PRODUCT SPECIFICATION (INDOOR UNIT)

INDOOR UNIT (For R32 Hydrosplit IWT, HN1616Y NB1)

Technical Specification			Indoor Unit	HN1616Y NB1
Operation Range (Leaving Water Temp.)	Heating	Min. ~ Max.	℃	15 ~ 65
	Cooling	Min. ~ Max.	℃	5 ~ 27 (16 ~ 27) [1]
	Domestic Hot Water	Min. ~ Max.	℃	15 ~ 80 [2]
Domestic Hot Water Tank	Volume		ℓ	200
	Internal Thermal Protect Limit		℃	85
Main Water Pump	Model		-	Grundfos UPML 25-105 130 PWM A
DHW Water Pump	Model		-	WILO ZRS 15/6-3 XU
Flow Sensor	Measuring Range	Min. ~ Max.	ℓ/min	5 ~ 80
Water Pressure Sensor	Measuring Range	Min. ~ Max.	bar (G)	0 ~ 20
Expansion Vessel (Heating Circuit)	Volume		ℓ	12
Safety Valve	Heating Circuit	Upper Limit	bar	3
	DHW Circuit	Upper Limit	bar	10
Piping Connections	Water Circuit	Inlet	inch	Female G 1" [4]
		Outlet	inch	Female G 1" [4]
		Inlet from Outdoor Unit	inch	Female G 1" [4]
		Outlet to Outdoor Unit	inch	Female G 1" [4]
	DHW Tank Water Circuit	Cold Inlet	inch	Female G 3/4" [4]
		Hot Outlet	inch	Female G 3/4" [3]
		Recirculation	inch	Female G 3/4" [3]
Sound Power Level	Heating	Rated	dB(A)	43
Dimensions	Unit	W × H × D	mm	601 × 1,812 × 685
Weight (without water)	Unit		kg	130
Exterior	Color / RAL Code		-	White / RAL 9002
Electrical Specification			**Indoor Unit**	**HN1616Y NB1**
Wiring Connections	Power and Communication Cable (Included Earth, H07RN-F)		mm² x cores	0.75 x 4C
Electric Heater (Case 1 / Case 2 / Case 3) [3]	Type		-	Sheath
	No. of Heating Coil		EA	1 / 2 / 3
	Capacity combination		kW	2.0 / 2.0 + 2.0 / 2.0 + 2.0 + 2.0
	Heating Step		Step	1
	Power Supply		V, Ø, Hz	220-240, 1, 50 / 220-240, 1, 50 / 380-415, 3, 50
	Wiring Connections Power Supply Cable (Included Earth, H07RN-F)		mm² x cores	4.0 x 3C / 4.0 x 3C / 2.5 x 5C
	Rated Current		A	8.7 / 17.4 / 8.7

1) When fan coil unit not used.
2) DHW 58 ~ 80℃ operating is available only when the booster heater is operating.
3) The capacity of electric heater can be adjusted by wiring.
4) According to ISO 228-1 (parallel pipe threads)

INDOOR UNIT (For R32 Hydrosplit Hydro box, HN1600MC NK1)

Technical Specification			Indoor Unit	HN1600MC NK1
Operation Range (Leaving Water Temp.)	Heating	Min. ~ Max.	℃	15 ~ 65
	Cooling	Min. ~ Max.	℃	5 ~ 27 (16 ~ 27) [1]
	Domestic Hot Water	Min. ~ Max.	℃	15 ~ 80 [2]
Water Pump	Model		-	GRUNDFOS UPML 20-105 CHBL
Flow Sensor	Measuring Range	Min. ~ Max.	ℓ/min	5 ~ 80
Water Pressure Sensor	Measuring Range	Min. ~ Max.	bar (G)	0 ~ 20
Expansion Vessel	Volume		ℓ	8
Safety Valve	Pressure Limit	Upper Limit	bar	3
Piping Connections	Water Circuit	Inlet to PHEX	inch	Male PT 1" [3]
		Inlet to Heat Load	inch	Male PT 1" [3]
		Outlet from PHEX	inch	Male PT 1" [3]
		Outlet from Heat Load	inch	Male PT 1" [3]
Sound Power Level	Heating	Rated	dB(A)	44
Dimensions	Unit	W × H × D	mm	490 × 850 × 315
Weight	Unit		kg	30.5
Exterior	Color / RAL Code		-	Nobel White / RAL 9016
Electrical Specification			**Indoor Unit**	**HN1600MC NK1**
Wiring Connections	Power and Communication Cable (Included Earth, H07RN-F)		mm² x cores	0.75 x 4C

