

CHILLER



INVERTER SCROLL CHILLER

| Capacity (kW) | | 65 | 74 | 114 | 130 | 148 | 171 | 195 | 222 |
|---------------|---|------|----|-----|-------|-----|-----|-------|-----|
| Capacity (Kw) | Cooling | 65 | 74 | 114 | 130 | 148 | 171 | 195 | 222 |
| | Heating | 70.3 | 82 | 120 | 140.6 | 164 | 180 | 210.9 | 246 |
| | <p>Range of Unit Control</p> <p>Up to 1,110 kW (5 CHILLERS) by AC Smart Controller</p> <p>Up to 1,110 kW (5 CHILLERS) by HMI Touch controller</p> <p>Up to 2,220 kW (10 CHILLERS) by ACP (Advanced Control Platform)</p> <p>* Central controller ACP, AC Smart controller are option.</p> | | | | | | | | |

FCU

| (kW)* (kBtu/h) | | 1.8 6k | 2.7 9k | 3.2 11k | 4.1 14k | 6 20k | 7.2 24k | 9 30k | 10.5 36k | 13 44k |
|--------------------------|---------------------------|-----------------|-----------|-------------------|------------|-----------------|------------|-----------------|-------------|-----------|
| Ceiling Mounted Cassette | 4 Way Cassette | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Body Size (W x H x D, mm) | 570 x 214 x 570 | | 570 x 256 x 570 | | 840 x 204 x 840 | | 840 x 246 x 840 | | |
| | Front Panel* | PT-QAGW0 | | PT-UMC1/ PT-MCHW0 | | | | | | |

* Panels are available only for FCU

| (kW)* (kBtu/h) | | 1.5 4k | 1.8 6k | 2.5 9k | 3.2 11k | 3.9 13k | 5.5 17k | 6.6 22k |
|----------------------|---------------------------|-----------------|-----------|-----------------|------------|-------------------|------------|------------|
| Ceiling Mounted Duct | Low ESP Duct | ● | ● | ● | ● | ● | ● | ● |
| | Body Size (W x H x D, mm) | 700 x 190 x 700 | | 900 x 190 x 700 | | 1,100 x 190 x 700 | | |

※ All lineups are for 2 pipes type only.
* Based on Cooling Capacity. Cooling Capacity testing condition : Inlet/Outlet Water Temperature 7°C / 12°C, Indoor Air Temperature 27°CDB / 19°CWB

Accessories & Parts for Water Pipes Connection

| Remote Controller | Dry Contact | ETC. | Not Offered by LG and to be Purchased Separately | |
|---|----------------------------|-------------------------------------|--|---|
| | | | Parts for Water Pipes Connection | Installation Parts |
| Premium PREMTA000 (A/B) | PDRYCB000 (Simple) | Remote Temperature Sensor PQRSTA0 | Rubber Packing (4EA, OD23 x ID15 x t3.2) | Ball Valve (2EA, FPT 3/4", 20A) |
| Standard III ¹⁾ PREMTB101 (White) PREMTBB11 (Black) | PDRYCB400 (2 points) | Wi-Fi Modem PWFMD200 | Flexible Pipe (2EA, FPF 3/4", 350mm/500mm Ordered Specification) | Nipple (2EA, MPT 3/4", MPF 3/4") |
| Standard II PREMTB001 (White) PREMTBB01 (Black) | PDRYCB320 (for Thermostat) | Multi-tenant Power Module PINPMB001 | Nipple (2EA, MPT 3/4", MPF 3/4") | Strainer (1EA, FPF 3/4", #30) |
| Simple PQRVCLOQ (W) PQRCHCA0Q (W) (for Hotel) | | Group Control Wire PZCWRG3 | 2 Way Valve (On/Off, 2-wires or 3-wires) | Water Pipe (2EA, 20A, Copper or Stainless Tube) |
| Wireless Remote Controller PWLSSB21H/C (Heat Pump / Cooling Only) | | 2-Remo. Control Wire PZCWR2 | Valve insulation Material (1EA) | |
| | | Extension Wire PZCWR1 | | |
| | | Drain Hose ³⁾ (1EA, 5m) | | |

1) It could not be operated some functions.
2) The dry contact for Modbus is built-in to the FCU as default.
3) Included with installation parts



ULTIMATE INVERTER COMPRESSOR

As the core technology of the air conditioning system, the Ultimate Inverter Compressor of MULTI V 5 boasts its ultimate efficiency and durability, designed based on the unique technology and innovation of LG HVAC.

All Inverter

Provide high efficiency with low vibration and low noise

Six By-pass Valves

Prevent compressor damage due to excessively compressed refrigerant more efficiently than 4 by-pass valves

01. Vapor Injection

Wide operating range via two-stage compression

02. Enhanced Bearing with PEEK Material

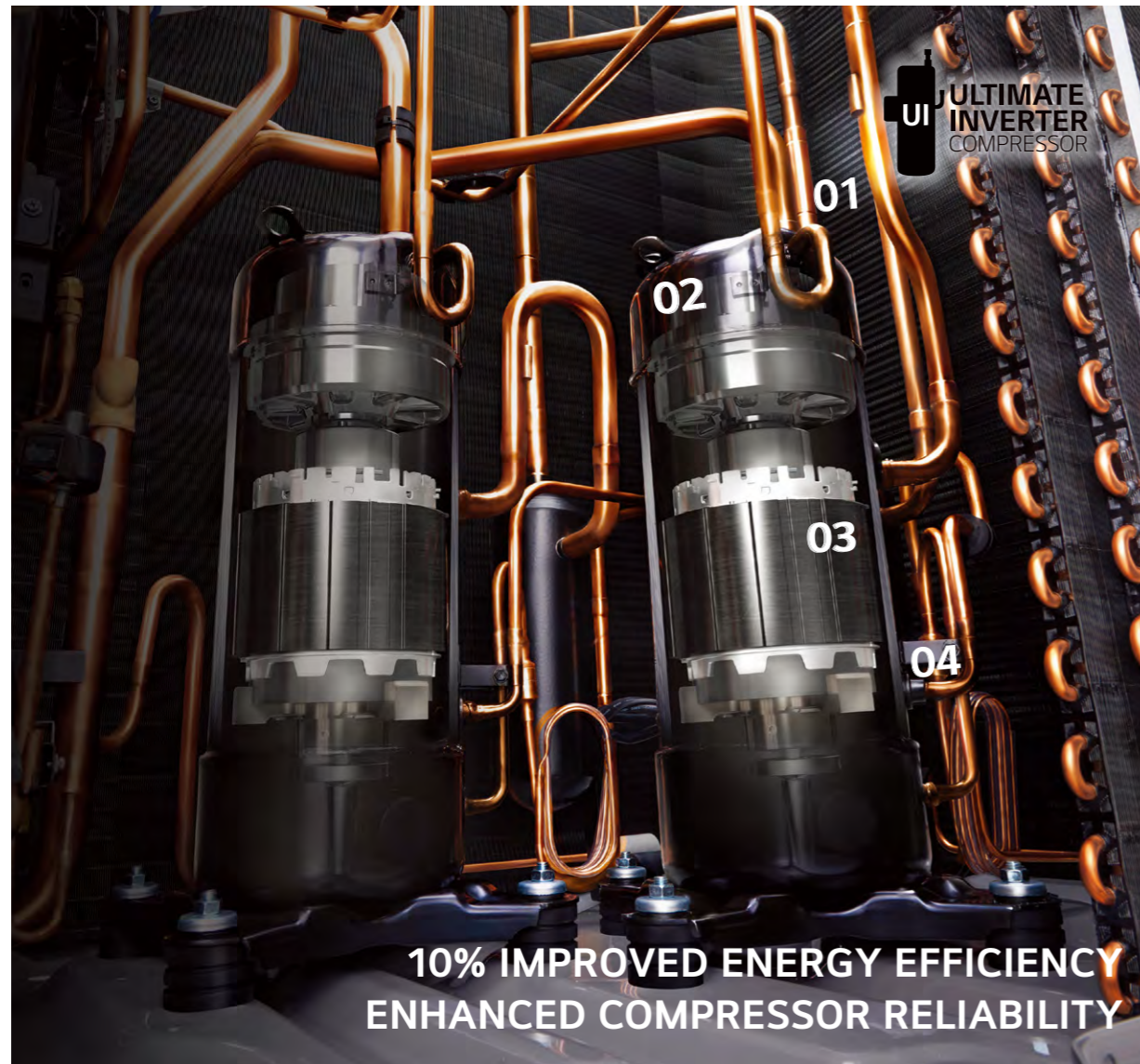
Newly invented system motivated by PEEK (Polyetheretherketone) bearing used for aero engine to increase operation range and durability

03. Wide Operation Range from 30 to 130 Hz

Improved part load efficiency at all operation ranges

04. HiPOR™ (High Pressure Oil Return)

Resolve compressor efficiency loss caused by oil return



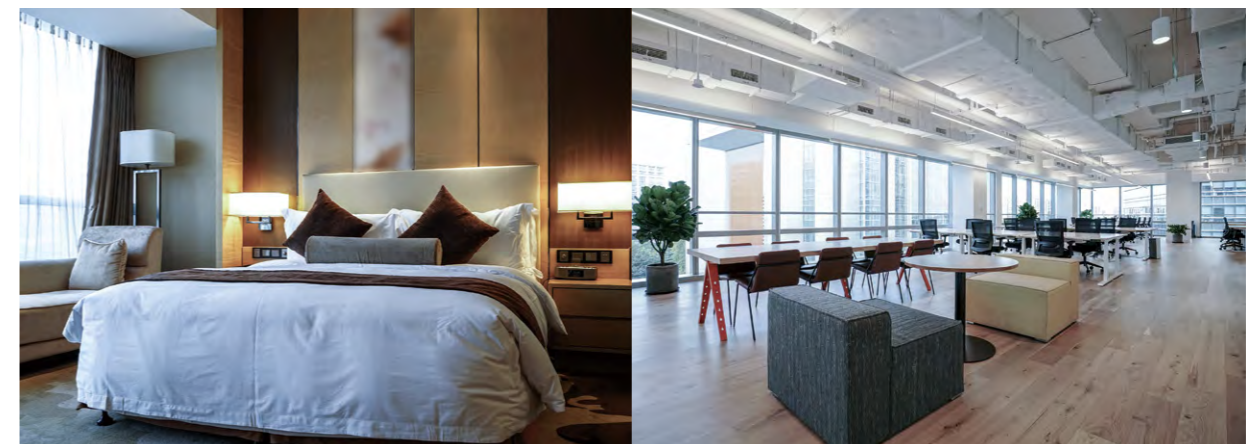
Smart Farm



Small Industry (Process Water)



Hotel / Office

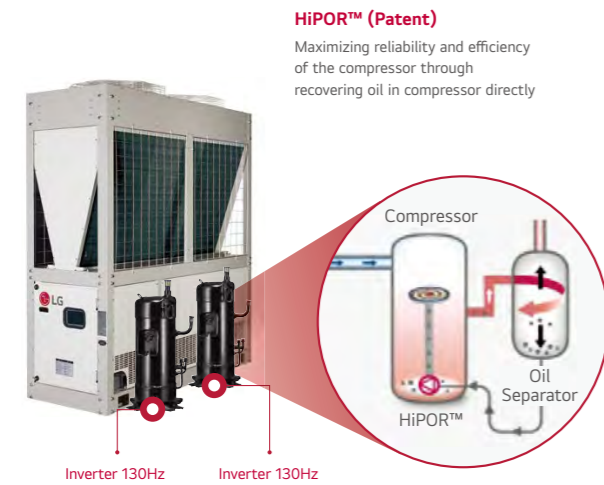


All Inverter Scroll Compressor

All inverter scroll compressor with HiPOR™ (Patent) is applied to improve full load and part load energy efficiency.

