00A		All except for R410A IWT model	Centralized Control	To communicate and control through the central controller (providing modbus RTU connection between AWHP and BMS)	• Modbus RTU slave (RS485) / 9,600 bps • Size (W x H x D) : 53.6 x 89.7 x 60.7 • Max. 16 IDUs with single module / Max. 64 IDUs with 4 modules • Power : DC 12V
	PI485 Gateway	PMNFP14A1		All except for R410A IWT model		To communicate and control through the central controller (converting LG protocol to RS485 protocol)	• 1 for each outdoor unit • Power : Supplied by outdoor unit
	PI485 Gateway	PP485B00K		R410A IWT		To communicate between outdoor unit and IWT type indoor unit	• 1 for each outdoor unit • Power : Supplied by outdoor unit
Dry Contact	Simple Dry Contact	PDRYCB000		All except for R410A IWT model	-	To connect between the AWHP and external devices to control various functions	• 1 Set per 1 unit • 1 Input contact for turning on/off • Input power : 220 ~ 240V • 2 output contacts - Operation status - Error status
	Dry Contact for Thermostat	PDRYCB320					• 1 Set per 1 unit • Non voltage or 12 ~ 24V • 8 digital input contacts for thermostat - On/off, operation mode, DHW heating - Emergency mode, silent mode • 2 Output contacts - Operation status - Error status
ETC	LG Wi-Fi Modem	PWFMD200		All except for R410A IWT model	Wi-Fi Control via LG ThinQ	To control AWHP via smartphone	• Basic control function - On/off, operation mode, set temp - DHW heating and set temp • Weekly on/off schedule • Error status check • Frequency : 2.4GHz • IEEE 802.11b/g/n supported
	Meter Interface	PENKTH000		All except for R410A IWT model	Energy Monitoring	To measure production / consumption power	• Energy meter interface to monitor Electricity and Heat energy - Max. 3 watt - Hour meter - Max. 1 heat meter - Pulse width : 40ms ~ 100ms • Modbus RTU comm. with THERMA V - 2 wire RS485 / 9600bps • Power : DC 12V • Size (W x H x D) : 54 x 90 x 61
	2 Zone Valve Controller	PZNVVB200		All except for R410A IWT model	Zone Valve Control	To control individual zone valves with room temperature sensor or room thermostat	• Individual temperature setting possible. (to be set through wired remote control in room temperature input mode) • Room temperature detection (AI : 2 ports) • 3rd Party thermostat interlock input. (DI : 2 port) • Can read one DI or AI for each zone. • Maximum number of connections : Max. 4EA (expandable up to 8-zone) • Size (W x H x D) : 53.6 x 89.7 x 60.7 • Power : DC12V for module, AC24V for valve

Note

1. PI485 Gateway (PMNFP14A1) should be installed on outdoor unit to use central controller.

ACCESSORIES

LG Wi-Fi Modem

PWFMDD200 ENCXLEU

Access LG THERMA V anytime and from anywhere with Wi-Fi equipped device. LG's exclusive Home Appliances control app (LG ThinQ) is available.

Simple operation for various functions.

- On/off
- Operation mode selection
- Current temperature
- Set temperature
- On/off reservation scheduling
- Energy monitoring
- ESS monitoring
- Silent mode reservation
- Holiday mode
- Quick DHW heating



Model Name	PWFMDD200
Size (mm)	46 x 68 x 14
Interfaceable Products	All THERMA V Line-ups except for R410A IWT
Connection Type	Indoor Unit 1 : 1
Communication Frequency	2.4GHz
Wireless Standards	IEEE 802.11b/g/n
Mobile Application	LG ThinQ (Android v4.1 (Jellybean) or higher, iPhone iOS 9.0 or higher)
Optional Extension Cable	PWYREW000 (10m extension)

Note

1. Functionality may be different according to each Indoor model.
2. User interface of application shall be revised for its design and contents improvement.
3. Application is optimized for smartphone use, so it may not be well functioning with tablet devices.
 - For the compatibility with indoor unit, please contact regional office.