1) When fan coil unit not used.
2) DHW 58 ~ 80℃ operating is available only when the booster heater is operating.
3) According to ISO 7-1 (tapered pipe threads)

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PRODUCT SPECIFICATION (OUTDOOR UNIT)

OUTDOOR UNIT (For R32 Hydrosplit series)

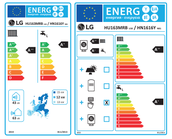
Technical Specification				Indoor Unit	HN1616Y NB1 HN1600MC NK1		
				Outdoor Unit	HU121MRB U30 (1Ø) HU123MRB U30 (3Ø)	HU141MRB U30 (1Ø) HU143MRB U30 (3Ø)	HU161MRB U30 (1Ø) HU163MRB U30 (3Ø)
Nominal Capacity	Heating	7℃	35℃	kW	12.00	14.00	16.00
		7℃	55℃	kW	11.00	11.50	12.00
		2℃	35℃	kW	11.00	12.00	13.80
	Cooling	35℃	18℃	kW	12.00	14.00	16.00
		35℃	7℃	kW	12.00	14.00	16.00
Nominal Power Input	Heating	7℃	35℃	kW	2.38	2.86	3.33
		7℃	55℃	kW	3.79	4.04	4.29
		2℃	35℃	kW	3.01	3.31	3.83
	Cooling	35℃	18℃	kW	2.53	3.26	4.00
		35℃	7℃	kW	4.44	5.38	6.40
COP	Heating	7℃	35℃	W/W	5.04	4.89	4.80
		7℃	55℃	W/W	2.90	2.85	2.80
		2℃	35℃	W/W	3.65	3.63	3.60
EER	Cooling	35℃	18℃	W/W	4.75	4.30	4.00
		35℃	7℃	W/W	2.70	2.60	2.50
Operation Range (Outdoor Temp.)	Heating	Min. ~ Max.		℃ DB	-25 ~ 35		
	Cooling	Min. ~ Max.		℃ DB	5 ~ 48		
Compressor	Type			-	Hermetic Sealed Scroll		
Refrigerant	Type			-	R32		
	GWP (Global Warming Potential)			-	675		
	Precharged Amount			g	2,100		
	t-CO2 eq			-	1.418		
Piping Connections	Water Circuit	Inlet		inch	Male PT 1" [1]		
		Outlet		inch	Male PT 1" [1]		
Rated Water Flow Rate (at LWT 35℃)				ℓ/min	34.5	40.3	46.0
Sound Power Level	Heating	Rated		dB(A)	61	62	63
Sound Pressure Level (at 1m)	Heating	Rated		dB(A)	53	54	55
Dimensions	Unit	W x H x D		mm	950 x 1,380 x 330		
Weight	Unit			kg	91.7		
Exterior	Color / RAL Code				Warm Gray / RAL 7044		
Electrical Specification				**Outdoor Unit**	**HU121MRB U30 (1Ø) HU123MRB U30 (3Ø)**	**HU141MRB U30 (1Ø) HU143MRB U30 (3Ø)**	**HU161MRB U30 (1Ø) HU163MRB U30 (3Ø)**
Power Supply	Voltage, Phase, Frequency			V, Ø, Hz	220-240, 1, 50 / 380-415, 3, 50		
	Rated Running Current	Heating		A	1Ø : 10.6 / 3Ø : 3.5	1Ø : 12.7 / 3Ø : 4.2	1Ø : 14.8 / 3Ø : 4.9
		Cooling		A	1Ø : 11.2 / 3Ø : 3.7	1Ø : 14.4 / 3Ø : 4.8	1Ø : 17.7 / 3Ø : 5.9
	Recommended Circuit Breaker			A	1Ø : 40.0 / 3Ø : 16.0		
Wiring Connections	Power Supply Cable (included earth, H07RN-F)			mm² x cores	1Ø : 6.0 x 3C / 3Ø : 2.5 x 5C		

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 according with ISO 9614 standard. Therefore, these values can be increased owing to ambient conditions during operation.
4. Performances are accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions acc. ErP regulation.
5. This product contains fluorinated greenhouse gases.
6. According to ISO 7-1 (tapered pipe threads)

SEASONAL ENERGY EFFICIENCY

(For R32 Hydrosplit IWT, HN1616Y NB1)