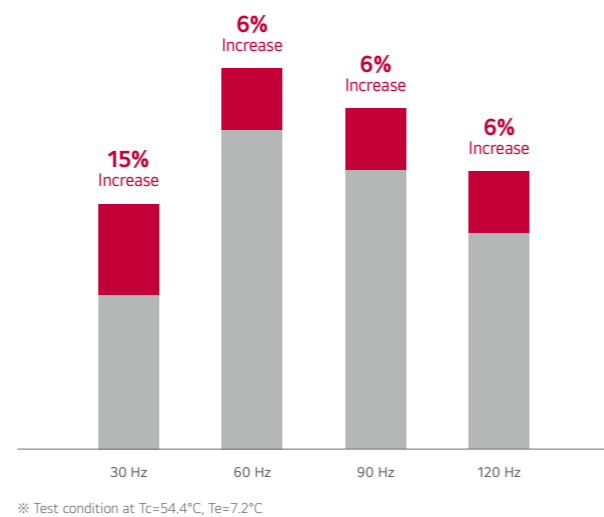
All Inverter System

Wide operation frequency range 30 - 130Hz



Compressor Efficiency

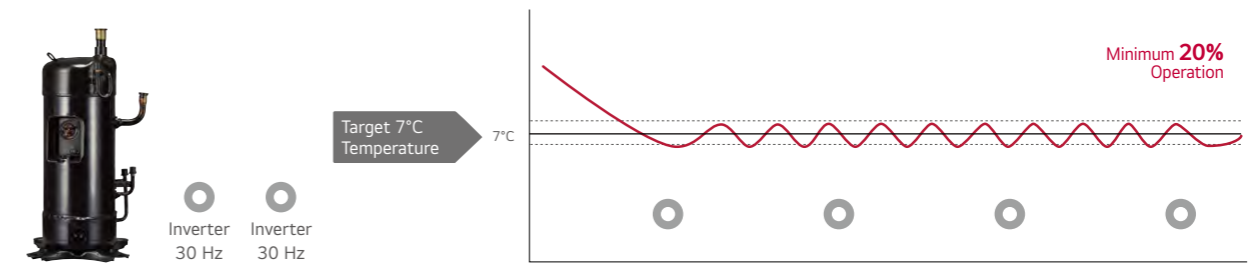
Compressor efficiency by Hz is increased through HiPOR™ application



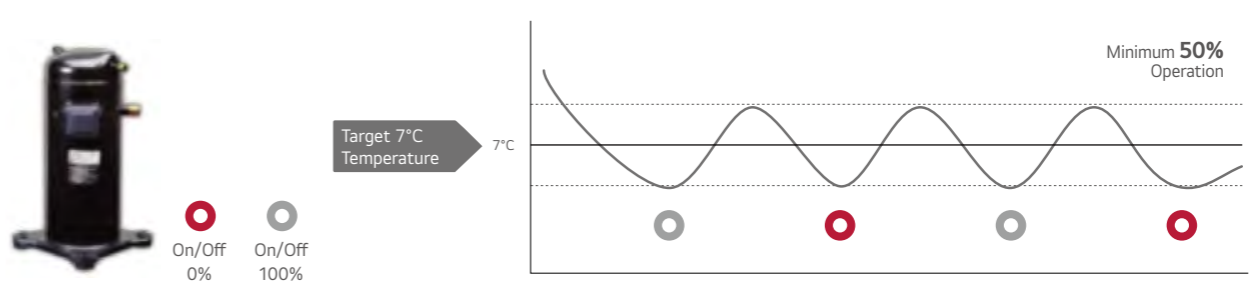
Lower Load Operation

20% part load operation and minimized water outlet temperature haunting with Inverter scroll compressor.

LG Inverter Scroll Compressor



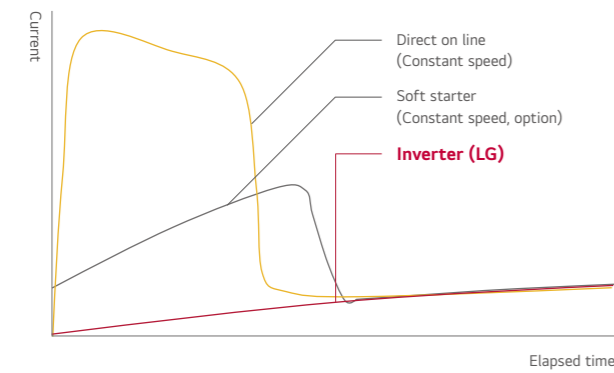
Normal On/Off Multi Compressor System



App. Inverter Comp. vs Constant Speed Comp.

Inverter compressor is more stable and efficient solution than Constant speed compressor.

Comparison of starting type



| Compressor | Starting type | Starting current (Is / FLA*, %) |
|----------------|----------------|---------------------------------|
| Constant speed | Direct on line | About 650% |
| | Soft starter | 200 - 350% |
| Inverter (LG) | Inverter | No inrush current |

* FLA : Full load ampere

Inverter's feature & benefits

When starting

Reduce starting torque below full load torque

➔ **Mechanical wear↓**

Decrease starting current under FLA

➔ **Circuit breaker capacity↓**

When operating

Low electric loss due to high value of the power factor**

➔ **Energy efficient**

Low power input in part load

➔ **High SEER**

Continuously adjust compressor output according to the load (Compressor 15-125Hz)

➔ **Save energy**

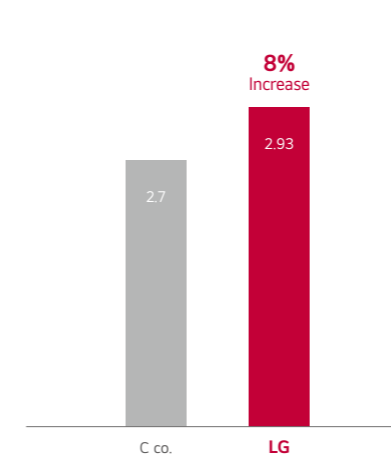
** Power factor : Ratio between active power(kW) and total power(kVA)

High Energy Efficiency

All inverter scroll compressors with Multi V technologies improve energy efficiency.

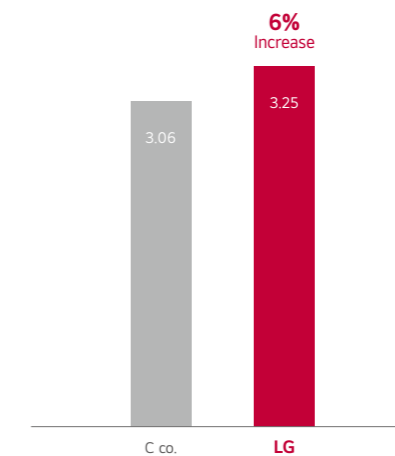
Cooling Performance

EER

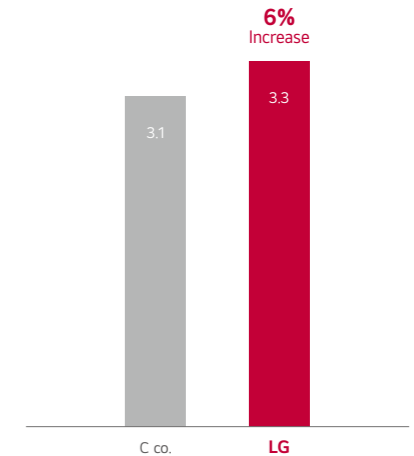


Heating Performance

COP



SCOP

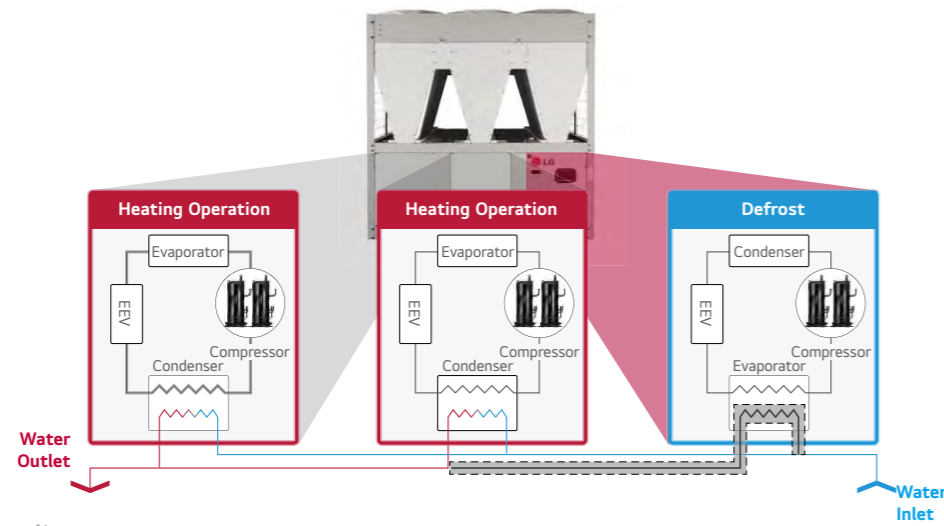


※ 65 kW Heat pump model comparison

Continuous Heating Operation

Continuous heating minimizes the decrease of water outlet temperature during defrosting for multi circuit model.

Multi cycle can defrost each cycle individually to supply hot water continuously multi cycle.

