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AIR-TO-WATER HEAT PUMP **THERMAV™**

NATURAL HEATING MACHINE

Catalogue 2011



LG Electronics' **Eco-friendly** Technology

LG Electronics' environmental policy is centered on its "Life's Good When it's Green" program. The program is divided into two areas: pre-production and post-production. LG Electronics' goal is to reduce greenhouse gases in the pre- and post-production stages by 150,000 tons and 30,000,000 tons, respectively, by 2020. This reduction of greenhouse gases emitted during a product's life cycle (including raw materials used in production, product distribution, product usage, and product disposal) will be carried out in stages.



Nature.....
Human.....
Comfort.....

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THERMA V™ LINE-UP

THERMA V Split Type (R410A) _ 1Ø 230V / 3Ø 400V

| Capacity _ kW | 9.0 | 12.0 | 14.0 | 16.0 |
|---------------|---|--|---|--|
| Split (R410A) |  1Ø |  1Ø / 3Ø |  1Ø / 3Ø |  1Ø / 3Ø |

THERMA V Split V2 Injection Type (R410A) _ 1Ø 230V / 3Ø 400V


| Capacity _ kW | 12.0 | 14.0 |
|----------------------------|---|--|
| Split V2 Injection (R410A) |  1Ø / 3Ø |  1Ø / 3Ø |

* Split V2 Injection available from August in the market

THERMA V MONO Type (R407C) _ 1Ø 230V / 3Ø 400V

| Capacity _ kW | 10.0 | 12.0 | 14.0 |
|---------------|--|------|------|
| MONO (R407C) |  1Ø / 3Ø | | |

SANITARY TANK

| Volume_Liter | Single Coil, 200 liter | Single Coil, 300 liter | Double Coil, 200 liter | Double Coil, 300 liter |
|---------------------|---|------------------------|---|------------------------|
| Sanitary Water Tank |  | |  | |

LG Innovation Natural Heating Machine

THERMA V, Natural Heating Machine, Aiming at all-in-one Solution

Economical : According to its innovative technology and advanced performance efficiency, THERMA V offers one of the highest cost-saving and payback with any heating system in the market!

Flexible : A solution that is easy to install and does not require constant house renovations.

Natural : THERMA V respects the environment by using two renewable energy sources, the air and the sun, and by reducing CO₂ emissions.

Government Subsidy : According to recent trends, the adoption of renewable energy, the heat pumps may enable consumers to obtain a government subsidy under certain conditions.



What is THERMA V?

The Solution for New Housing and Renovation

THERMA V was specially conceived to respond to the needs of the renovation market (to relieve or replace a boiler) and the new housing market. The product adapts perfectly to individual and collective residential applications. Moreover, this Air-to-Water heat pump makes up an eco-friendly product that uses two renewable energy sources – the air and the sun. Finally, it proves economics with coefficients of performances (COP) up to 4.5, among the most advanced on the market.



- Different heat transmitters :
 - > Heating Floorboard
 - > Radiators
 - > Fan Coil Unit
- Optional Accessories :
 - > Sanitary Hot Water Tank



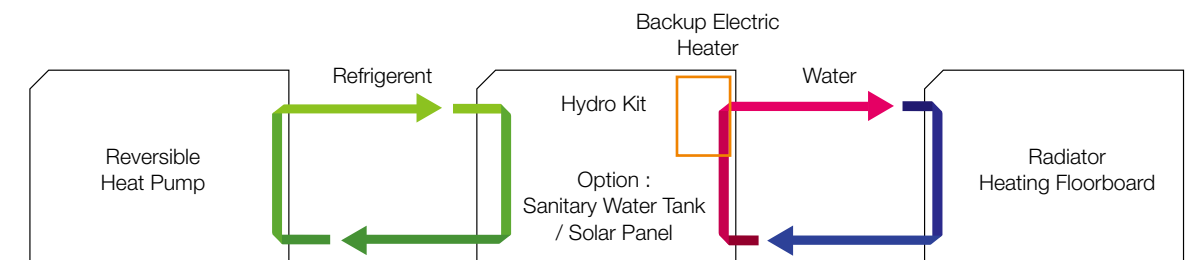
A Natural Solution

- Economical system with advanced coefficient of performances: COP = 4.5.
- Utilization of two renewable energies: Air and sun.
- Reduced CO2 emissions compared to gas or fuel heating.

A Flexible Solution

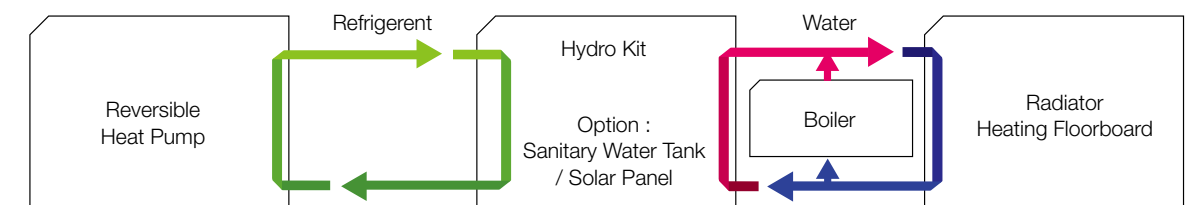
- Monovalent operation :
A compact technology, THERMA V is capable of responding to all of your daily comfort & energy needs. In addition, if the outdoor temperature decreases below the seasonal temperature, a backup electric heater will come to guarantee your optimal well-being.

Application : Replacing Conventional Boiler



- Alternative Bivalent Operation :
THERMA V heat pump can also be integrated in the installation of existing boiler(gas or fuel). Boiler takes over space heating and sanitary hot water, in case of severe low ambient temperature.

Application : Using Existing Boiler



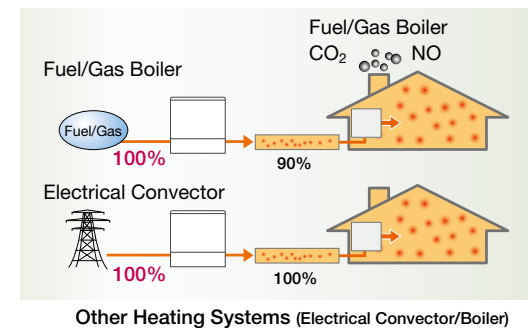
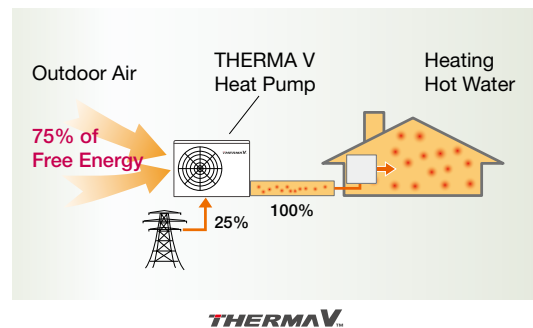
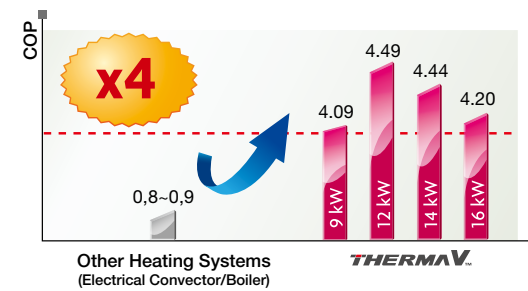
- Simplicity of Installation :
THERMA V includes a compact outdoor unit, plus an indoor unit that is easy to install. Only one refrigerating link is required to connect the two elements.