Description				Indoor Unit	HN1616Y NB1		
				Outdoor Unit	HU121MRB U30 (1Ø) HU123MRB U30 (3Ø)	HU141MRB U30 (1Ø) HU143MRB U30 (3Ø)	HU161MRB U30 (1Ø) HU163MRB U30 (3Ø)
Space Heating (According to EN14825)	Average Climate		SCOP	-	4.60	4.57	4.55
	Water Outlet 35℃		Seasonal Space Heating Efficiency (ηs)	%	181	180	179
			Seasonal Space Heating Eff. Class (A+++ to D Scale)	-	A+++	A+++	A+++
	Average Climate		SCOP	-	3.50	3.47	3.45
	Water Outlet 55℃		Seasonal Space Heating Efficiency (ηs)	%	137	136	135
			Seasonal Space Heating Eff. Class (A+++ to D Scale)	-	A++	A++	A++
Domestic Hot Water Efficiency (According to EN 16147)			Declared Load Profile	-	L	L	L
			Water Heating Efficiency (ηwh)	%	120	120	120
			Water Heating Eff. Class (A+++ to G Scale)	-	A+	A+	A+

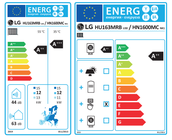


* 16kW 3Ø model.
* A+++ to D scale.

* EHPA label under development.

(For R32 Hydrosplit Hydro box, HN1600MC NK1)

Description				Indoor Unit	HN1600MC NK1		
				Outdoor Unit	HU121MRB U30 (1Ø) HU123MRB U30 (3Ø)	HU141MRB U30 (1Ø) HU143MRB U30 (3Ø)	HU161MRB U30 (1Ø) HU163MRB U30 (3Ø)
Space Heating (According to EN 14825)	Average Climate		SCOP	-	4.60	4.57	4.55
	Water Outlet 35℃		Seasonal Space Heating Efficiency (ηs)	%	181	180	179
			Seasonal Space Heating Eff. Class (A+++ to D Scale)	-	A+++	A+++	A+++
	Average Climate		SCOP	-	3.50	3.47	3.45
	Water Outlet 55℃		Seasonal Space Heating Efficiency (ηs)	%	137	136	135
			Seasonal Space Heating Eff. Class (A+++ to D Scale)	-	A++	A++	A++



* 16kW 3Ø model.
* A+++ to D scale.

* EHPA & MCS label under development.

PERFORMANCE TABLE FOR HEATING OPERATION

Maximum Heating Capacity (Including Defrost Effect)

HU121MRB U30 / HU123MRB U30 + HN1600MC NK1 / HN1616Y NB1

Outdoor Temperature	LWT 30℃ TC	LWT 35℃ TC	LWT 40℃ TC	LWT 45℃ TC	LWT 50℃ TC	LWT 55℃ TC	LWT 60℃ TC	LWT 65℃ TC
-25℃ DB	9.66	8.85	8.42	8.29	-	-	-	-
-20℃ DB	10.13	10.00	9.88	9.75	9.63	-	-	-
-15℃ DB	11.50	11.50	11.50	11.50	11.50	11.50	-	-
-7℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	-
-4℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
-2℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
2℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
7℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
10℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
15℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
18℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
20℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
35℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00

HU141MRB U30 / HU143MRB U30 + HN1600MC NK1 / HN1616Y NB1

Outdoor Temperature	LWT 30℃ TC	LWT 35℃ TC	LWT 40℃ TC	LWT 45℃ TC	LWT 50℃ TC	LWT 55℃ TC	LWT 60℃ TC	LWT 65℃ TC
-25℃ DB	10.04	9.21	8.76	8.62	-	-	-	-
-20℃ DB	11.82	11.25	10.95	10.67	10.59	-	-	-
-15℃ DB	12.52	12.90	13.26	12.88	12.81	12.63	-	-
-7℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	-
-4℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
-2℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
2℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
7℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
10℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
15℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
18℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
20℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
35℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00

HU161MRB U30 / HU163MRB U30 + HN1600MC NK1 / HN1616Y NB1

Outdoor Temperature	LWT 30℃ TC	LWT 35℃ TC	LWT 40℃ TC	LWT 45℃ TC	LWT 50℃ TC	LWT 55℃ TC	LWT 60℃ TC	LWT 65℃ TC
-25℃ DB	10.98	10.00	9.50	9.33	-	-	-	-
-20℃ DB	13.43	12.54	12.03	11.78	11.47	-	-	-
-15℃ DB	14.23	14.39	14.50	13.95	13.86	13.12	-	-
-7℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	-
-4℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
-2℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
2℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
7℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
10℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
15℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
18℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
20℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
35℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00