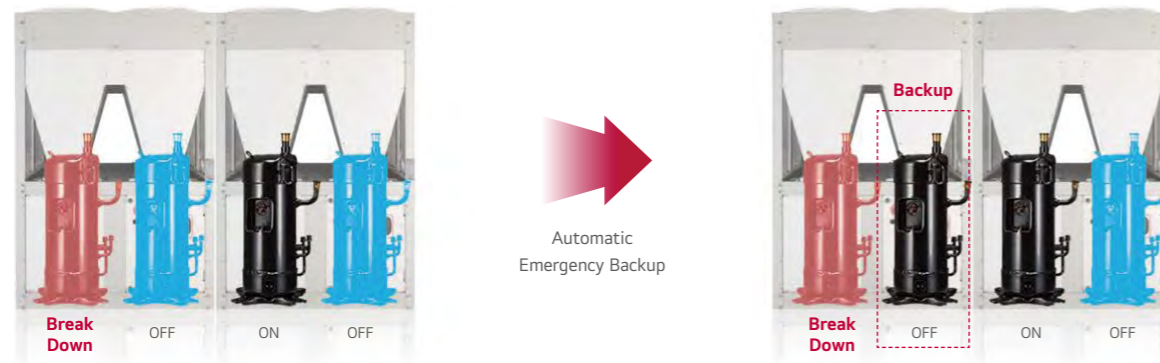


* Applied up to 6 scroll compressors per refrigerator

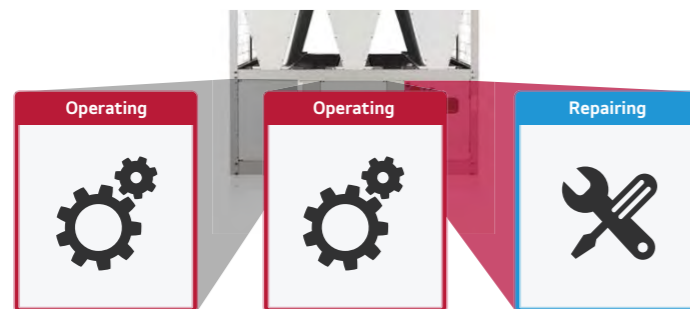
Back Up Operation

If one compressor or one cycle needs to be repaired, backup operation helps the whole system to operate continuously.

All Inverter System



Cycle back up



Corrosion Resistance (Black Fin)

'Black Fin' heat exchanger is highly corrosion resistant, designed to perform in corrosive environments such as contaminated and humid condition.

Black Fin

- Longer lifespan, lower operational costs
- Strengthened corrosion resistant coating

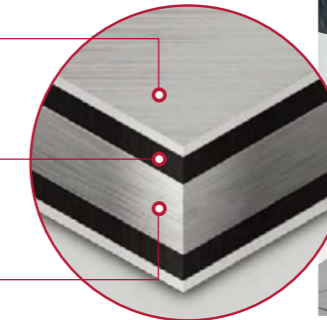
Hydrophilic Coating

The hydrophilic coating minimizes moisture build up on the fin.

Corrosion Resistant Black Coating

The black coating provides strong protection from corrosion.

Aluminum Fin



Black Box Function

Quick service can be done because operation data can be saved for 180 seconds before system failure.

Without Black Box Function

Check many failure causes and error codes in person

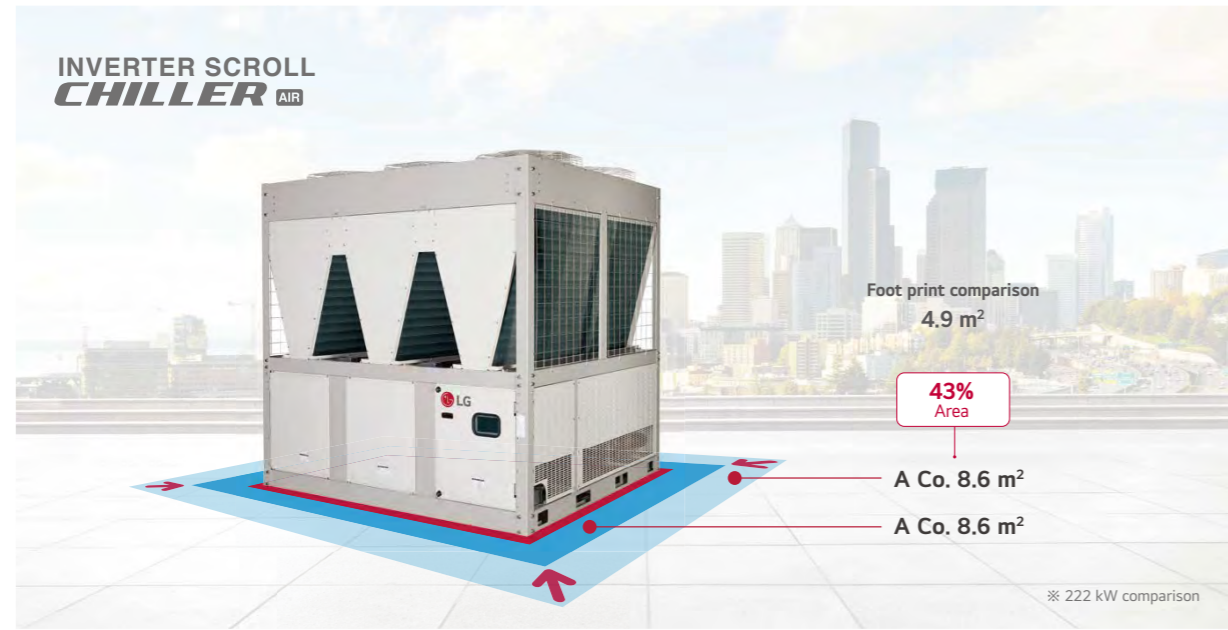
With Black Box Function

Search for the failure cause conveniently using recorded data



Compact Size

Compact size reduces concern about installation and service space.



Low Noise Level

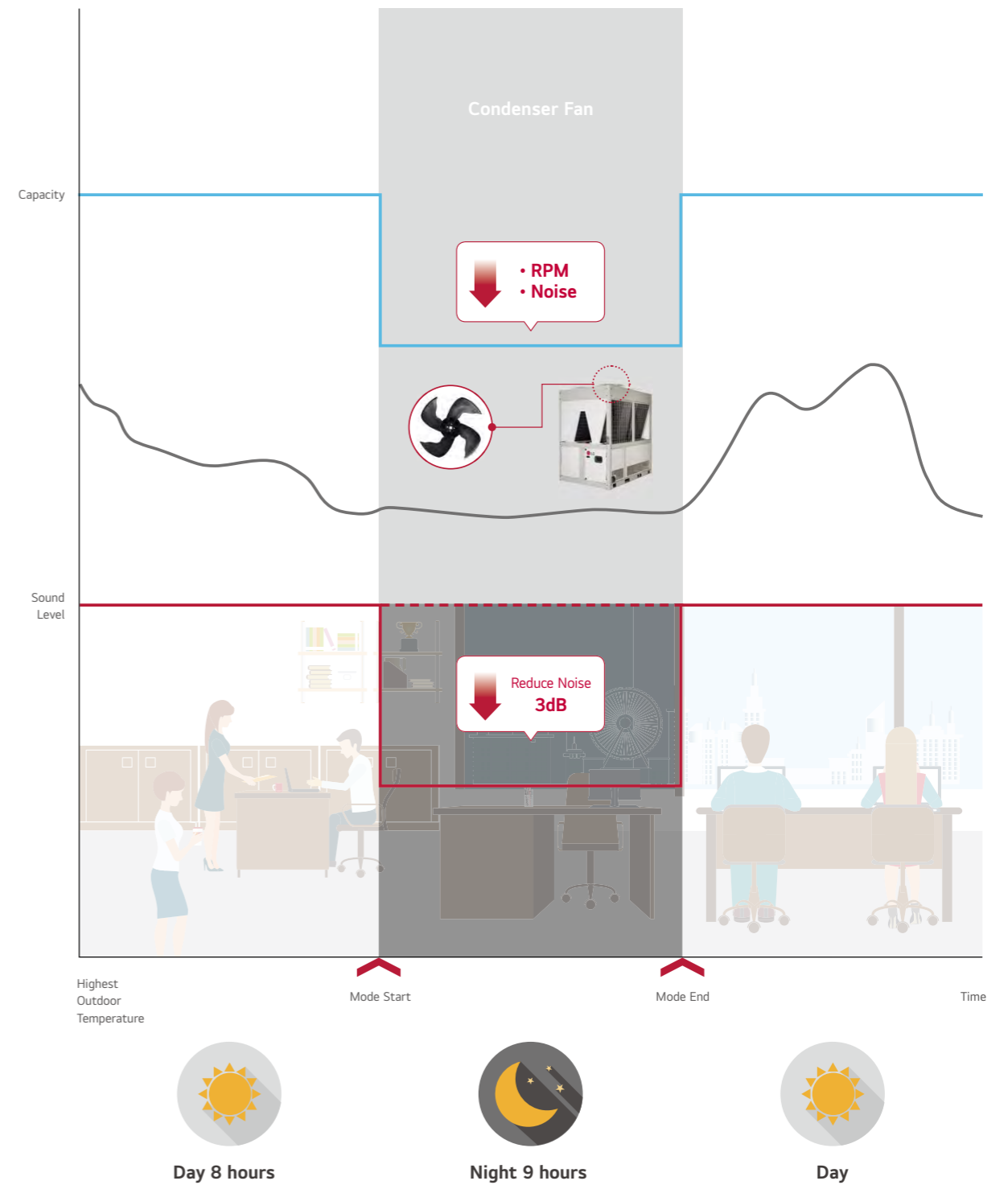
Lower noise can reduce noise pollution and provide a quieter environment.

Noise Comparison



Silent Operation Function (Cooling Mode)

Silent operation function can reduce noise levels at night time by adjusting the fan RPM.