Benefits of THERMA V

Energy Performance

Advanced Coefficients of Performance (COP) for More Energy Saving

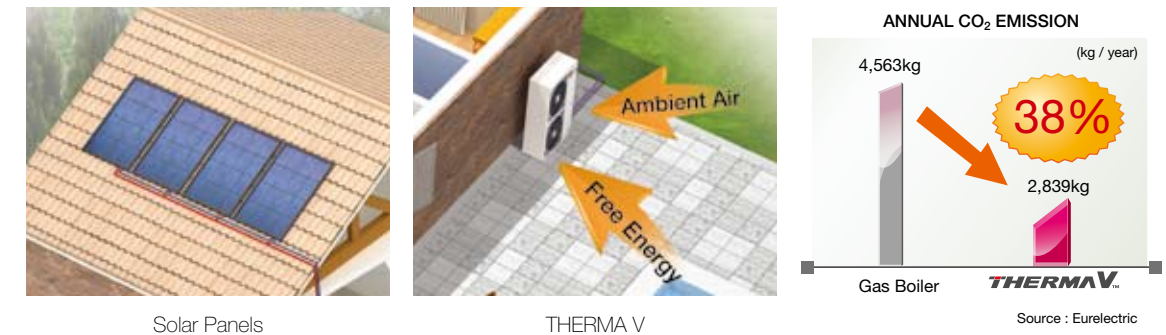
As generating free energy from outdoor air even in low temperature, THERMA V makes it possible to heat efficiently. With Inverter Technology of LGE, THERMA V can make higher efficiency level up to the range of 4.1 to 4.5. In other words, consuming 1kW of electric energy of an electrical network enables more than 4kW of heating energy.



Respecting the Environment

Reducing CO₂ Emissions

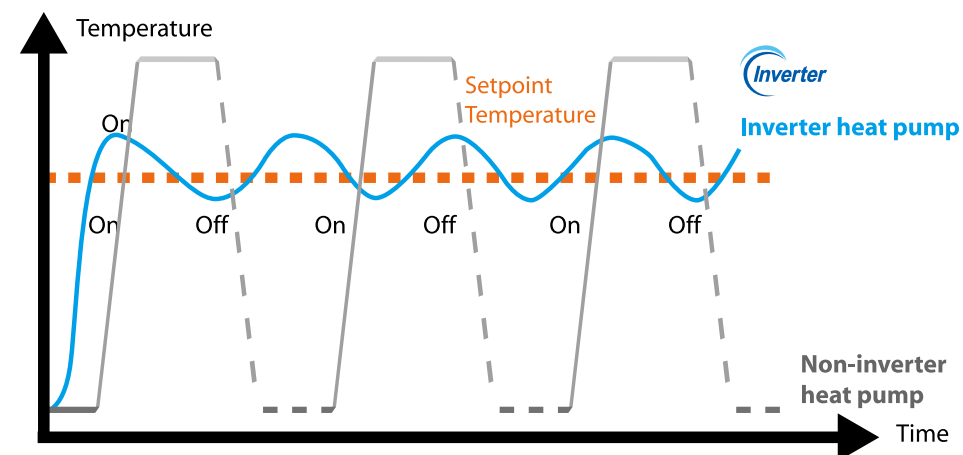
The THERMA V solution by LG adopts two renewable energies, the air and the sun. This eco-friendly system will decrease CO₂ emissions from heating systems on fossil energies such as gas and fuel.



Inverter regulation, for more serenity



Once the desired temperature is achieved, unlike conventional air to water heat pump that turns the compressor on and off, LG inverter units adjust and constantly vary the compressor speed to maintain the desired temperature with minimal fluctuation to ensure that your comfort is not compromised.

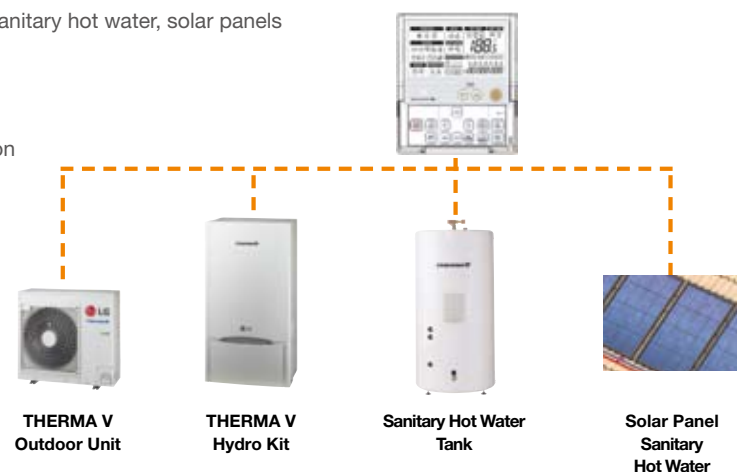


Benefits of THERMA V

Convenient Control

Control of Energy Installation

- Control of the generation of heating, sanitary hot water, solar panels
- Control of weekly scheduling
- Control of operating modes
- Control of the water temperature
- Control of heating emergency operation



Heating Emergency Operation

Heating is essential during winter. THERMA V is equipped with an emergency operation that allows the maintenance of heating in case of possible failure.

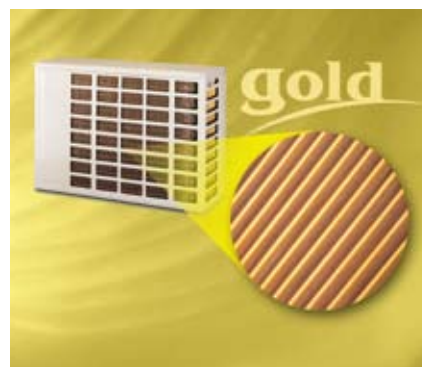
The heating security mode consist of two levels the indoor:

- Level 1 : When indoor unit malfunctions, the outdoor unit operates under a pre-defined emergency operation mode.
- Level 2 : When outdoor unit malfunctions, electronic heater of the indoor unit operates under a pre-defined emergency operation mode.

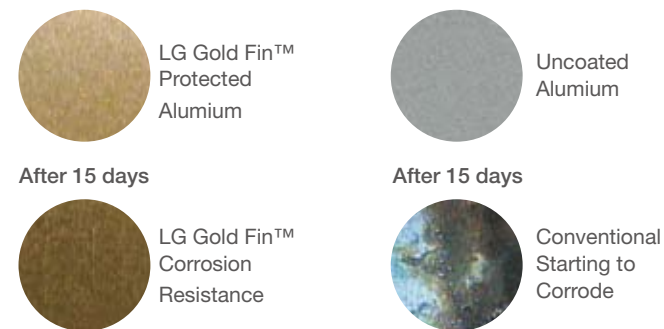


Anti-Corrosion Gold Fin™

The exchangers of our outdoor unit are treated against corrosion and pollution. This treatment guarantees the durability of the systems and high-level performance.

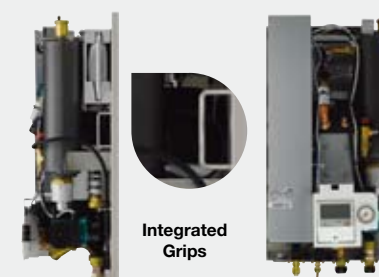


> Salt Spray Test for 15 Days

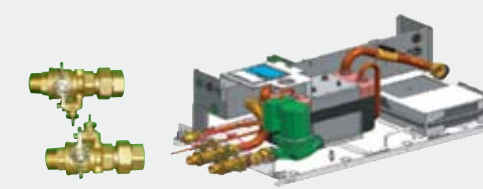


Easy Installation

Hydrokit

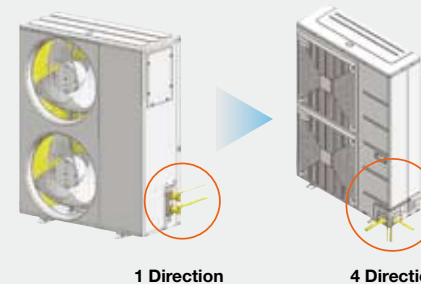


Separated Shut-off valves



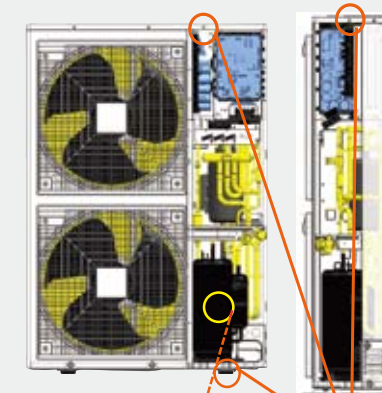
Outdoor Unit _ Split, MONO

- Refrigerating connection is possible in four directions



Facilitated maintenance

- Access to vital parts of the machine thanks to the new removable front panel fixed with three screws.