PERFORMANCE TABLE FOR COOLING OPERATION

Maximum Cooling Capacity

HU121MRB U30 / HU123MRB U30 + HN1600MC NK1 / HN1616Y NB1

Outdoor Temperature	LWT 7℃ TC	LWT 10℃ TC	LWT 13℃ TC	LWT 15℃ TC	LWT 18℃ TC	LWT 20℃ TC	LWT 22℃ TC
10℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
20℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
30℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
35℃ DB	12.00	12.00	12.00	12.00	12.00	12.00	12.00
40℃ DB	11.75	12.00	12.00	12.00	12.00	12.00	12.00
45℃ DB	11.50	12.00	12.00	12.00	12.00	12.00	12.00

HU141MRB U30 / HU143MRB U30 + HN1600MC NK1 / HN1616Y NB1

Outdoor Temperature	LWT 7℃ TC	LWT 10℃ TC	LWT 13℃ TC	LWT 15℃ TC	LWT 18℃ TC	LWT 20℃ TC	LWT 22℃ TC
10℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
20℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
30℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
35℃ DB	14.00	14.00	14.00	14.00	14.00	14.00	14.00
40℃ DB	13.75	14.00	14.00	14.00	14.00	14.00	14.00
45℃ DB	13.50	14.00	14.00	14.00	14.00	14.00	14.00

HU161MRB U30 / HU163MRB U30 + HN1600MC NK1 / HN1616Y NB1

Outdoor Temperature	LWT 7℃ TC	LWT 10℃ TC	LWT 13℃ TC	LWT 15℃ TC	LWT 18℃ TC	LWT 20℃ TC	LWT 22℃ TC
10℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
20℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
30℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
35℃ DB	16.00	16.00	16.00	16.00	16.00	16.00	16.00
40℃ DB	15.75	16.00	16.00	16.00	16.00	16.00	16.00
45℃ DB	15.50	16.00	16.00	16.00	16.00	16.00	16.00

Note
1. DB : Dry Bulb Temperature (℃), LWT : Leaving Water Temperature (℃), 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.

LG Life's Good

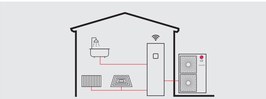
THERMA V™ R32

R32 Hydrosplit series (Hydro box & IWT type)

LG'S THERMA V HYDROSPLIT SERIES AT A GLANCE

The LG THERMA V Hydrosplit series separates the Indoor unit (IDU) and outdoor unit (ODU), connecting them via water pipes. The unit's heat exchanger is located within the ODU, reducing the risk of indoor refrigerant leakage. THERMA V R32 Hydrosplit IWT (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. Hydrosplit Hydro box is a solution providing space heating and cooling with high installation flexibility thanks to the characteristic of being a wall mounted type.

LG'S THERMA V R32 Hydrosplit IWT



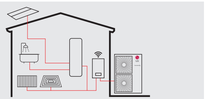
All-in-one integration
- Quick & easy installation
- DHW tank (200ℓ) & hydronic component integration
- Integrated max. 6kW electric heater
- Integrated expansion tank for heating (12ℓ)

Enhanced installation flexibility
- Water pipes connects IDU & ODU
- User-friendly installation settings interface
- Light weight & compact indoor unit: only 2 installers required
- Integrable 40ℓ buffer tank & 8ℓ expansion tank for DHW circuit (optional)

High efficiency & wide operational range
- R32 Refrigerant with low GWP
- SCOP up to 4.60 (average climate / low temp. application) : A+++
- DHW heating efficiency 120% (profile L): A+
- COP up to 5.04 (outdoor air 7℃ / leaving water 35℃)
- Leaving water temperature up to 65℃

Innovative design & technology
- Built-in water flow & pressure sensors to monitor real-time water circuit
- Advanced water pump control (optimal flow rate, fixed capacity, fixed flow rate, fixed △T)
- Enhanced 2nd circuit control logic

LG'S THERMA V R32 Hydrosplit Hydro box



Enhanced installation flexibility
- Water pipes connects IDU & ODU
- Hydronic components built into IDU : water pump, expansion tank, air vent, etc
- User-friendly installation settings interface
- Integrable electric backup heater (6kW, optional)

