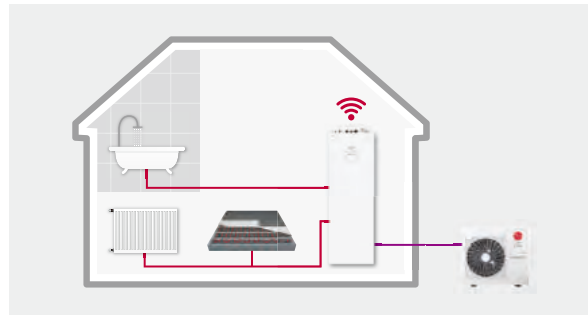
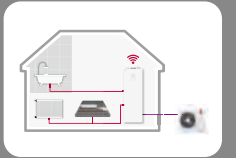




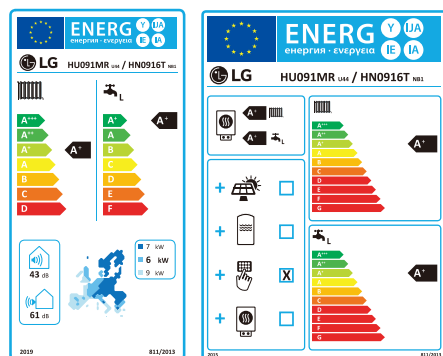
THERMAV™
FEATURES

THERMA V™ R32

R32 SPLIT IWT

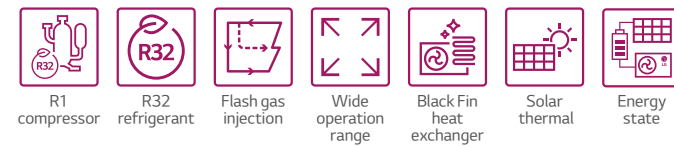


Energy Label

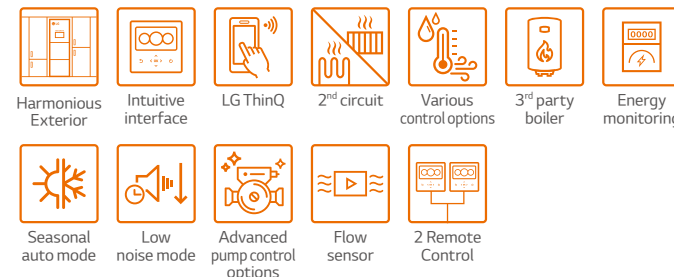


* 9kW 10 model.
* A+++ to D scale.

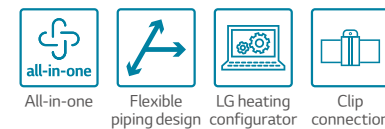
Excellent Performance & Efficiency



User Convenience



Easy Installation & Maintenance

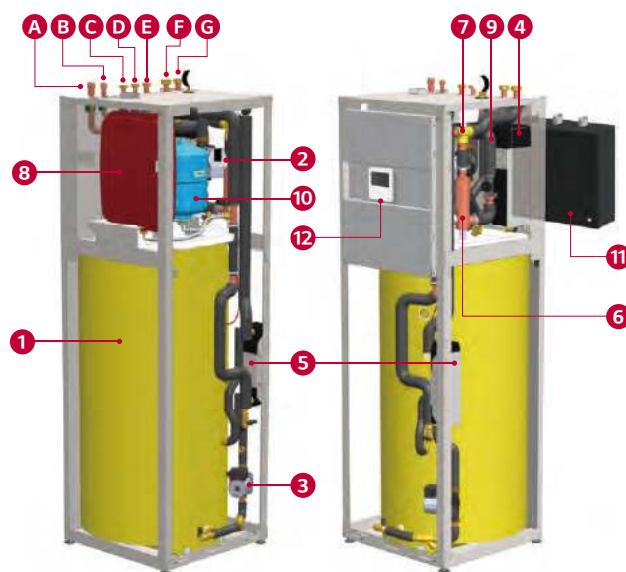


* Detailed description for each function is presented on page 28 ~ 35.