Jacking-up Grips

- Easy to manipulate thanks to the integrated grips



Benefits of THERMA V

V2 Injection technology-adopted THERMA V Split offers you most comfortable atmosphere in extreme cold weather condition by providing 100% heating performance at -15°C without an auxiliary heater or boiler. Therefore, it saves users electricity cost greatly (Peak data result with heating steady-state without defrost effect at the test condition of A*/W35)

100% performance at -15°C without electric heaters

A Compelling Reason to Use LG V2 Injection

100% stable & constant heating down to -15°C
(Therma V provides 100% comfort at any outside condition even down to -15°C without an auxiliary heater)



70% heating performance at -20°C

Save electricity consumption and save electricity bill

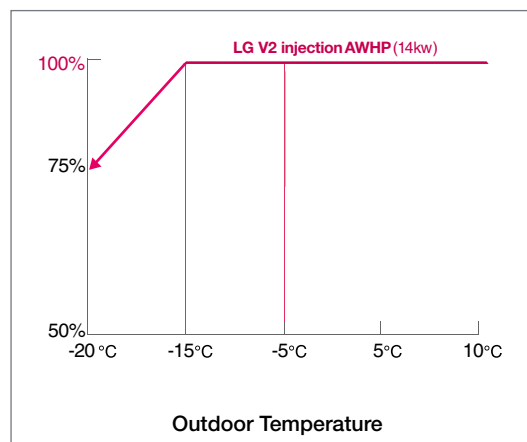
Eco-friendliness

Inverter technology offers Ultimate comfortable environment

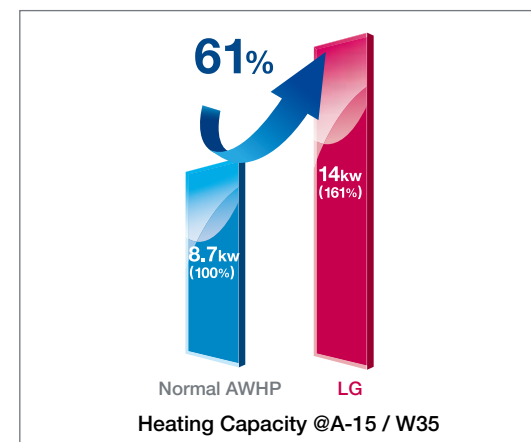
Constant Heating - V2 Injection Technology

Effects of V2 Injection compressor

Expansion of AWHP operating range



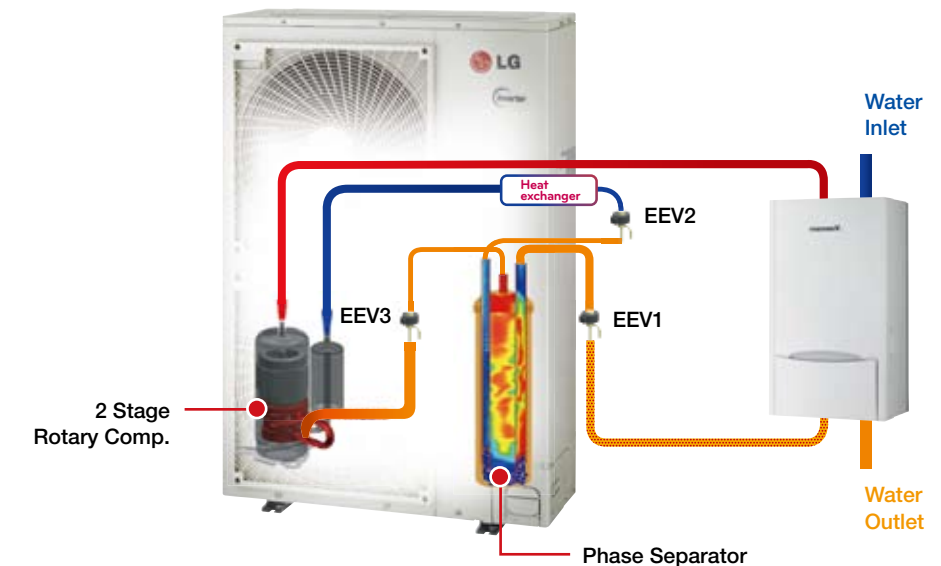
Heating capacity increase



Split V2 Injection - Logic

Heating capacity Increase V2 Injection Rotary compressor

Cycle Diagram



LG go through a real field test in Finland to secure reliability at the severe low temperature.



THERMA V SPLIT Hydrokit

Hydrokit (1ø, 3ø)