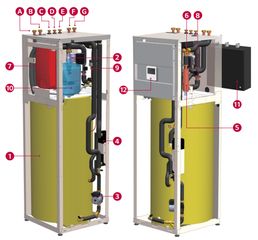
High efficiency & wide operational range
- R32 Refrigerant with low GWP
- SCOP up to 4.60 (average climate / low temp. application) : A+++
- COP up to 5.04 (outdoor air 7℃ / leaving water 35℃)
- Leaving water temperature up to 65℃
- Expanded operative range of solar thermal system

Innovative design & technology
- Built-in water flow & pressure sensors to monitor real-time water circuit
- Advanced water pump control (optimal flow rate, fixed capacity, fixed flow rate, fixed △T)
- Enhanced 2nd circuit control logic

Product	Phase	Capacity	Indoor Unit		Outdoor Unit	
R32 Hydrosplit IWT	1Ø	12	HN1616Y NB1		HU121MRB U30	
		14			HU141MRB U30	
		16			HU161MRB U30	
	3Ø	12			HU123MRB U30	
		14			HU143MRB U30	
		16			HU163MRB U30	
R32 Hydrosplit Hydro box	1Ø	12	HN1600MC NK1		HU121MRB U30	
		14			HU141MRB U30	
		16			HU161MRB U30	
	3Ø	12			HU123MRB U30	
		14			HU143MRB U30	
		16			HU163MRB U30	

KEY COMPONENTS

HN1616Y NB1



1. DHW storage tank (200ℓ)
2. Main water pump
3. Water pump for DHW charging
4. Plate heat exchanger for DHW (water / DHW)
5. Electric heater (Max. 6kW)
6. 3-way diverting valve
7. Expansion vessel for heating (12ℓ)
8. Flow sensor
9. Water pressure sensor
10. Expansion vessel for DHW (8ℓ, option)
11. Buffer tank (40ℓ, option)
12. RS3 Remote controller (attached on the front panel)

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")

ACCESSORY PARTS (OPTIONAL ACCESSORY)

Buffer tank for space heating

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

Expansion vessel for DHW

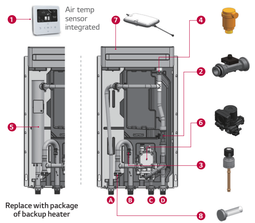
Expansion vessel for DHW		OSHE-12KT.AEU
Expansion Volume	ℓ	8
Connection	inch	3/4
Max. Pressure	bar	10
Pre-charge	bar	3
Dimensions (W x H x D)	mm	416 x 238 x 502
Weight (w/o water)	kg	2.5

(SEPARATELY PROVIDED)

Shut-off valve (1EA)

Shut-off valve with strainer (1EA)

HN1600MC NK1



1. RS3 Remote Controller (attached on the front panel)
2. Flow sensor (SIKA)
3. Water pressure sensor (SENSATA)
4. Air vent valve
5. Backup electric heater (6kW, accessory)
6. Water pump (GRUNDFOS)
7. Expansion vessel (8L)
8. Strainer

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")

ACCESSORY PARTS (OPTIONAL ACCESSORY)

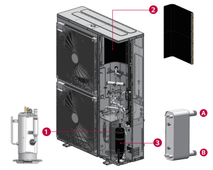
Back up heater

HA061C E1 (1Ø) HA063C E1 (3Ø)

a. Heater element
b. ELCB
c. Heater relay PCB
d. Magnet switch

Electrical Specification			HA061C E1	HA063C E1
Backup Heater	Type		Sheath	
	No. of Heating Coil	EA	2	3
	Capacity Combination	kW	3.0 + 3.0	2.0 + 2.0 + 2.0
	Heating Step	Step	1	1
	Power Supply	V, Ø, Hz	220-240, 1, 50	380-415, 3, 50
	Current (Rated)	A	24.0	8.7
	Circuit Breaker (ELCB)	A	40	20
Wiring Connection	Power Cable (Included Earth, H07RN-F)	mm² x cores	6.0 x 3C	2.5 x 5C

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



1. R1 compressor
2. Black Fin heat exchanger (ref/air)
3. Plate type heat exchanger (ref/water)

A. Outlet pipe to indoor unit (male PT 1")
B. Inlet pipe from indoor unit (male PT 1")

ACCESSORY PARTS (OPTIONAL ACCESSORY)

Strainer

Technical Specification		Details
Material	Body	Brass
	Mesh	Stainless steel (STS304)
Mesh	Mesh No.	30
	Max. Particle Size	0.6mm
Piping Connection		Female G 1" according to ISO 228-1

* The strainer should be installed on the water inlet pipe of outdoor unit.