R32 Split IWT Introduction

THERMA V R32 Split IWT 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 Split 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.

Key Components



- 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

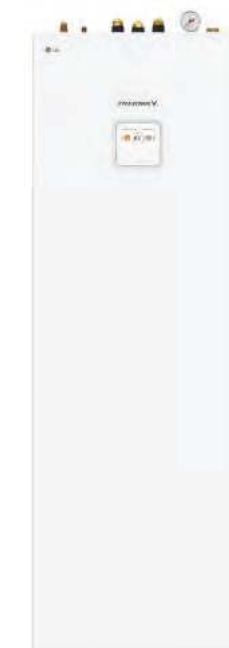
Sophisticated and Harmonious Exterior

The THERMA V R32 Split 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.



Save Space and Time

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



All in One

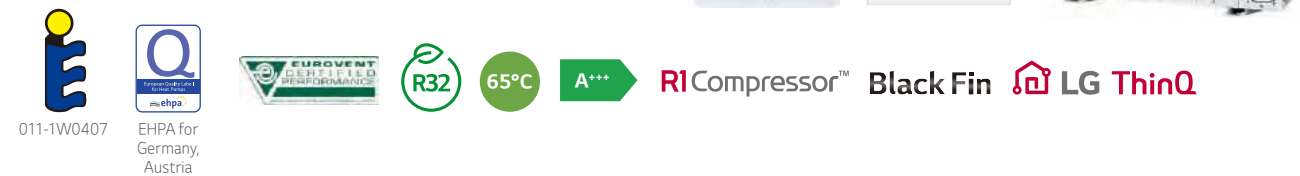
- Small footprint for product installation
- Quick & easy installation
- DHW tank (200ℓ) & hydronic component integration
- Integrated max. 6kW back up heater
- Integrated expansion tank for heating (12ℓ)
- Integrated buffer tank (40ℓ) & expansion tank for DHW circuit (8ℓ) (Optional)

Indoor Unit

Outdoor Unit

HU071MR U44

HU091MR U44



- Refrigerant pipes connects IDU & ODU
- SCOP up to 4.52 (Average climate / Low temp. application) : A+++
SCOP up to 3.03 (Average climate / Mid temp. application) : A+
SCOPDHW 2.89 (water heating efficiency 120%, profile L) : A+
- COP up to 4.50 (Outdoor air 7°C / Leaving water 35°C)
- DHW tank (200ℓ) & hydronic component integration
- Integrable buffer tank (40ℓ) & expansion tank for DHW circuit (8ℓ) (optional)
- 100% heating capacity at -7°C OAT (@ LWT 35°C)
- Wide operation range (ambient : -25 ~ 35°C / water side : 15 ~ 65°C)
- Built-in water flow to monitor real-time water circuit
- R32 refrigerant with reduced global warming potential (GWP)
- R1 compressor
- Black Fin heat exchanger
- LG ThinQ
- KEYMARK / EHPA (for Germany, Austria) / EUROVENT certification

Category	Unit	Model Name		
		Capacity (kW)		
		5.0	7.0	9.0
1 Phase Model 220 ~ 240V, 1Ø, 50Hz	Outdoor Unit	HU051MR U44	HU071MR U44	HU091MR U44
	Indoor Unit	HN0916T NB1		

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
		SCOP _{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
		SCOP _{DHW}	-	3.61	3.61	3.61
	Colder Climate	Declared Load Profile	-	L	L	L
		Water Heating Efficiency(η_{WH})	%	106	106	106
SCOP _{DHW}		-	2.44	2.44	2.44	

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			4.60	4.40

Product Specification (Outdoor Unit)