HYDROKIT

- HN0916. NK1
- HN0926. NK1
- HN0936. NK1
- HN0914. NK1

Up to 9kW

- HN1616. NK1
- HN1626. NK1
- HN1636. NK1
- HN1629. NK1
- HN1639. NK1

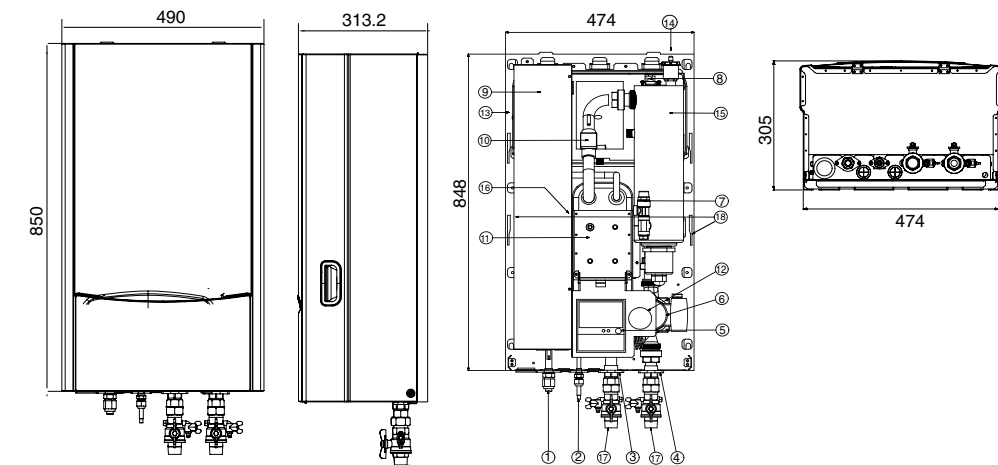
Up to 16kW



Specifications

| Hydrokit _ Indoor Unit | *HN0916. NK1 | *HN0926. NK1 | *HN0936. NK1 | HN0914. NK1 | HN1616. NK1 | HN1626. NK1 | HN1636. NK1 | *HN1629. NK1 | HN1639. NK1 |
|-----------------------------|---------------------|--------------|------------------|------------------|---|--------------|---|--------------|------------------|
| Combined Outdoor Unit | HU091.U41 - 1ø 230V | | | | HU121.U31 - 1ø 230V HU141.U31 - 1ø 230V HU161.U31 - 1ø 230V | | HUV121.U31 - 1ø 230V HUV141.U31 - 1ø 230V HU123.U31 - 3ø 400V HU143.U31 - 3ø 400V HU163.U31 - 3ø 400V | | |
| Electric Power Supply | 1ø/220-240V/50Hz | 3ø/220V/50Hz | 3ø/380-415V/50Hz | 1ø/220-240V/50Hz | 1ø/220-240V/50Hz | 3ø/220V/50Hz | 3ø/380-415V/50Hz | 3ø/220V/50Hz | 3ø/380-415V/50Hz |
| Heater Capacity | 6 | | | 4 | 6 | | | 9 | |
| Dimension W*H*D | 490*850*313 | | | | 490*850*313 | | | | |
| Weight | 52 | | | | 55 | | | | |
| Noise Level at 1 meter | 28 | | | | 28 | | | | |
| Leaving Water Heating | 15-55 | | | | 15-55 | | | | |
| Temperature Cooling | 6-30 | | | | 6-30 | | | | |
| Water Pump Max. Power Input | 135 | | | | 205 | | | | |
| Max. Head | 6.4 | | | | 7 | | | | |
| Expansion Tank | 8 | | | | 8 | | | | |

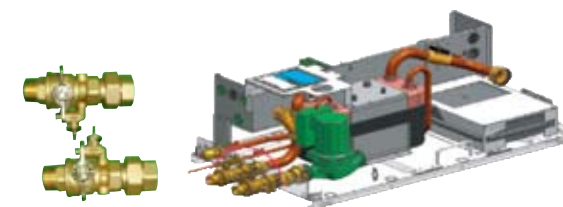
* Available from June of 2011



| N° | ITEM |
|----|---|
| 1 | Refrigerating Pipe - Gas |
| 2 | Refrigerating Pipe - Liquid |
| 3 | Water Connection - Entry - 1 inch |
| 4 | Water Connection - Exit - 1 inch |
| 5 | Control Panel |
| 6 | Water Pump |
| 7 | Discharge Gate - Open when pressed > 3 bars |
| 8 | Thermostat |
| 9 | Control Box |
| 10 | Water Flow Switch |

| N° | ITEM |
|----|------------------------------|
| 11 | Plate Heat Exchanger |
| 12 | Hydraulic Pressure Manometer |
| 13 | Expansion Vessel |
| 14 | Air-vent |
| 15 | Electric Heater |
| 16 | Strainer |
| 17 | Shut-off Valve |
| 18 | Grip |

Separated Shut-off valves



Outdoor Unit (1ø 230V)
Maximum 55°C Water Temperature

THERMA V™

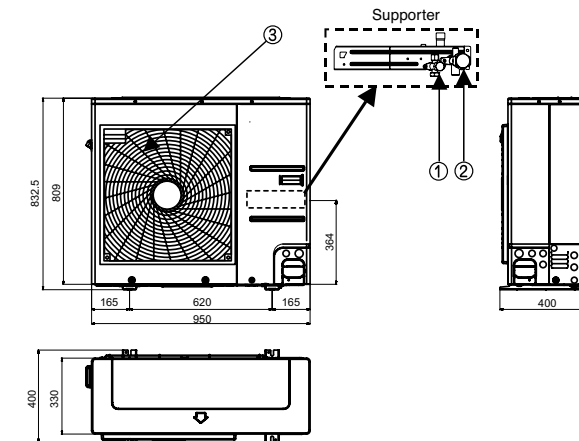


THERMA V
SPLIT _ 1ø



OUTDOOR UNIT

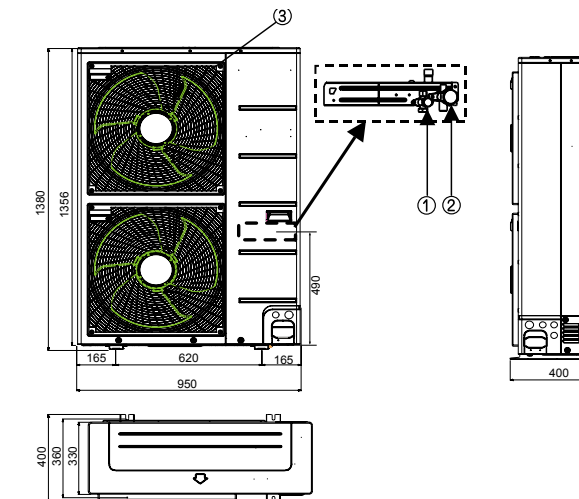
HU091. U41 9kW



| N° | ITEM |
|----|-----------------------------|
| 1 | Refrigerating Pipe - Liquid |
| 2 | Refrigerant Pipe - Gas |
| 3 | Air Discharge Grille |

OUTDOOR UNIT

HU121. U31 12kW
HU141. U31 14kW
HU161. U31 16kW



| N° | ITEM |
|----|-----------------------------|
| 1 | Refrigerating Pipe - Liquid |
| 2 | Refrigerant Pipe - Gas |
| 3 | Air Discharge Grille |

Specifications

| Outdoor Unit | HU091. U41 | HU121. U31 | HU141. U31 | HU161. U31 | |
|----------------------|--|----------------------|---|---------------|-------|
| Combined Hydrokit | HN0916. NK1 HN0926. NK1 HN0936. NK1 HN0914. NK1 | | HN1616. NK1 HN1626. NK1 HN1636. NK1 HN1629. NK1 HN1639. NK1 | | |
| Power Supply | ø / V / Hz 1ø / 220-240V / 50Hz | | | | |
| Nominal Capacity | Heating(A10/W35) kW | 9.71 | 13.32 | 14.94 | 16.93 |
| | Heating(A7/W35) kW | 9 | 12 | 14 | 16 |
| | Heating(A2/W35) kW | 6.87 | 9.4 | 10.69 | 11.9 |
| | Heating(A-7/W35) kW | 8.61 | 11.48 | 13.11 | 14.8 |
| Nominal Input | Cooling(A35/W18) kW | 9.00 | 14.00 | 14.00 | 14.00 |
| | Heating(A10/W35) kW | 2.2 | 2.99 | 3.39 | 3.87 |
| | Heating(A7/W35) kW | 2.2 | 2.67 | 3.15 | 3.81 |
| | Heating(A2/W35) kW | 2.07 | 2.8 | 3.22 | 3.62 |
| COP | Heating(A-7/W35) kW | 3.19 | 4.16 | 4.85 | 5.61 |
| | Cooling(A35/W18) kW | 2.65 | 4.40 | 4.40 | 4.40 |
| | Heating(A10/W35) W/W | 4.41 | 4.45 | 4.41 | 4.37 |
| | Heating(A7/W35) W/W | 4.09 | 4.49 | 4.44 | 4.20 |
| EER | Heating(A2/W35) W/W | 3.32 | 3.36 | 3.32 | 3.29 |
| | Heating(A-7/W35) W/W | 2.70 | 2.76 | 2.70 | 2.64 |
| Sound pressure level | Cooling(A35/W18) W/W | 3.40 | 3.18 | 3.18 | 3.18 |
| | Heating dBA | 52 | | 53 | |
| Dimension | Cooling dBA | 52 | | 54 | |
| | W*H*D | 950*834*330 | | 950*1,380*330 | |
| Weight | kg | 64 | | 105 | |
| | Refrigerant (R410A) | Pre-charged amount g | 1,90 | | 2,980 |
| | Pipe Diameter(Liquid/Gas) inch | | | 3/8, 5/8 | |