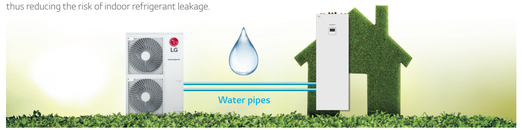
EASY INSTALLATION / EXCELLENT PERFORMANCE & EFFICIENCY

Hydrosplit | 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

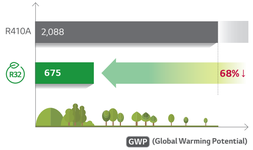
HYDROSPLIT CONCEPT

The THERMA V R32 Hydrosplit connects an IDU and ODU by water pipes due to the heat exchanger's location in the outdoor unit, thus reducing the risk of indoor refrigerant leakage.



ECO-CONSCIOUS WITH R32 REFRIGERANT

Ensure regulation compliance with eco-conscious R32 refrigerant, which boasts enhanced efficiency and a 68% reduced Global Warming Potential (GWP) than the alternative.



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.

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

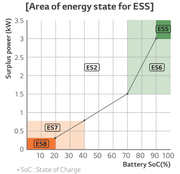
ENERGY STATES INTERLOCK

The R32 Hydrosplit series provide energy state interlock function that enables customers to use as much as possible of their own renewable energy. It can shift set points depending on input signal from Energy Storage System (ESS) or any other third-party device using Modbus or Digital 230V inputs.

Energy States	Description: Smart Grid (Contact) Operation Mode	Smart Grid (Contact) Power Supply Status	ESS (Modbus) Operation Mode	ESS (Modbus) Battery Charged Status	Operation
ES1	Operation Off				Forced off to avoid peak load
ES2	Normal		Normal		Normal operation
ES3*	On Recommend				Changed target temperature higher (Heating : +2℃ / DHW : +5℃)
ES4*	On Command				Changed target temperature higher (DHW : 80℃)
ES5**			On Command (Step2)		Changed target temperature higher (Heating : +5℃, Cooling : -5℃, DHW : +30℃)
ES6**			On Recommend (Step1)		Changed target temperature higher (Heating : +2℃, Cooling : -2℃, DHW : +10℃)
ES7**			Energy Saving		Changed target temperature lower (Heating : -2℃, Cooling : +2℃)
ES8**			Super Energy Saving		Changed target temperature lower (Heating : -5℃, Cooling : +5℃)

* Contact signal designated ES3 and ES4 can be changed to ES5 : ES8
** Offset values of heating, cooling and DHW are changeable.
*** Therma V can connect not only ESS but also 3rd party controller through Modbus, in that case, ES1 to ES8 are used.

[Area of energy state for ESS]



- SoC : State of Charge
- Surplus Power (SP) = PV Power – Load power
- Area of energy state for ESS can be adjusted by ESS.

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

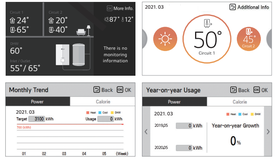
LG ThinQ allows users to monitor and control compatible LG products remotely, so they can set the temperature and regulate the use of their THERMA V anytime, anywhere. ThinQ technology also works with voice activation with Google Home.

INTUITIVE CONTROL

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

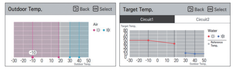
- Premium Design (4.3 inch color LCD)
- User Friendly Interface (simple graphic, icon & text)
- Convenient Functions (easy schedule setting & installer setting)
- Enhanced Energy Information with Simple Interface

* Meter interface (PENKTH000) is required to see the energy information.



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.

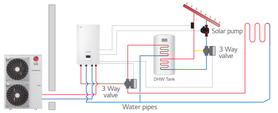


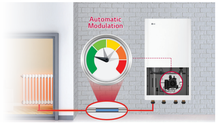
WATER CIRCUIT MONITORING

It is possible to monitor via remote controller not only temperature of water circuit but also flow rate and pressure.

COMBINATION WITH SOLAR THERMAL SYSTEM

By combining the solar system with Therma V, the efficiency of DHW heating operation can be maximized. (Hydro box type only)



ADVANCED PUMP CONTROL OPTIONS

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