ACHH020LBAB / ACHH023LBAB
ACHH033LBAB / ACHH040LBAB



LG participates in the ECP programme for EUROVENT LCP-HP program. Check ongoing validity of certification : www.eurovent-certification.com

Heat pump model

| INVERTER SCROLL CHILLER | | | ACHH020LBAB | ACHH023LBAB | ACHH033LBAB | ACHH040LBAB |
|-------------------------|--|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | | | H/P | H/P | H/P | H/P |
| Power | Phase,Lines,V | | 3,4,380~415 | 3,4,380~415 | 3,4,380~415 | 3,4,380~415 |
| Capacity | Cooling | kW | 65 | 74 | 114 | 130 |
| | | RT | 18.5 | 21 | 32.4 | 37 |
| | Heating | kW | 70.3 | 82 | 120 | 140.6 |
| | | RT | 20 | 23 | 34 | 40 |
| Input Power | Cooling | kW | 22.2 | 27.4 | 36.8 | 44.4 |
| | Heating | kW | 21.6 | 27.3 | 35.3 | 43.3 |
| Max Operating Current | A | | 39 | 48 | 72 | 78 |
| Efficiency | Cooling | W/W | 2.93 | 2.70 | 3.10 | 2.93 |
| | Heating | W/W | 3.25 | 3.00 | 3.40 | 3.25 |
| SEER | W/W | | 4.40 | 4.20 | 4.50 | 4.40 |
| SCOP | W/W | | 3.30 | 3.30 | 3.30 | 3.30 |
| Sound Pressure* | dBA | | 67 | 68 | 68 | 68 |
| Sound Power | Cooling | dBA | 86 | 87 | 87 | 90 |
| | Heating | dBA | 86 | 87 | 88 | 90 |
| Compressor | Type | - | Scroll | Scroll | Scroll | Scroll |
| | No. of Compressor | EA | 2 | 2 | 4 | 4 |
| | Oil Type | - | PVE | PVE | PVE | PVE |
| | Oil Charge | cc | 1,400 x 2 | 1,400 x 2 | 1,400 x 4 | 1,400 x 4 |
| | Sump Heater | W | 60 x 2 | 60 x 2 | 60 x 4 | 60 x 4 |
| | Type | - | R410A | R410A | R410A | R410A |
| | Amount of Charged | Kg | 7.0 kg x 2 | 7.0 kg x 2 | 7.0 kg x 4 | 7.0 kg x 4 |
| Evaporator | Type | - | plate | plate | plate | plate |
| | Pressure Drop | kPa | 21.5 | 28.7 | 18.7 | 21.5 |
| | Operating Maximum Pressure (Refrigerant / Water) | kg/cm ² | 42/10 | 42/10 | 42/10 | 42/10 |
| | Standard Flow (Cooling / Heating) | LPM | 186/200 | 211/235 | 327/345 | 372/400 |
| | Inlet / Outlet Diameter (Water Pipe) | mm | 50A/50A | 50A/50A | 65A/65A | 65A/65A |
| Fan Motor | Type | - | BLDC | BLDC | BLDC | BLDC |
| | No. of Fan | EA | 2 | 2 | 4 | 4 |
| | No. of Vanes | EA | 4 | 4 | 4 | 4 |
| | Air Flow Rate | CMM | 210 x 2 @1,000 rpm | 210 x 2 @1,000 rpm | 210 x 4 @1,000 rpm | 210 x 4 @1,000 rpm |
| | Motor power | W | 900 x 2 | 900 x 2 | 900 x 4 | 900 x 4 |
| Expansion Unit | - | EEV | EEV | EEV | EEV | |
| Weight | kg | | 520 | 520 | 970 | 970 |
| | mm | | 765 | 765 | 1,528 | 1,528 |
| Dimension | H | mm | 2,293 | 2,293 | 2,293 | 2,293 |
| | D | mm | 2,154 | 2,154 | 2,154 | 2,154 |
| | Footprint | m ² / RT | 0.089 | 0.078 | 0.102 | 0.089 |
| Protection Devices | High / Low Pressure | - | • | • | • | • |
| | Anti Frost | - | • | • | • | • |
| Remote Control | - | Modbus | Modbus | Modbus | Modbus | |
| Power | Power Line | mm ² | 25.0 mm ² x 5C | 25.0 mm ² x 5C | 50.0 mm ² x 5C | 50.0 mm ² x 5C |
| Outlet Temperature | Cooling | °C | 5~20 | 5~20 | 5~20 | 5~20 |
| | Heating | °C | 30~55 | 30~55 | 30~55 | 30~55 |
| Ambient Temperature | Cooling | °C | -15~48 | -15~48 | -15~48 | -15~48 |
| | Heating | °C | -30~35 | -30~35 | -30~35 | -30~35 |
| Earth Leakage Breaker | A | | 75 | 75 | 125 | 125 |

* : Sound Pressure is not a value declared on Eurovent Program.

Notes :

- Due to our policy of innovation some specifications may be changed without prior notification.
- Capacities and Inputs are based on the following conditions
Cooling : Outdoor air temp. 35°C, Water inlet temp. 12°C, Water Outlet temp. 7°C
Heating : Outdoor air temp. 7°C, Water inlet temp. 40°C, Water Outlet temp. 45°C
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured ISO 9614:2009 by sound intensity method. Therefore, these values can be increased owing to ambient conditions during operation.

ACHH045LBAB / ACHH050LBAB
ACHH060LBAB / ACHH067LBAB



LG participates in the ECP programme for EUROVENT LCP-HP program. Check ongoing validity of certification : www.eurovent-certification.com

Heat pump model

| INVERTER SCROLL CHILLER | | | ACHH045LBAB | ACHH050LBAB | ACHH060LBAB | ACHH067LBAB |
|-------------------------|--|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | | | H/P | H/P | H/P | H/P |
| Power | Phase,Lines,V | | 3,4,380~415 | 3,4,380~415 | 3,4,380~415 | 3,4,380~415 |
| Capacity | Cooling | kW | 148 | 171 | 195 | 222 |
| | | RT | 42.1 | 48.6 | 55.4 | 63.1 |
| | Heating | kW | 164 | 180 | 210.9 | 246 |
| | | RT | 47 | 51 | 60 | 70 |
| Input Power | Cooling | kW | 54.8 | 55.2 | 66.6 | 82.2 |
| | Heating | kW | 54.7 | 52.9 | 64.9 | 82 |
| Max Operating Current | A | | 96 | 108 | 117 | 144 |
| Efficiency | Cooling | W/W | 2.70 | 3.10 | 2.93 | 2.70 |
| | Heating | W/W | 3.00 | 3.40 | 3.25 | 3.00 |
| SEER | W/W | | 4.20 | 4.50 | 4.40 | 4.20 |
| SCOP | W/W | | 3.30 | 3.30 | 3.30 | 3.30 |
| Sound Pressure* | dBA | | 68 | 68 | 68 | 68 |
| Sound Power | Cooling | dBA | 91 | 88 | 91 | 92 |
| | Heating | dBA | 91 | 88 | 91 | 92 |
| Compressor | Type | - | Scroll | Scroll | Scroll | Scroll |
| | No. of Compressor | EA | 4 | 6 | 6 | 6 |
| | Oil Type | - | PVE | PVE | PVE | PVE |
| | Oil Charge | cc | 1,400 x 4 | 1,400 x 6 | 1,400 x 6 | 1,400 x 6 |
| | Sump Heater | W | 60 x 4 | 60 x 6 | 60 x 6 | 60 x 6 |
| | Type | - | R410A | R410A | R410A | R410A |
| | Amount of Charged | Kg | 7.0 kg x 4 | 7.0 kg x 6 | 7.0 kg x 6 | 7.0 kg x 6 |
| Evaporator | Type | - | plate | plate | plate | plate |
| | Pressure Drop | kPa | 28.7 | 18.7 | 21.5 | 28.7 |
| | Operating Maximum Pressure (Refrigerant / Water) | kg/cm ² | 42/10 | 42/10 | 42/10 | 42/10 |
| | Standard Flow (Cooling / Heating) | LPM | 411/470 | 490/518 | 558/600 | 633/705 |
| | Inlet / Outlet Diameter (Water Pipe) | mm | 65A/65A | 65A/65A | 65A/65A | 65A/65A |
| Fan Motor | Type | - | BLDC | BLDC | BLDC | BLDC |
| | No. of Fan | EA | 4 | 6 | 6 | 6 |
| | No. of Vanes | EA | 4 | 4 | 4 | 4 |
| | Air Flow Rate | CMM | 210 x 4 @1,000 rpm | 210 x 6 @1,000 rpm | 210 x 6 @1,000 rpm | 210 x 6 @1,000 rpm |
| | Motor Power | W | 900 x 4 | 900 x 6 | 900 x 6 | 900 x 6 |
| Expansion Unit | - | EEV | EEV | EEV | EEV | |
| Weight | kg | | 970 | 1,430 | 1,430 | 1,430 |
| | mm | | 1,528 | 2,291 | 2,291 | 2,291 |
| Dimension | H | mm | 2,293 | 2,293 | 2,293 | 2,293 |
| | D | mm | 2,154 | 2,154 | 2,154 | 2,154 |
| | Footprint | m ² / RT | 0.078 | 0.101 | 0.089 | 0.078 |
| Protection Devices | High / Low Pressure | - | • | • | • | • |
| | Anti Frost | - | • | • | • | • |
| Remote Control | - | Modbus | Modbus | Modbus | Modbus | |
| Power | Power Line | mm ² | 50.0 mm ² x 5C | 95.0 mm ² x 5C | 95.0 mm ² x 5C | 95.0 mm ² x 5C |
| Outlet Temperature | Cooling | °C | 5~20 | 5~20 | 5~20 | 5~20 |
| | Heating | °C | 30~55 | 30~55 | 30~55 | 30~55 |
| Ambient Temperature | Cooling | °C | -15~48 | -15~48 | -15~48 | -15~48 |
| | Heating | °C | -30~35 | -30~35 | -30~35 | -30~35 |
| Earth Leakage Breaker | A | | 125 | 200 | 200 | 200 |

* : Sound Pressure is not a value declared on Eurovent Program.