Outdoor Unit (3ø 400V)
Maximum 55°C Water Temperature

THERMA V™

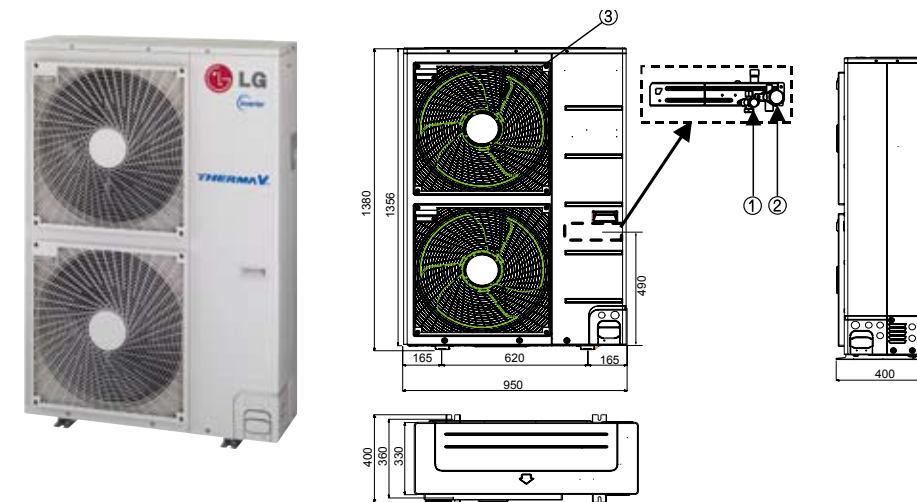


THERMA V
SPLIT _ 3ø



OUTDOOR UNIT

| | |
|------------|------|
| HU123. U31 | 12kW |
| HU143. U31 | 14kW |
| HU163. U31 | 16kW |



| N° | ITEM |
|----|-----------------------------|
| 1 | Refrigerating Pipe - Liquid |
| 2 | Refrigerant Pipe - Gas |
| 3 | Air Discharge Grille |

Specifications

| Outdoor Unit | | HU123. U31 | HU143. U31 | HU163. U31 |
|----------------------|---------------------------|---|------------|------------|
| Combined Hydrokit | | HN1616. NK1 HN1626. NK1 HN1636. NK1 HN1629. NK1 HN1639. NK1 | | |
| Power Supply | ø / V / Hz | 3ø / 380-415V / 50Hz | | |
| Nominal Capacity | Heating(A10/W35) | 13.25 | 15.06 | 17.34 |
| | Heating(A7/W35) | 12 | 14 | 16 |
| | Heating(A2/W35) | 9.46 | 10.89 | 12.22 |
| | Heating(A-7/W35) | 11.66 | 12.72 | 14.92 |
| | Cooling(A35/W18) | 14.60 | 15.50 | 16.80 |
| Nominal Input | Heating(A10/W35) | 3.02 | 3.49 | 4.1 |
| | Heating(A7/W35) | 2.72 | 3.24 | 3.81 |
| | Heating(A2/W35) | 2.83 | 3.28 | 3.82 |
| | Heating(A-7/W35) | 4.31 | 4.98 | 5.95 |
| | Cooling(A35/W18) | 4.02 | 4.65 | 5.09 |
| COP | Heating(A10/W35) | 4.39 | 4.32 | 4.23 |
| | Heating(A7/W35) | 4.41 | 4.32 | 4.20 |
| | Heating(A2/W35) | 3.34 | 3.32 | 3.20 |
| | Heating(A-7/W35) | 2.71 | 2.55 | 2.51 |
| EER | Cooling(A35/W18) | 3.63 | 3.33 | 3.30 |
| Sound pressure level | Heating | 53 | | |
| | Cooling | 54 | | |
| Dimension | W*H*D | 950*1,380*330 | | |
| Weight | kg | 105 | | |
| Refrigerant (R410A) | Pre-charged amount | 2,980 | | |
| | Pipe Diameter(Liquid/Gas) | 3/8, 5/8 | | |

THERMA V V2 Injection 1ø, 3ø

Outdoor Unit (1ø 230V)



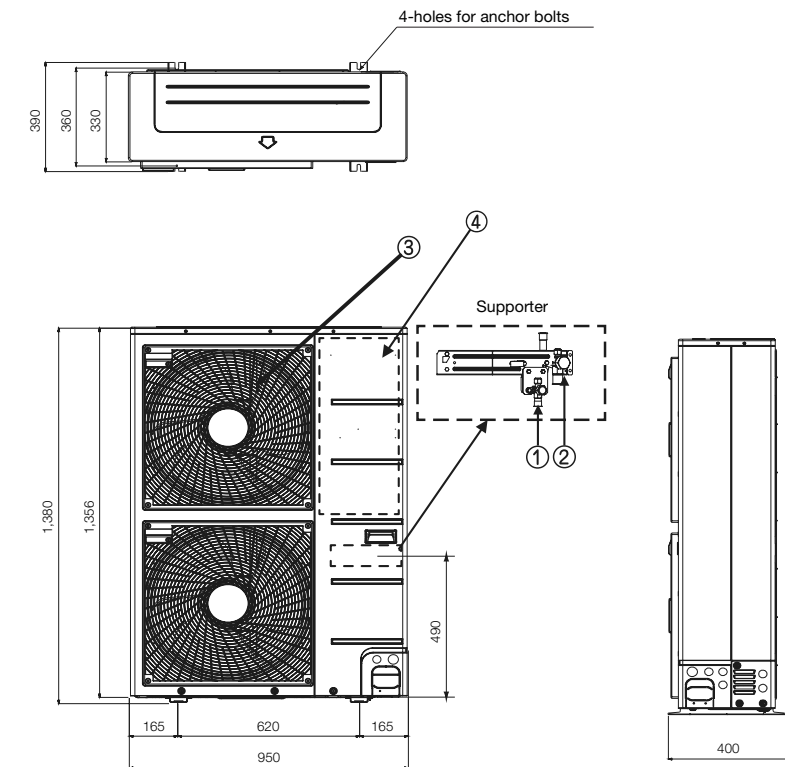
OUTDOOR UNIT

| | |
|-------------|------|
| HUV121. U31 | 12kW |
| HUV141. U31 | 14kW |
| HUV123. U31 | 12kW |
| HUV143. U31 | 14kW |

Specifications

| Outdoor Unit | | HUV121. U31 (*) | HUV141. U31 | HUV123. U31 | HUV143. U31 | |
|----------------------|----------------------------|--|-------------|----------------------|-------------|-------|
| Combined Hydrokit | | HN1616.NK1 HN1626.NK1 HN1636.NK1 HN1629.NK1 HN1639.NK1 | | | | |
| Power Supply | ø / V / Hz | 1ø / 220-240V / 50Hz | | 3ø / 380-415V / 50Hz | | |
| Nominal Capacity | Heating(A10/W35) | kW | 13.10 | 14.69 | 13.10 | 14.69 |
| | Heating(A7/W35) | kW | 12.00 | 14.00 | 12.00 | 14.00 |
| | Heating(A2/W35) | kW | 9.85 | 11.05 | 9.85 | 11.05 |
| | Heating(A-2/W35) | kW | 12.11 | 13.58 | 12.11 | 13.58 |
| | Cooling(A35/W18) | kW | 12.00 | 14.00 | 12.00 | 14.00 |
| Nominal Input | Heating(A10/W35) | kW | 3.05 | 3.34 | 3.05 | 3.34 |
| | Heating(A7/W35) | kW | 2.82 | 3.32 | 2.82 | 3.32 |
| | Heating(A2/W35) | kW | 3.14 | 3.44 | 3.14 | 3.44 |
| | Heating(A-2/W35) | kW | 5.16 | 5.71 | 5.16 | 5.71 |
| | Cooling(A35/W18) | kW | 3.33 | 3.88 | 3.33 | 3.88 |
| COP | Heating(A10/W35) | W/W | 4.30 | 4.40 | 4.30 | 4.40 |
| | Heating(A7/W35) | W/W | 4.26 | 4.22 | 4.26 | 4.22 |
| | Heating(A2/W35) | W/W | 3.14 | 3.21 | 3.14 | 3.21 |
| | Heating(A-2/W35) | W/W | 2.35 | 2.38 | 2.35 | 2.38 |
| EER | Cooling(A35/W18) | W/W | 3.60 | 3.61 | 3.60 | 3.61 |
| | Peak Data at A-15/W35 (**) | Heating Capacity | kW | 12.28 | 13.78 | 12.28 |
| | COP | W/W | 2.32 | 2.35 | 2.32 | 2.35 |
| Sound pressure level | Heating | dBA | 54 | | | |
| | Cooling | dBA | 53 | | | |
| Dimension | W*H*D | 950*1,380*330 | | | | |
| Weight(Net) | kg | 105 | | | | |
| Refrigerant (R410A) | Pre-charged amount | g | 3,400 | | | |
| | Pipe Diameter(Liquid/Gas) | incl | (3/8)/(5/8) | | | |