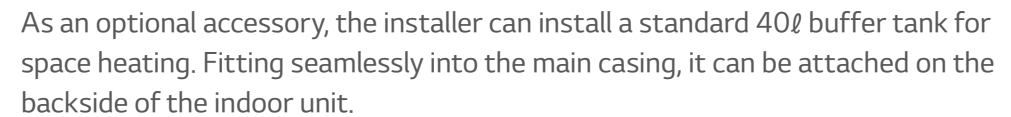
Note

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 according with ISO 9614 standard.
Sound pressure level is converted from sound power level based on tonality penalty of 0dB and installation in free-field.
Therefore, these values can be increased owing to ambient conditions during operation.
Rated sound power level is according to the EN12102-1 under conditions of the EN14825.
4. Performances are based on the following conditions (It is according to EN14511):
 - Interconnected Pipe Length is standard length and difference of Elevation
5. This product contains Fluorinated greenhouse gases. (Outdoor – Indoor Unit) is 0m.

Technical Specification			Unit	HN0916T NB1
Operation Range (leaving water)	Heating	Min. ~ Max.	°C DB	15 ~ 65
	Cooling			5 ~ 27 (16 ~ 27) ¹⁾
	DHW			15 ~ 80 ²⁾
Domestic Hot Water Tank	Volume		ℓ	200
	Internal Thermal Protect Limit		°C	85
Flow Sensor	Measuring Range	Min. ~ Max.	LPM	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
Electric Heater (Case 1 / Case 2 / Case 3) ³⁾	Type	-	-	Sheath
	Number 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
	Power Supply Cable (Included Earth, H07RN-F)		mm² x cores	4.0 x 3C / 4.0 x 3C / 2.5 x 5C
	Rated Running Current		A	8.7 / 17.4 / 8.7
Piping Connections	Refrigerant Circuit	Gas (outside diameter)	mm (inch)	Ø 15.88 (5/8)
		Liquid (outside diameter)	mm (inch)	Ø 9.52 (3/8)
	Water Circuit	Inlet	Inch	Female G 1" according to ISO 228-1 (parallel pipe threads)
		Outlet	Inch	Female G 1" according to ISO 228-1 (parallel pipe threads)
	DHW Tank Water Circuit	Cold Inlet	Inch	Female G 3/4" according to ISO 228-1 (parallel pipe threads)
		Hot Outlet	Inch	Female G 3/4" according to ISO 228-1 (parallel pipe threads)
		Recirculation	Inch	Female G 3/4" according to ISO 228-1 (parallel pipe threads)
Wiring Connections	Power and Communication Cable(included earth, H07RN-F)		mm² x cores	0.75 x 4C
Sound Power Level	Heating	Rated	dB(A)	43
Dimensions	Unit	W × H × D	mm	601 × 1,812 × 685
Weight	Unit		kg	140.0
Exterior	Color / RAL Code		-	White / RAL 9002

- 1) When fan coil unit not used.
- 2) DHW 58-80°C Operating is available only when the booster heater is operating.
- 3) The capacity of electric heater can be adjusted by wiring.

Buffer Tank for Space Heating



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.

Shut-off valve (1EA)



Shut-off valve with strainer (1EA)



Maximum Heating Capacity (Including Defrost Effect)

[illegible][illegible][illegible]

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.