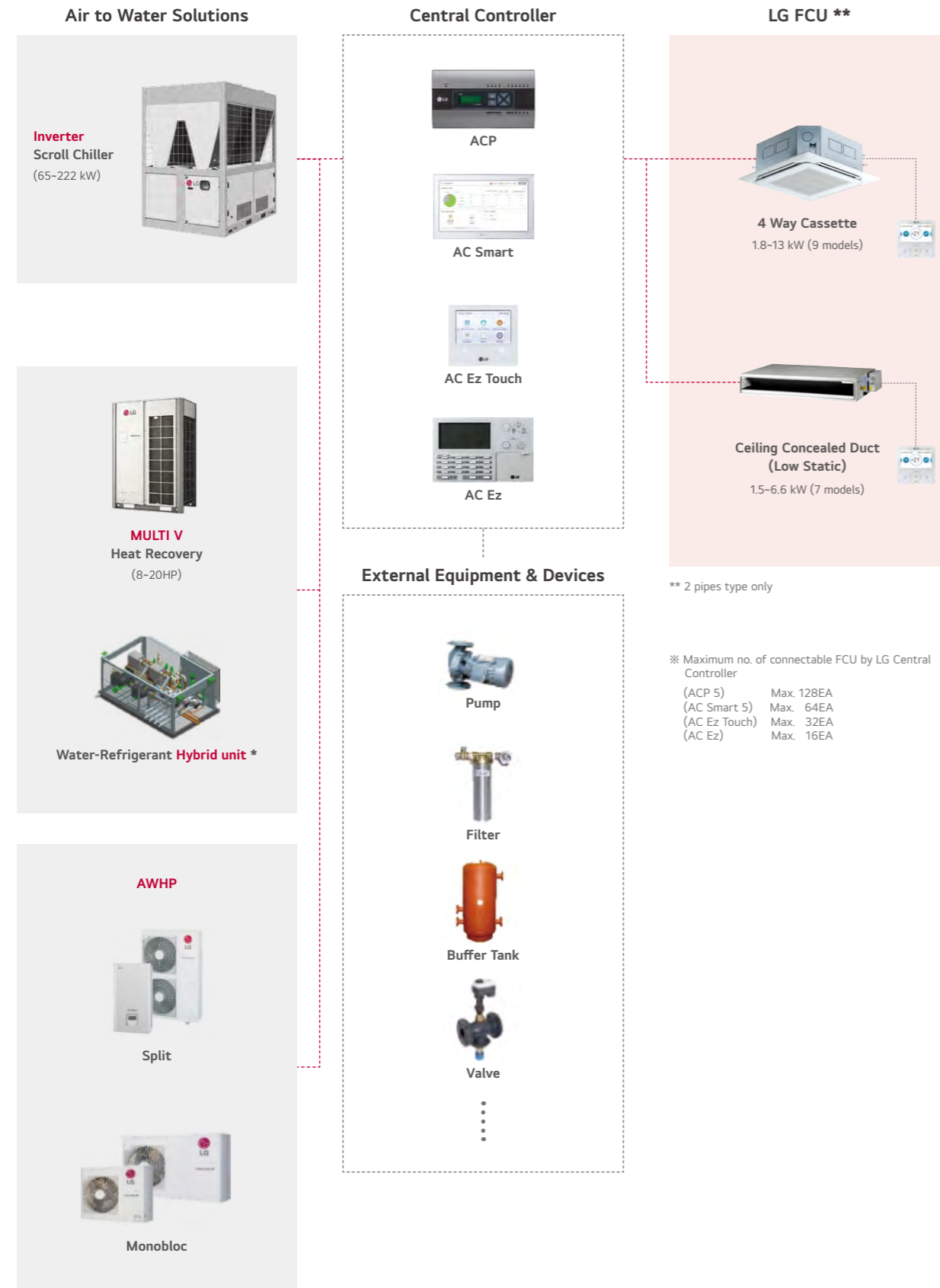
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Cooling : Outdoor air temp. 35°C, Water inlet temp. 12°C, Water Outlet temp. 7°C
Heating : Outdoor air temp. 7°C, Water inlet temp. 40°C, Water Outlet temp. 45°C
- Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured ISO 9614:2009 by sound intensity method. Therefore, these values can be increased owing to ambient conditions during operation.



Fan Coil Unit

FCU can be applied to various solutions using water. It allows not only to control equipment individually by using the remote controller, but also apply integrated control including control of some external equipment and devices through the central controller.

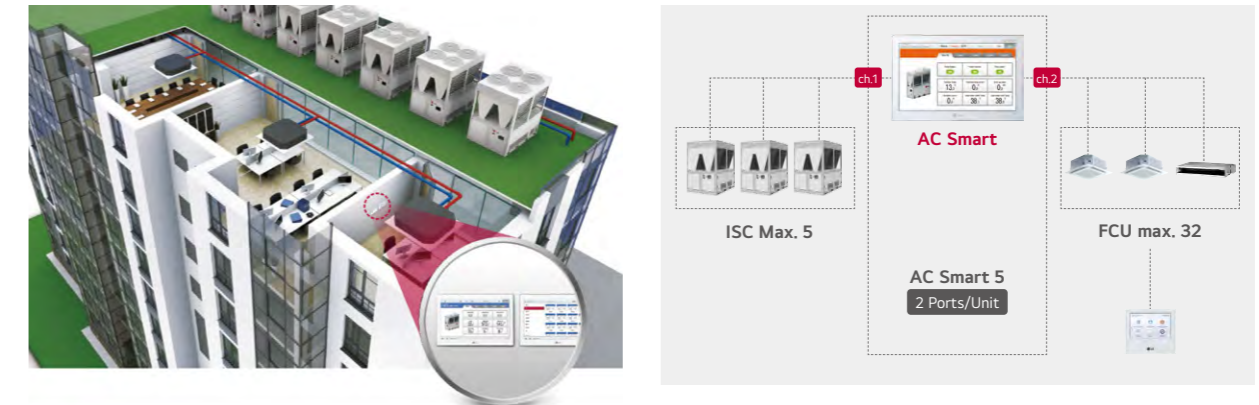


Interlocking Control

It allows Interlocking control between FCU and Inverter Scroll Chiller (ISC) by using LG central controller such as ACP, ACS. When FCU is being turned on/off, ISC turns on/off automatically by LG central controller.

What are the benefits?

The Total Cost (Equipment + installation + BMS) is greatly reduced. It eliminated the hassle of turning on the ISC first.

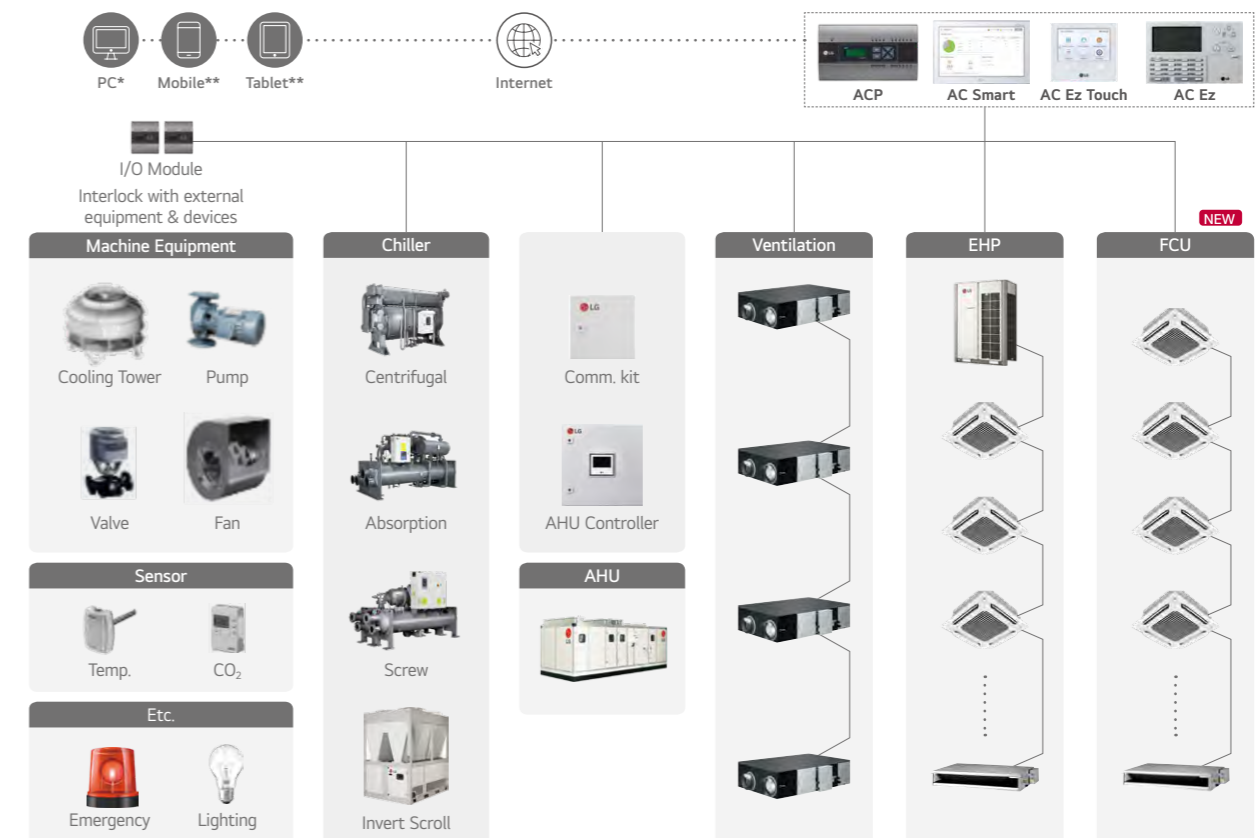


Central Controller

LG's central controller allows control of various external equipment and devices in addition to LG's equipment. (FCU, Chiller, EHP, etc.)

What are the benefits?

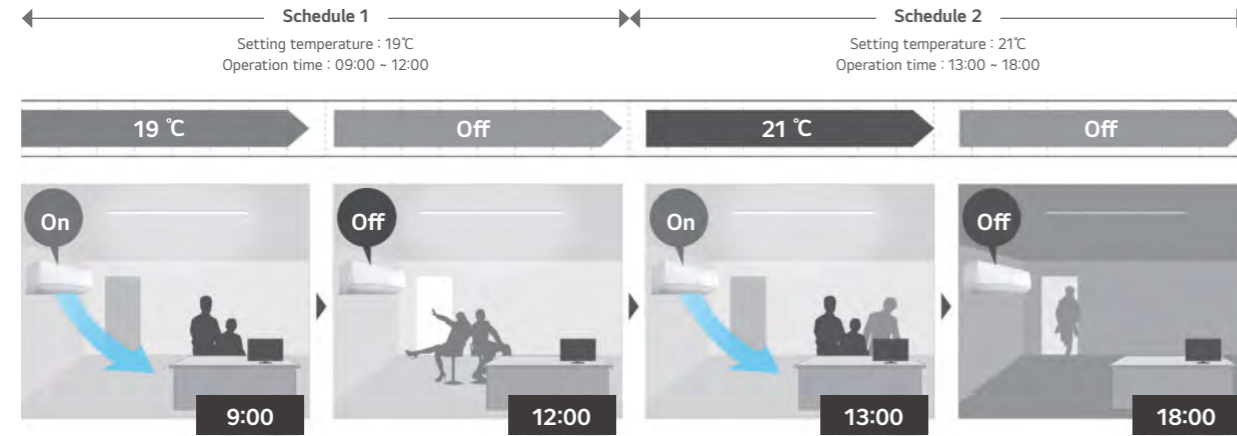
Integrated control of the system can be realized conveniently through the LG central controller. (FCU + Chiller + EHP + ... + External Equipment & Devices)



* Unable to link AC Ez ** Unable to link AC Ez, AC Ez Touch

Scheduled Operation

You can set 2 schedules for one day, and up to 14 schedules for a week.