(*) : Specification will be fixed when this model is completely developed
 (**): Heating steady-state performance without defrost effect



| N° | ITEM |
|----|-------------------------------|
| 1 | Liquid side service valve(mm) |
| 2 | Gas side service valve(mm) |
| 3 | Air discharge grill |
| 4 | Control Cover |

Outdoor Unit (1ø 230V)



THERMA V
MONO _ 1ø

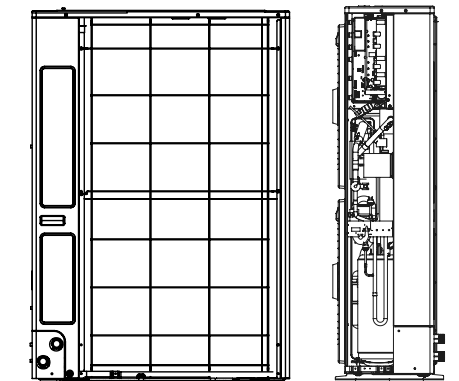
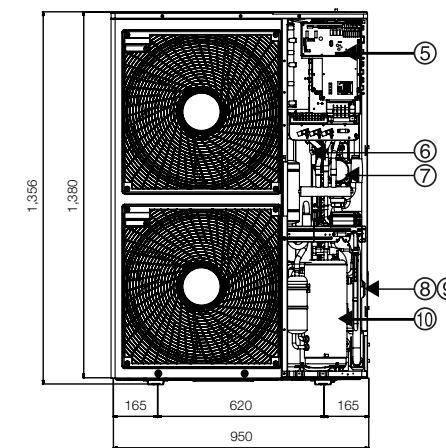
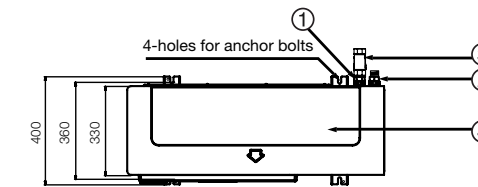


OUTDOOR UNIT

| | |
|-------------|------|
| HM091M. U31 | 9kW |
| HM121M. U31 | 12kW |
| HM141M. U31 | 14kW |

Specifications

| Outdoor Unit | | | HM091M. U31 | HM121M. U31 | HM141M. U31 |
|---------------------------|-------------------------|-----|----------------------|-------------|-------------|
| Power Supply | ø / V / Hz | | 1ø / 220-240V / 50Hz | | |
| Nominal Capacity | Heating(A10/W35) | kW | 10.58 | 12.7 | 14.68 |
| | Heating(A7/W35) | kW | 10 | 12 | 14 |
| Nominal Input | Heating(A2/W35) | kW | 5.67 | 6.83 | 8.57 |
| | Heating(A-7/W35) | kW | 7.40 | 9.0 | 11.05 |
| | Cooling(A35/W18) | kW | 10.00 | 12.00 | 14.00 |
| COP | Heating(A10/W35) | W/W | 2.39 | 2.91 | 3.43 |
| | Heating(A7/W35) | W/W | 2.35 | 2.86 | 3.38 |
| | Heating(A2/W35) | W/W | 2.19 | 2.57 | 2.99 |
| | Heating(A-7/W35) | W/W | 3.02 | 3.62 | 4.23 |
| EER | Cooling(A35/W18) | W/W | 2.74 | 3.33 | 4.01 |
| | Heating(A10/W35) | W/W | 4.43 | 4.36 | 4.28 |
| Sound pressure level | Heating(A7/W35) | W/W | 4.26 | 4.20 | 4.14 |
| | Heating(A2/W35) | W/W | 2.59 | 2.66 | 2.87 |
| Dimension | Heating(A-7/W35) | W/W | 2.45 | 2.49 | 2.61 |
| | Cooling(A35/W18) | W/W | 3.65 | 3.60 | 3.49 |
| Weight | kg | 53 | 53 | 54 | |
| Refrigerant(R407C) | Pre-charged amount | g | 53 | 53 | 54 |
| Leaving Water Temperature | Heating | °C | 20-65 | | |
| | Cooling | °C | 6-25 | | |
| Water Pump | Maximum Power Input | W | | 205 | |
| | Maximum Head | m | | 7 | |
| | Minimum Water Flow Rate | LPM | | 12 | |



| N° | ITEM |
|----|----------------------|
| 1 | Energy Water Pipe |
| 2 | Leaving Water Pipe |
| 3 | Strainer |
| 4 | Top Cover |
| 5 | Control Box |
| 6 | Plate Heat Exchanger |
| 7 | Water Pump |
| 8 | Pressure Gage |
| 9 | Safety Valve |
| 10 | Compressor |

Outdoor Unit (3ø 400V)



THERMA V
MONO _ 3ø

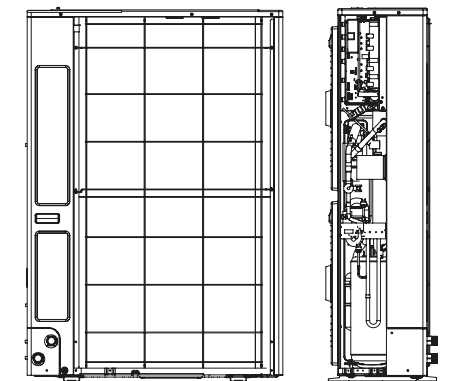
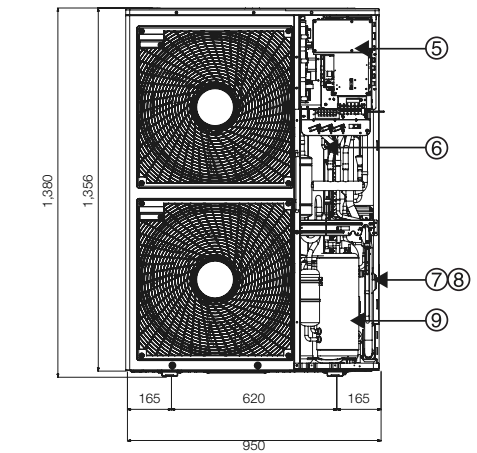
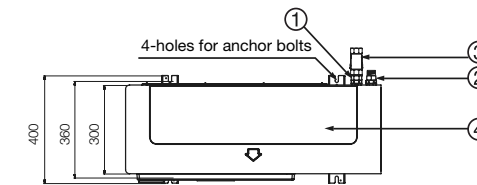