Maximum Cooling Capacity

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

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

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.
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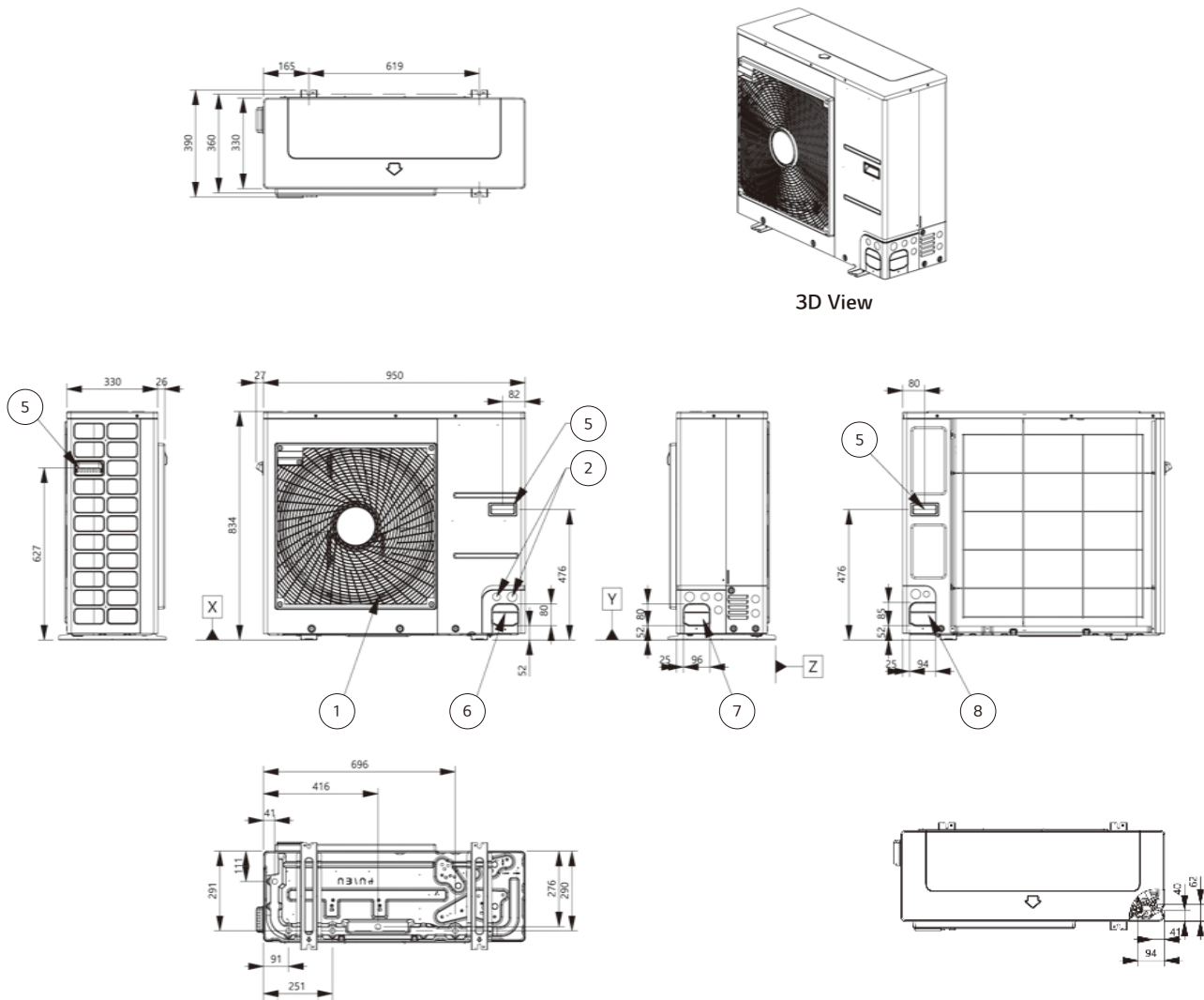
PRODUCT SPECIFICATION