※ This function is for wired remote controller only.
 ※ Wired remote controller is need to be separately purchased.

Group Control with One Remote Controller

Up to 16 FCU's can be controlled with one wired remote controller. It can reduce installation costs and keep the wall interior clean.



※ If you set up to 'Installation Setting' > Group Control 'Enabled' in your Wired Remote Controller, you can use many more functions.

Easy Control (Simple Test Run via LGMV)

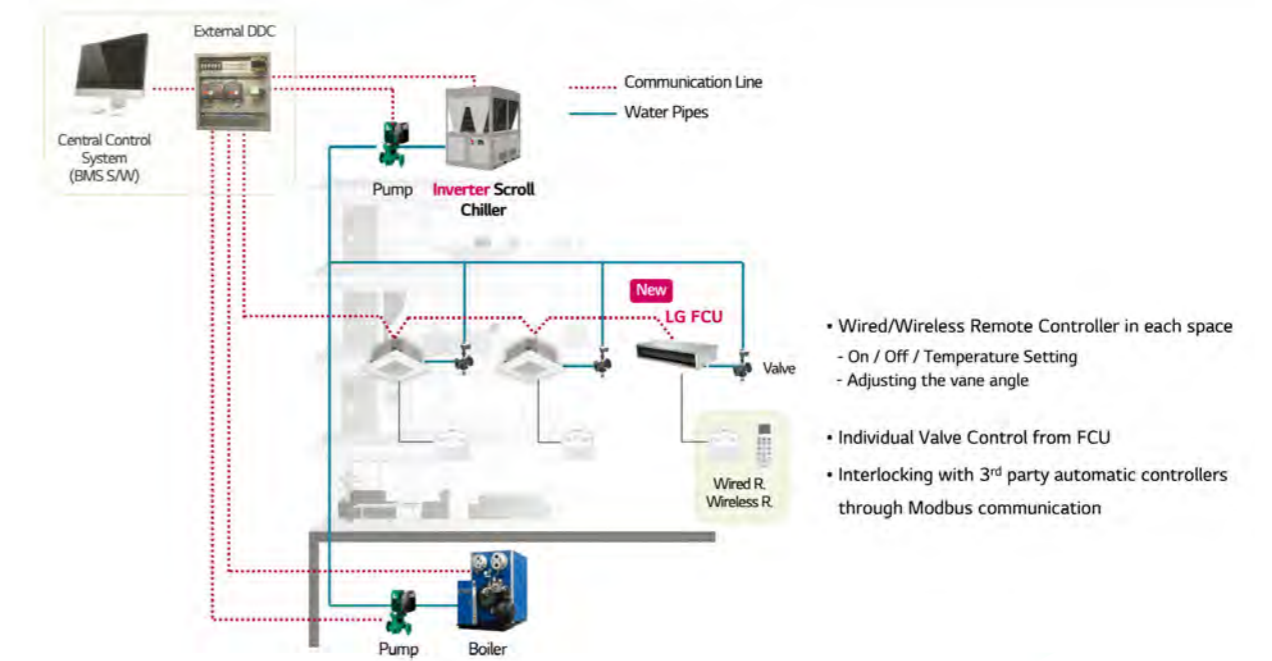
LGMV (Monitoring View) helps engineers to inspect and monitor LG's air conditioning unit easily.



※ Search "Mobile LGMV" on Google market or App store then download the app.
 ※ Wi-Fi modem (PWFMD200) is required by option.

Individual Control & External Central Control

It allows not only to control each room by using the remote controller, but also apply integrated control through a 3rd party central controller.

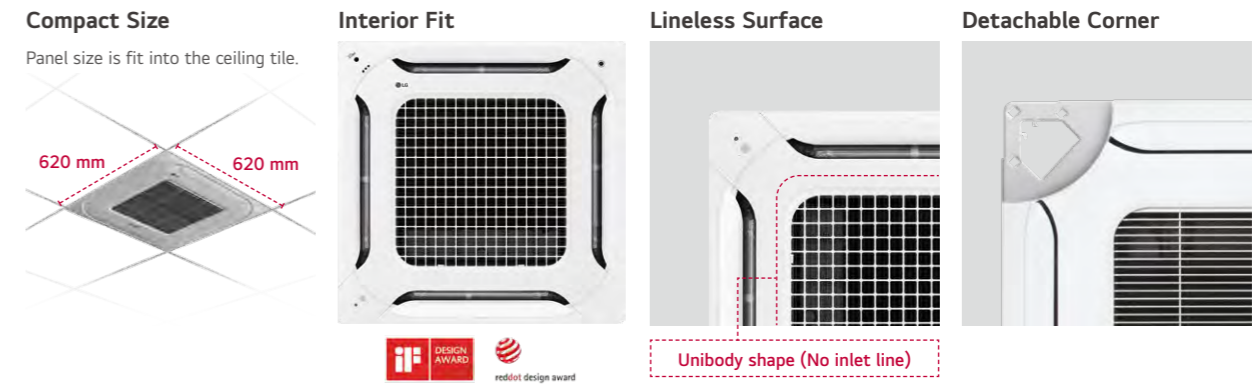


- Wired/Wireless Remote Controller in each space
 - On / Off / Temperature Setting
 - Adjusting the vane angle
- Individual Valve Control from FCU
- Interlocking with 3rd party automatic controllers through Modbus communication



Stylish Design Panel (U-style 4 Way cassette)

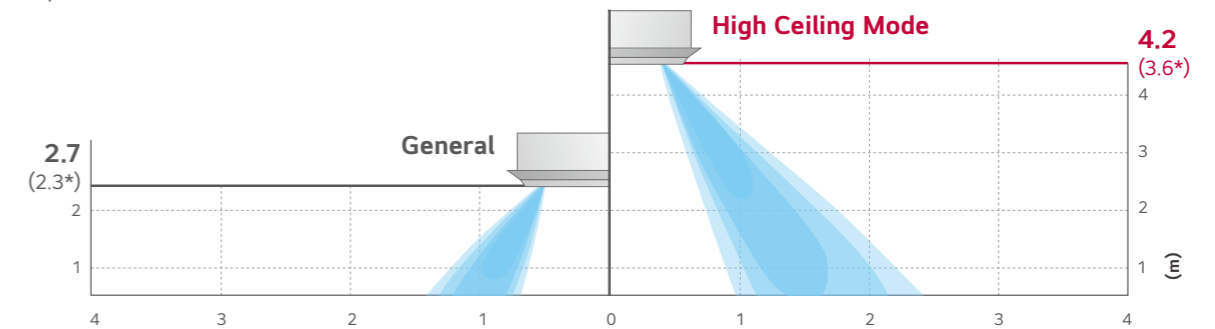
New 4 Way cassette panel adapted a unibody shape and fits into the ceiling cell size.



※ U-Style panel corresponds to the PT-QAGW0 panel for WF4A018 / 027 / 032 / 041CG0A models.

High Ceiling Mode

Airflow in a space with a 4.2 m ceiling height is possible with this indoor unit. Furthermore, air flow can be strengthened by adjusting the fan speed.



* For models less than 9.0 kW.

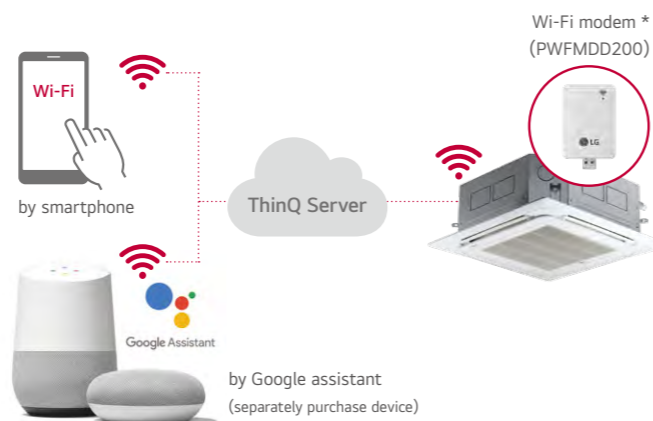
Wi-Fi Remote Control

Control your air conditioners using the smart devices as Android or iOS based smartphones and voice commands via Google assistant.



Access your air conditioner anytime and from anywhere

Operation under the revised weather conditions before changing conditions impact indoor comfort.



Simple operation for various functions

- On / Off **
- Mode Selection **
- Current Temperature **
- Set Temperature **
- Set Fan Speed **
- Vane Control
- Reservation
- Energy Monitoring
- Filter Management
- Smart Diagnosis

※ Search "ThinQ" on Google market or App store then download the app.
* Wi-Fi modem (PWFMD200) is required by option.

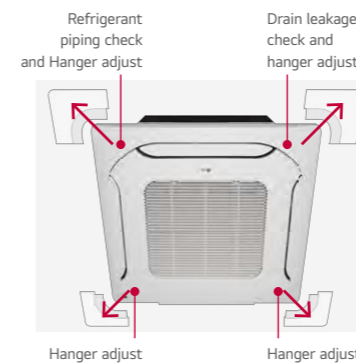
** This functions are used by Google assistant & Amazon Alexa
※ In some countries, the use of the Google assistant & Amazon Alexa system may be restricted.

※ For our policy of continuous ThinQ App improvement, specification, design and features are subject to change without prior notice.

Convenient Panel Installation

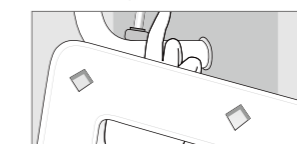
The detachable corner design makes it easy to adjust the hanger during installation and helps to easily check leakages in the drain connection pipe. Moreover, button type holder design makes it is easy to install the panel to the body.

Detachable Corner Design

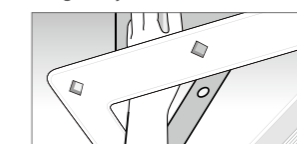


※ The detachable corner design is only applicable to the U-Style panel.