OUTDOOR UNIT

| | |
|-------------|------|
| HM103M. U31 | 9kW |
| HM123M. U31 | 12kW |
| HM143M. U31 | 14kW |

Specifications

| Outdoor Unit | | HM103M. U31 | HM123M. U31 | HM143M. U31 |
|---------------------------|------------------|----------------------|-------------|-------------|
| Power Supply | ø/ V / Hz | 3ø / 380-415V / 50Hz | | |
| Nominal Capacity | Heating(A10/W35) | 10.79 | 12.70 | 14.81 |
| | Heating(A7/W35) | 10.00 | 12.00 | 14.00 |
| Nominal Input | Heating(A2/W35) | 7.36 | 8.04 | 8.45 |
| | Heating(A-7/W35) | 9.29 | 10.83 | 11.65 |
| | Heating(A10/W35) | 2.45 | 2.90 | 3.40 |
| COP | Heating(A7/W35) | 2.35 | 2.86 | 3.38 |
| | Heating(A2/W35) | 2.59 | 2.83 | 3.06 |
| | Heating(A-7/W35) | 3.37 | 4.01 | 4.42 |
| Sound pressure level | Heating(A10/W35) | 4.40 | 4.38 | 4.36 |
| | Heating(A7/W35) | 4.26 | 4.20 | 4.14 |
| | Heating(A2/W35) | 2.84 | 2.84 | 2.76 |
| | Heating(A-7/W35) | 2.76 | 2.70 | 2.64 |
| Dimension | W*H*D | 950*1,380*330 | | |
| Weight | kg | 128 | | |
| Refrigerant(R407C) | g | 3,550 | | |
| Leaving Water Temperature | Heating °C | 20-65 | | |



| N° | ITEM |
|----|----------------------|
| 1 | Energy Water Pipe |
| 2 | Leaving Water Pipe |
| 3 | Strainer |
| 4 | Top Cover |
| 5 | Control Box |
| 6 | Plate Heat Exchanger |
| 7 | Pressure Gauge |
| 8 | Safety Valve |
| 9 | Compressor |

An Indoor Box for MONOBLOC 3ø

THERMA V Indoor Box



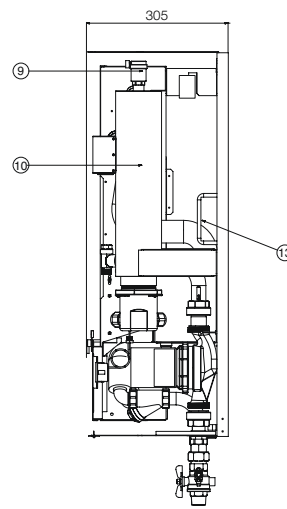
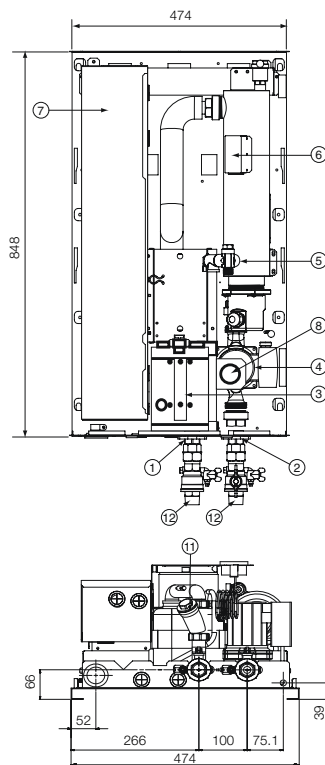
The indoor box contains an electric backup heater and a water pump.

The traditional MONOBLOC includes an electrical back-up heater and a water pump in the outside unit but LG's '3-phase' MONOBLOC puts the water pump in the indoor box so that it keeps the water pump from being frozen as it is installed inside the building separately. It also generate additional heat energy with an electrical back-up Heater.

Specifications

| Outdoor Unit | | | CHN1426. NK1 | CHN1436. NK1 | CHN1429. NK1 | CHN1429. NK1 |
|-------------------|-------------------------|--------|------------------|----------------------|------------------|----------------------|
| Electric Heater | Power Supply | ø/V/Hz | 3ø / 220V / 50Hz | 3ø / 380-415V / 50Hz | 3ø / 220V / 50Hz | 3ø / 380-415V / 50Hz |
| | Capacity | Kw | 6 | 6 | 9 | 9 |
| Water Pump | Maximum Power Input | W | 205 | 205 | 205 | 205 |
| | Maximum Head | m | 7 | 7 | 7 | 7 |
| | Minimum Water Flow Rate | LPM | 15 | 15 | 15 | 15 |
| Dimension | W*H*D | | 490*850*315 | 490*850*315 | 490*850*315 | 490*850*315 |
| Weight | kg | | 38 | 38 | 38 | 38 |
| Water Connections | Entry / Leaving | mm | 25 / 25 | 25 / 25 | 25 / 25 | 25 / 25 |
| Safety Valve | Relief Pressure | Bar | 3 | 3 | 3 | 3 |

INDOOR BOX



| N° | ITEM |
|----|--------------------|
| 1 | Energy Water Pipe |
| 2 | Leaving Water Pipe |
| 3 | Control Panel |
| 4 | Water Pump |
| 5 | Safety Valve |
| 6 | Thermal Switch |
| 7 | Control Box |
| 8 | Pressure Gage |
| 9 | Air Vent |
| 10 | Electronic Heater |
| 11 | Strainer |
| 12 | Shut-off Valve |
| 13 | Carrying Handle |



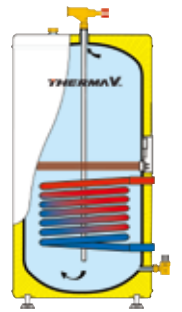
AIR-TO-WATER HEAT PUMP
THERMA VTM
NATURAL HEATING MACHINE

THERMA V Sanitary Water



SANITARY WATER TANK – SINGLE COIL

| | |
|-----------|------------|
| LGRTV200E | 198 LITERS |
| LGRTV300E | 287 LITERS |



SANITARY WATER TANK – DOUBLE COIL

| | |
|------------|------------|
| LGRTV200VE | 198 LITERS |
| LGRTV300VE | 287 LITERS |



SANITARY WATER TANK – SINGLE COIL

| SANITARY WATER TANK | | LGRTV200VE | LGRTV300VE |
|---|--------|----------------------------|----------------------------|
| GENERAL CHARACTERISTICS | | | |
| Water Volume | L | 198 | 287 |
| Diameter | mm | 580 | 580 |
| Height | mm | 1230 | 1680 |
| Empty Weight | kg | 45 | 59 |
| Tank – Materials | | Stainless steel | Stainless steel |
| Outer Skin – Materials | | Paint Epoxy | Paint Epoxy |
| Color – White RAL | | White NC | White NC |
| CHARACTERISTICS OF ELECTRICAL BACK-UP | | | |
| Additional Electric Heater | kW | 3 | 3 |
| Adjustable Thermostat | °C | 60 – 90 | 60 – 90 |
| CHARACTERISTICS OF EXCHANGER | | | |
| Exchanger Type | | Single | Single |
| Material Exchanger | | LDX 2101 – Stainless steel | LDX 2101 – Stainless steel |
| Maximum Water Temperature | °C | 80 | 80 |
| HYDRAULIC CONNECTIONS – HEAT PUMP | | | |
| THERMA V Entry | mm | 25 | 25 |
| THERMA V Exit | mm | 25 | 25 |
| HYDRAULIC CONNECTIONS – SANITARY WATER | | | |
| City Water Entry | mm | 22 | 22 |
| Hot water Exit | mm | 22 | 22 |
| ELECTRIC CONNECTION | | | |
| Supply | ø/V/Hz | 1ø/220-240V 50Hz | 1ø/220-240V 50Hz |
| MANDATORY OPTIONAL ACCESSORIES | | | |
| Sanitary Tank Installation Kit | | PHLTA | PHLTA |