Drawings

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		

HU051MR U44 / HU071MR U44 / HU091MR U44

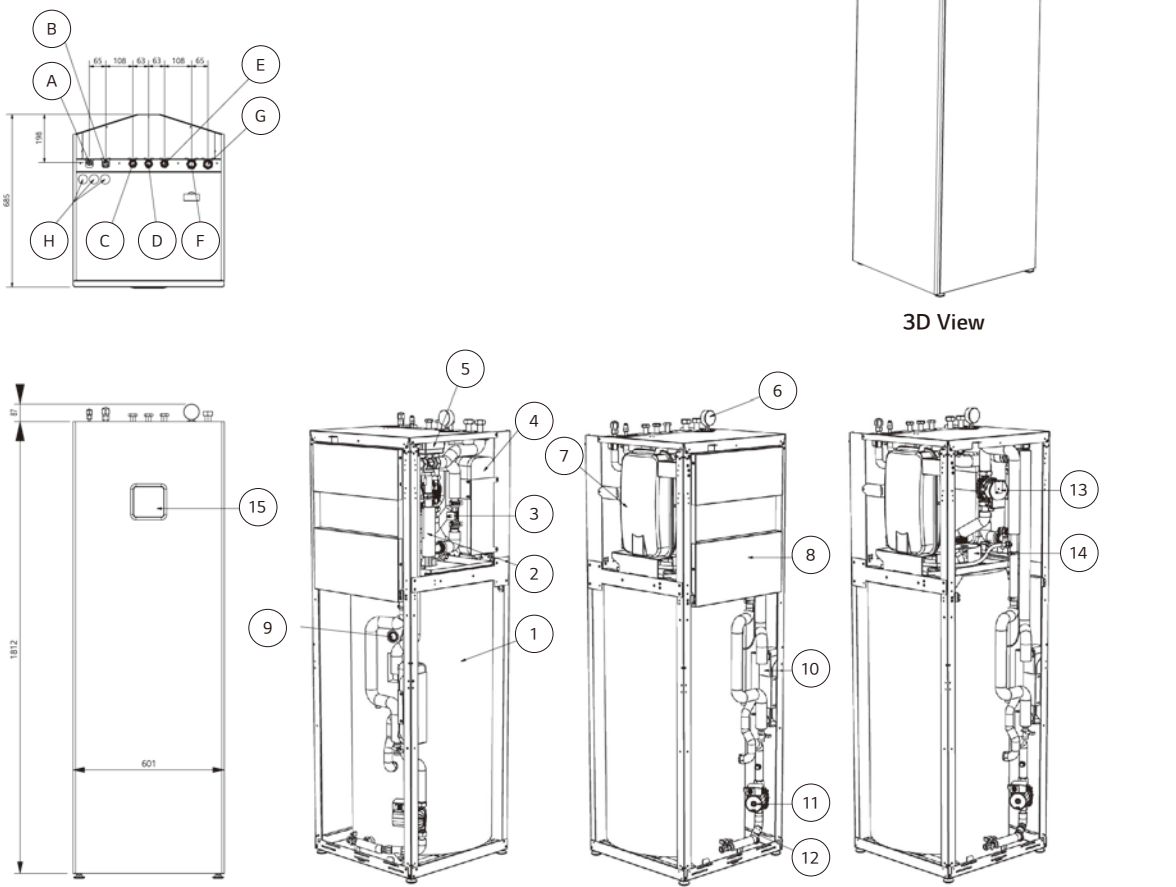
[Unit : mm]



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)	-

HN0916T NB1

[Unit : mm]



No.	Part Name	Description
1	DHW Tank	Domestic Hot Water Tank (200L)
2	Electric Heater	Max. 6kW
3	Flow Sensor	SIKA VVXC9SNBUC00252P
4	Heat Exchanger	Plate-heat-exchanger (refrigerant /water)
5	3 Way Valve	3 Way valve (DHW /heating)
6	Pressure Gauge	Pressure gauge
7	Expansion Vessel (12L)	Expansion vessel for Heating
8	Control Box	PCB and terminal blocks
9	Magnesium Anode	To prevent corrosion
10	Heat Exchanger	Plate-heat-exchanger (water /DHW)
11	DHW Water Pump	WILO ZRS 15/6-3 KU
12	DHW Strainer	Filtering and stacking particles
13	Main Water Pump	WILO Para KU 25-130/8-75/12 iPWM1
14	Bracket	For DHW Expansion vessel (accessory)
15	Remote Controller	Built-in remote controller

No.	Description
A	G5/8" Refrigerant Gas Pipe
B	G3/8" Refrigerant liquid Pipe
C	G3/4" Domestic hot water outlet
D	G3/4" Domestic cold water inlet
E	G3/4" DHW Re-circulation
F	G1" Heating circuit inlet
G	G1" Heating circuit outlet
H	Cable lead throughs