Drain Leakage Check



Hanger Adjust



One Push Panel



WF4A018CG0A / WF4A027CG0A
WF4A032CG0A / WF4A041CG0A
WF4A060CG0A



| INDOOR | | | WF4A018CG0A | WF4A027CG0A | WF4A032CG0A | WF4A041CG0A | WF4A060CG0A |
|---|-------------------------------|-------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Power Supply | Ø, V, Hz | | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 |
| Running Current by Voltage | A | | 0.37-0.37-0.37 | 0.38-0.38-0.38 | 0.40-0.40-0.40 | 0.35-0.42-0.42 | 0.62-0.69-0.69 |
| Capacity | Cooling | Condition A | 1.8 (1,548) | 2.7 (2,322) | 3.2 (2,752) | 4.1 (3,525) | 6.0 (5,159) |
| | | Condition B | 1.2 (1,032) | 1.8 (1,548) | 2.2 (1,892) | 2.8 (2,408) | 4.0 (3,439) |
| | | Condition C | 1.5 (1,290) | 2.3 (1,978) | 2.8 (2,408) | 3.6 (3,095) | 4.9 (4,213) |
| | | Condition D | 0.7 (602) | 1.2 (1,032) | 1.4 (1,204) | 1.8 (1,548) | 2.5 (2,150) |
| | Heating | Condition A | 1.9 (1,634) | 2.7 (2,322) | 3.3 (2,837) | 4.5 (3,869) | 7.2 (6,191) |
| | | Condition B | 2.2 (1,892) | 3.1 (2,666) | 3.9 (3,353) | 5.4 (4,643) | 8.5 (7,309) |
| Water Flow Rate | Cooling | Condition A | 5.7 | 8.2 | 10.0 | 13.5 | 19.0 |
| | | Condition B | 4.6 | 6.6 | 8.0 | 10.8 | 14.4 |
| | | Condition C | 5.7 | 8.2 | 10.0 | 13.5 | 19.0 |
| | | Condition D | 3.4 | 4.9 | 6.0 | 8.1 | 12.1 |
| | Heating | Condition A | 6.1 | 8.6 | 10.0 | 13.5 | 22.5 |
| | | Condition B | 5.7 | 8.2 | 10.0 | 13.5 | 19.0 |
| Head Loss | Cooling | Condition A | 21.5 | 32.0 | 47.7 | 43.7 | 38.2 |
| | | Condition B | 13.7 | 20.3 | 30.3 | 27.8 | 23.6 |
| | | Condition C | 21.5 | 32.0 | 47.7 | 43.7 | 38.2 |
| | | Condition D | 8.1 | 12.0 | 17.9 | 16.4 | 17.0 |
| | Heating | Condition A | 30.3 | 40.7 | 53.8 | 56.5 | 57.2 |
| | | Condition B | 26.2 | 36.5 | 53.8 | 56.5 | 42.1 |
| Power Input | Nominal | W | 12 | 15 | 20 | 43 | 73 |
| Running Current | Nominal | A | 0.37 | 0.38 | 0.40 | 0.42 | 0.69 |
| Fan | Type | - | Turbo Fan | Turbo Fan | Turbo Fan | Turbo Fan | Turbo Fan |
| | Air Flow Rate (H / M / L) | m³/min | 6.5 / 5.5 / 5.0 | 7.0 / 6.5 / 6.0 | 8.5 / 8.0 / 7.0 | 12.0 / 10.0 / 8.0 | 19.0 / 17.0 / 15.0 |
| Fan Motor | Type | - | BLDC | BLDC | BLDC | BLDC | BLDC |
| | Drive | - | CCW | CCW | CCW | CCW | CCW |
| | Output | W x No. | 30 x 1 | 30 x 1 | 30 x 1 | 43 x 1 | 40 x 1 |
| | FLA (Full Load Ampere) | A | 0.37 | 0.38 | 0.40 | 0.42 | 0.69 |
| Dimensions | Net (W x H x D) | mm | 570 x 214 x 570 | 570 x 214 x 570 | 570 x 214 x 570 | 570 x 256 x 570 | 840 x 204 x 840 |
| Weight | Net | kg | 12.9 | 12.9 | 12.9 | 14.0 | 20.8 |
| | Shipping | kg | 15.7 | 15.7 | 15.7 | 16.3 | 24.9 |
| Air Filter | Type | - | - | - | - | - | - |
| Temperature Control | - | - | Microprocessor, Thermostat for cooling and heating | | | | |
| Sound Absorbing / Thermal Insulation Material | - | - | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene |
| Protection Device | - | - | Fuse | Fuse | Fuse | Fuse | Fuse |
| Water Connecting Pipes | Inlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| | Outlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| Sound Pressure Level | Cooling (H / M / L) | dB(A) | 35 / 34 / 33 | 38 / 37 / 35 | 43 / 40 / 38 | 48 / 43 / 38 | 48 / 46 / 42 |
| | Heating (H / M / L) | dB(A) | 35 / 34 / 33 | 38 / 37 / 35 | 43 / 40 / 38 | 48 / 43 / 38 | 48 / 46 / 42 |
| Sound Power Level | Cooling (H / M / L) | dB(A) | 40 / 39 / 38 | 44 / 42 / 40 | 50 / 46 / 44 | 56 / 50 / 45 | 55 / 53 / 49 |
| | Heating (H / M / L) | dB(A) | 40 / 39 / 38 | 44 / 42 / 40 | 50 / 46 / 44 | 56 / 50 / 45 | 55 / 53 / 49 |
| Connecting Cable | Communication Cable (VCTF-SB) | mm² x cores | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 |
| Decoration Panel #1 (Accessory) | Name | - | PT-QAGW0 | PT-QAGW0 | PT-QAGW0 | PT-QAGW0 | PT-UMC1/PT-MCHW0 |
| | Dimensions (W x H x D) | mm | 620 x 34 x 620 | 620 x 34 x 620 | 620 x 34 x 620 | 620 x 34 x 620 | 950 x 35 x 950 |
| | Color | - | Morning fog | Morning fog | Morning fog | Morning fog | Morning fog |
| | RAL Code | - | 120-4 | 120-4 | 120-4 | 120-4 | 120-4 |
| Decoration Panel #2 (Accessory) | Name | - | - | - | - | - | - |
| | Dimensions (W x H x D) | mm | - | - | - | - | - |
| | Color | - | - | - | - | - | - |
| | RAL Code | - | - | - | - | - | |

WF4A072CG0A / WF4A090CG0A
WF4A105CG0A / WF4A130CG0A



| INDOOR | | | WF4A072CG0A | WF4A090CG0A | WF4A105CG0A | WF4A130CG0A |
|---|-------------------------------|-------------|--|-----------------------|-----------------------|-----------------------|
| Power Supply | Ø, V, Hz | | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 | 1, 220-230-240, 50/60 |
| Running Current by Voltage | A | | 0.75-0.88-0.88 | 0.89-0.89-0.89 | 1.4-1.39-1.39 | 1.7-1.88-1.88 |
| Capacity | Cooling | Condition A | 7.2 (6,191) | 9.0 (7,739) | 10.5 (9,028) | 13.0 (11,178) |
| | | Condition B | 4.8 (4,127) | 6.0 (5,159) | 7.0 (6,019) | 8.7 (7,481) |
| | | Condition C | 5.8 (4,987) | 7.3 (6,277) | 8.5 (7,309) | 10.5 (9,028) |
| | | Condition D | 2.9 (2,494) | 3.7 (3,181) | 4.3 (3,697) | 5.3 (4,557) |
| | Heating | Condition A | 7.9 (6,793) | 9.7 (8,340) | 11.1 (9,544) | 13.3 (11,436) |
| | | Condition B | 9.3 (7,997) | 11.5 (9,888) | 13.4 (11,522) | 15.7 (13,500) |
| Water Flow Rate | Cooling | Condition A | 21.0 | 28.0 | 33.0 | 37.8 |
| | | Condition B | 15.9 | 21.2 | 25.0 | 28.6 |
| | | Condition C | 21.0 | 28.0 | 33.0 | 37.8 |
| | | Condition D | 13.4 | 17.8 | 21.0 | 24.1 |
| | Heating | Condition A | 24.5 | 28.0 | 33.0 | 39.1 |
| | | Condition B | 21.0 | 28.0 | 33.0 | 37.8 |
| Head Loss | Cooling | Condition A | 45.9 | 56.3 | 80.4 | 68.2 |
| | | Condition B | 28.4 | 31.5 | 44.0 | 38.9 |
| | | Condition C | 45.9 | 56.3 | 80.4 | 68.2 |
| | | Condition D | 20.4 | 23.5 | 31.3 | 26.4 |
| | Heating | Condition A | 67.6 | 48.9 | 68.3 | 71.7 |
| | | Condition B | 49.6 | 48.9 | 68.3 | 68.3 |
| Power Input | Nominal | W | 93 | 103 | 167 | 246 |
| Running Current | Nominal | A | 0.88 | 0.89 | 1.39 | 1.88 |
| Fan | Type | - | Turbo Fan | Turbo Fan | Turbo Fan | Turbo Fan |
| | Air Flow Rate (H / M / L) | m³/min | 21.0 / 19.0 / 17.0 | 25.0 / 21.0 / 19.0 | 31.0 / 28.0 / 25.0 | 41.0 / 36.0 / 30.0 |
| Fan Motor | Type | - | BLDC | BLDC | BLDC | BLDC |
| | Drive | - | CCW | CCW | CCW | CCW |
| | Output | W x No. | 40 x 1 | 156 x 1 | 156 x 1 | 136 x 1 |
| | FLA (Full Load Ampere) | A | 0.88 | 0.89 | 1.39 | 1.88 |
| Dimensions | Net (W x H x D) | mm | 840 x 204 x 840 | 840 x 246 x 840 | 840 x 246 x 840 | 840 x 288 x 840 |
| Weight | Net | kg | 20.8 | 23.2 | 23.2 | 25.1 |
| | Shipping | kg | 24.9 | 27.5 | 27.5 | 29.7 |
| Air Filter | Type | - | - | - | - | - |
| Temperature Control | - | - | Microprocessor, Thermostat for cooling and heating | | | |
| Sound Absorbing / Thermal Insulation Material | - | - | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene |
| Protection Device | - | - | Fuse | Fuse | Fuse | Fuse |
| Water Connecting Pipes | Inlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| | Outlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| Sound Pressure Level | Cooling (H / M / L) | dB(A) | 51 / 48 / 46 | 51 / 47 / 43 | 55 / 53 / 51 | 57 / 53 / 50 |
| | Heating (H / M / L) | dB(A) | 51 / 48 / 46 | 51 / 47 / 43 | 55 / 53 / 51 | 57 / 53 / 50 |
| Sound Power Level | Cooling (H / M / L) | dB(A) | 57 / 55 / 52 | 59 / 54 / 51 | 63 / 61 / 58 | 65 / 61 / 57 |
| | Heating (H / M / L) | dB(A) | 57 / 55 / 52 | 59 / 54 / 51 | 63 / 61 / 58 | 65 / 61 / 57 |
| Connecting Cable | Communication Cable (VCTF-SB) | mm² x cores | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 |
| Decoration Panel #1 (Accessory) | Name | - | PT-UMC1/PT-MCHW0 | PT-UMC1/PT-MCHW0 | PT-UMC1/PT-MCHW0 | PT-UMC1/PT-MCHW0 |
| | Dimensions (W x H x D) | mm | 950 x 35 x 950 | 950 x 35 x 950 | 950 x 35 x 950 | 950 x 35 x 950 |
| | Color | - | Morning fog | Morning fog | Morning fog | Morning fog |
| | RAL Code | - | 120-4 | 120-4 | 120-4 | 120-4 |
| Decoration Panel #2 (Accessory) | Name | - | - | - | - | - |
| | Dimensions (W x H x D) | mm | - | - | - | - |
| | Color | - | - | - | - | - |
| | RAL Code | - | - | - | - | |