SANITARY WATER TANK – DOUBLE COIL

| SANITARY WATER TANK | | LGRTV200E | LGRTV300E |
|---|--------|----------------------------|----------------------------|
| GENERAL CHARACTERISTICS | | | |
| Water Volume | L | 198 | 287 |
| Diameter | mm | 580 | 580 |
| Height | mm | 1230 | 1680 |
| Empty Weight | kg | 50 | 64 |
| Tank – Materials | | Stainless steel | Stainless steel |
| Outer Skin – Materials | | Paint Epoxy | Paint Epoxy |
| Color – White RAL | | White NC | White NC |
| CHARACTERISTICS OF ELECTRICAL BACK-UP | | | |
| Additional Electric Heater | kW | 3 | 3 |
| Adjustable Thermostat | °C | 60 – 90 | 60 – 90 |
| CHARACTERISTICS OF EXCHANGER | | | |
| Exchanger Type | | Double | Double |
| Material Exchanger | | LDX 2101 – Stainless steel | LDX 2101 – Stainless steel |
| Maximum Water Temperature | °C | 80 (With an Heat Pump) | 80 (With an Heat Pump) |
| HYDRAULIC CONNECTIONS – HEAT PUMP | | | |
| THERMA V Entry | mm | 25 | 25 |
| THERMA V Exit | mm | 25 | 25 |
| HYDRAULIC CONNECTIONS – SANITARY WATER | | | |
| City Water Entry | mm | 22 | 22 |
| Hot water Exit | mm | 22 | 22 |
| ELECTRIC CONNECTION | | | |
| Supply | ø/V/Hz | 1ø/220-240V 50Hz | 1ø/220-240V 50Hz |
| MANDATORY OPTIONAL ACCESSORIES | | | |
| Sanitary Tank Installation Kit | | PHLTA | PHLTA |

SOLAR PANELS FOR DOUBLE COIL TANK

For better performance and energy saving, it is possible to combine the THERMA V heat pump with solar panels.



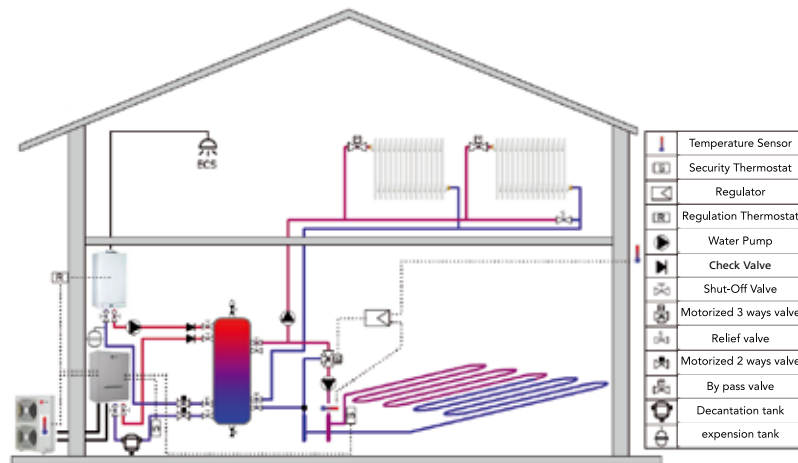
Flexible Application

Application for New Housing 1

> Monovalent operation mode

> Functions :

- Heating Floorboard • Low Temperature Radiators
- Generation of Sanitary Hot Water: Heat pump + Additional Electric Tank

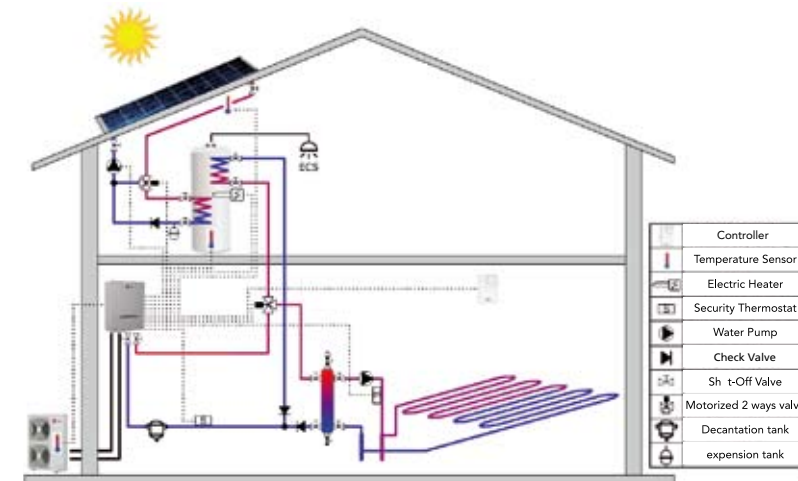


Application for New Housing 3

> Monovalent operation mode

> Functions :

- Heating Floorboard

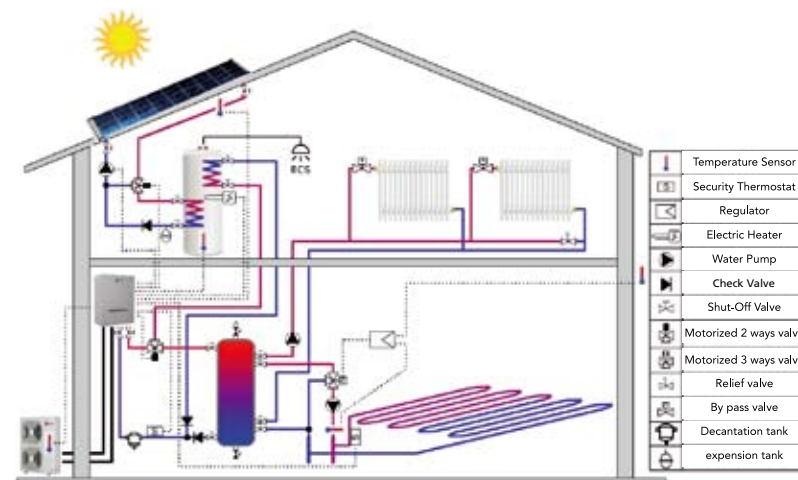


Application for New Housing 2

> Monovalent operation mode

> Functions :

- Heating Floorboard • Low Temperature Radiators
- Generation of Sanitary Hot Water: Heat pump + Additional Electric Tank + Solar Panels

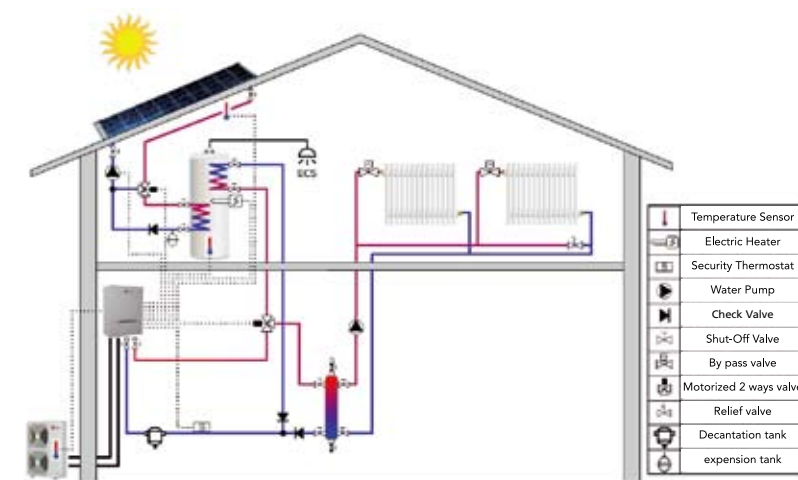


Application for New Housing 4

> Monovalent operation mode

> Functions :

- Low Temperature Radiators



Warning :

The recommended installation schemes are provided as a rough guide and are not a substitute for thorough hydraulic research performed by a professional based on the house's characteristics. LG is not responsible for damage resulting from not following this warning.

Warning :

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