Domestic Hot Water Tank

OSHW-200F AEU

OSHW-300F AEU

OSHW-500F AEU

OSHW-300FD AEU



Double Coil

Single Coil

Domestic Hot Water Tank		Unit	OSHW-200F	OSHW-300F	OSHW-500F	OSHW-300FD
General Characteristics	Water Volume	ℓ	200	300	500	300
	Diameter	mm	640	640	640	640
	Height	mm	1,350	1,850	1,900	1,850
	Empty Weight	Kg	61	100	146	106
	Tank Materials	-	STS : F18	STS : F18	STS : F18	STS : F18
	Color	-	Grey	Grey	Grey	Grey
Specification of Electric Back up	Additional Electric Heater	W	2,400	2,400	2,400	2,400
	Power Supply	V, Ø, Hz	230, 1, 50 (60)	230, 1, 50 (60)	230, 1, 50 (60)	230, 1, 50 (60)
	Adjustable Thermostat	°C	0 ~ 90	0 ~ 90	0 ~ 90	0 ~ 90
Specification of Heat Exchanger	Exchanger Type	-	Single	Single	Single	Double
	Material Exchanger	-	STS : F18	STS : F18	STS : F18	STS : F18
	Maximum Water Temp.	°C	90	90	90	90
	Coil Surface	m ²	2.3	3.1	4.8	3.1 + 0.97
Water Connections	Heat Pump Inlet	inch	1 BSP female	1 BSP female	1 ¼ BSP female	¾ BSP female (upper coil)
	Heat Pump Outlet	inch	1 BSP female	1 BSP female	1 ¼ BSP female	¾ BSP female (upper coil)
	Solar Inlet	inch	-	-	-	1 BSP Female (lower coil)
	Solar Outlet	inch	-	-	-	1 BSP Female (lower coil)
	City Water Inlet	inch	¾ BSP male	¾ BSP male	1 BSP male	¾ BSP male
	Hot Water Outlet	inch	¾ BSP female	1 BSP female	1 BSP female	1 BSP female
Energy Efficiency Class (A+ to F scale)		-	B	B	B	B
Standing Heat Loss		W	61	70	83	70

Mandatory Optional Accessories	
Domestic Hot Water Tank Installation Kit	PHLTA (1Ø, split), PHLTB (monobloc), PHLTC (3Ø, split)
Optional Accessories	
Thermostatic Mixing Valve (3/4" DN20)	OSHA-MV
Thermostatic Mixing Valve (1" DN25)	OSHA-MV1
3 Way Valve	OSHA-3V

ACCESSORIES

Combined Test with DHW Tank

LG has conducted a combination test of THERMA V with DHW tanks in accordance with EN16147 and obtained an ErP label for packages in order to cope with European nZEB regulations.

- R32 Monobloc (5, 7, 9kW) + OSHW-200F
- R32 Monobloc (12, 14, 16kW) + OSHW-200F
- R32 Monobloc (5, 7, 9kW) + OSHW-300F
- R32 Split Hydro Box (5, 7, 9kW) + OSHW-200F



Model	AWHP	R32 Split (5, 7, 9kW)	R32 Monobloc (5, 7, 9kW)	R32 Monobloc (12, 14, 16kW)	R32 Monobloc (5, 7, 9kW)
	IDU	HN0916M NK4	HM051M U43 HM071M U43 HM091M U43	HM121M U33 HM141M U33 HM161M U33	HM051M U43 HM071M U43 HM091M U43
	ODU	HU051MR U44 HU071MR U44 HU091MR U44			
	Tank	OSHW-200F AEU			
Declared Load Profile		L	L	L	XL
Average Climate	Grade	A+	A+	A	A+
	Efficiency	118%	122%	109%	134%
	Annual Energy Consumption	865kWh	839kWh	940kWh	1,254kWh
Energy Label					