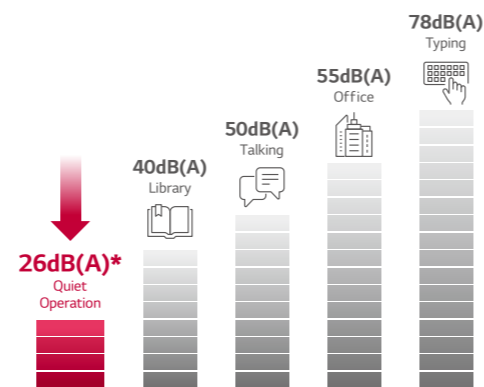
Quiet Operation

The noise level of Low EPS Ducts does not interfere with conversation at all.

Unit : dB(A)

| Model | Sound Pressure (High / Medium / Low) |
|------------|--------------------------------------|
| WFA012RG0A | 31 / 30 / 29 |
| WFA018RG0A | 33 / 32 / 31 |
| WFA025RG0A | 31 / 30 / 29 |
| WFA032RG0A | 33 / 32 / 31 |
| WFA039RG0A | 28 / 27 / 26 |
| WFA055RG0A | 31 / 28 / 26 |
| WFA066RG0A | 38 / 34 / 31 |

* Test condition Temperature : (Cooling) 27°C DB / 19°C WB, 35°C DB / 24°C WB
 * Based on Low speed of WFA039RG0A, WFA055RG0A model
 * Sound level may vary depending on the place or surrounding conditions in which the equipment is installed.

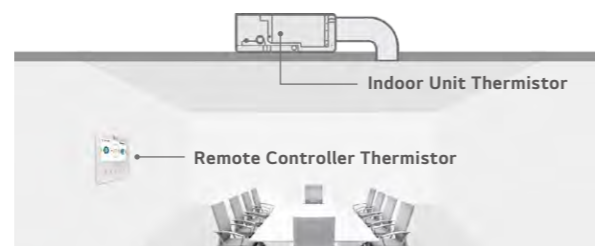


Two Thermistors Control

The indoor temperature can be checked using the thermistors in the remote controller as well as from the indoor unit. Two thermistors can check the optimal indoor air temperature for a more comfortable environment.

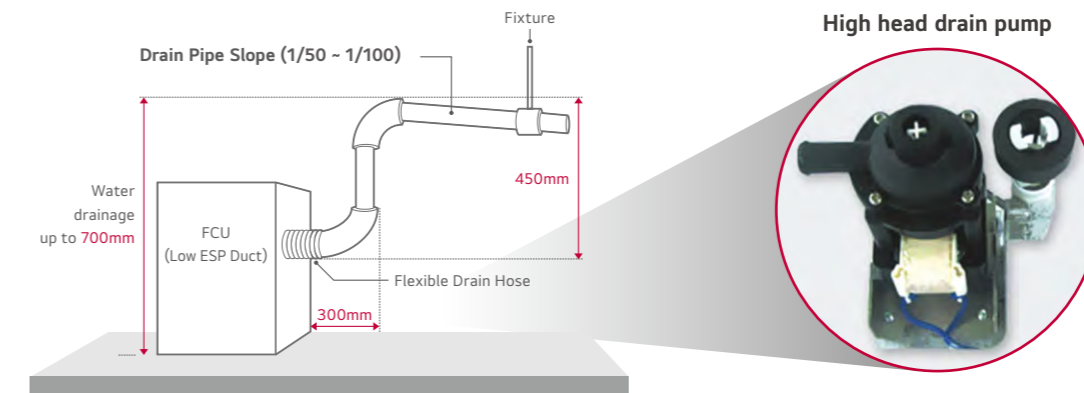
Compares temperatures sensed from different positions, and automatically selects the optimal temperature for users.

※ Need to connect the wired remote controller.



High Head Drain Pump

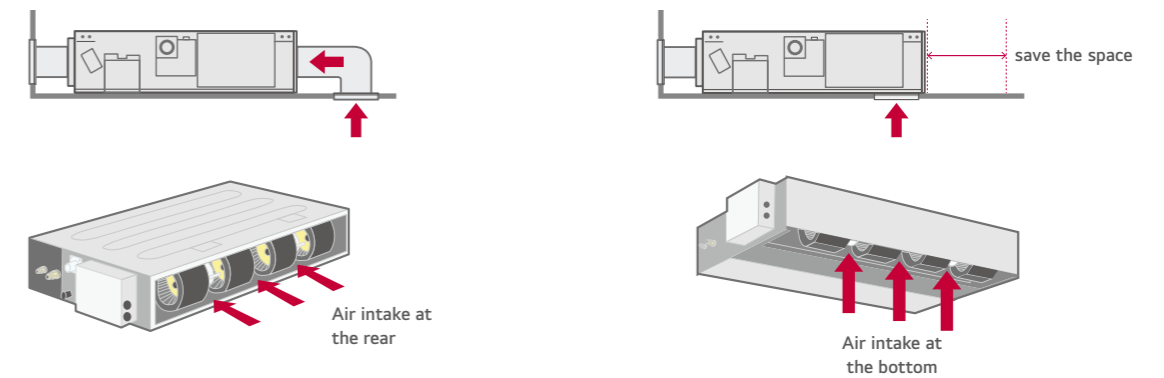
High head drain pump automatically drains water up to a height of 700mm of drain-head height.



※ All of LG's FCU's have a high head drain pump built in.

Flexible Installation

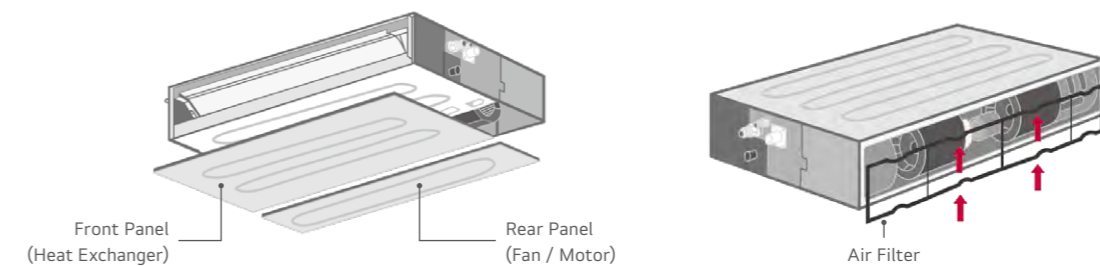
LG's Low ESP Duct FCU allows air intake from the rear or the bottom sides according to requirements.



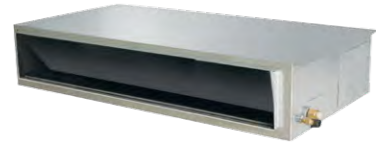
Various way for air intake

Easy Service & Maintenance

Service engineers don't need to open the whole panel for maintenance, since the panel is divided into 2 components; one for heat exchanger and the other for fans/motor. User can easily detach and re-attach the air filter in the available limited space.



**WFA012RG0A / WFA018RG0A
WFA025RG0A / WFA032RG0A**



| INDOOR | | | WFA012RG0A | WFA018RG0A | WFA025RG0A | WFA032RG0A |
|---|--|-------------|--|--------------------|--------------------|--------------------|
| Power Supply | Ø, V, Hz | | 1, 220-230-240, 50 | 1, 220-230-240, 50 | 1, 220-230-240, 50 | 1, 220-230-240, 50 |
| Running Current by Voltage | A | | 0.29-0.29-0.29 | 0.31-0.31-0.31 | 0.32-0.32-0.32 | 0.35-0.35-0.35 |
| Capacity | Cooling | Condition A | 1.3 (1,118) | 1.8 (1,548) | 2.5 (2,150) | 3.2 (2,752) |
| | | Condition B | 1.1 (946) | 1.5 (1,290) | 2.1 (1,806) | 2.7 (2,322) |
| | | Condition C | 1.2 (1,032) | 1.6 (1,376) | 2.2 (1,892) | 2.8 (2,408) |
| | | Condition D | 0.7 (602) | 0.9 (774) | 1.3 (1,118) | 1.6 (1,376) |
| | Heating | Condition A | 2.0 (1,721) | 2.8 (2,408) | 3.2 (2,752) | 3.8 (3,267) |
| | | Condition B | 2.1 (1,806) | 3.0 (2,581) | 3.6 (3,095) | 4.4 (3,783) |
| Water Flow Rate | Cooling | Condition A | 4.0 | 5.6 | 7.4 | 9.3 |
| | | Condition B | 4.0 | 5.6 | 7.4 | 9.3 |
| | | Condition C | 4.0 | 5.6 | 7.4 | 9.3 |
| | | Condition D | 2.7 | 4.0 | 5.0 | 6.3 |
| | Heating | Condition A | 6.2 | 8.5 | 9.7 | 11.4 |
| | | Condition B | 4.0 | 5.6 | 7.4 | 9.3 |
| Head Loss | Cooling | Condition A | 1.2 | 3.3 | 7.6 | 11.8 |
| | | Condition B | 1.2 | 3.3 | 7.6 | 11.8 |
| | | Condition C | 1.2 | 3.3 | 7.6 | 11.8 |
| | | Condition D | 0.8 | 2.3 | 5.3 | 8.2 |
| | Heating | Condition A | 4.4 | 8.5 | 12.5 | 17.8 |
| | | Condition B | 2.0 | 3.5 | 6.9 | 11.4 |
| Power Input | Nominal | W | 8 | 17 | 20 | 27 |
| Running Current | Nominal | A | 0.29 | 0.31 | 0.32 | 0.35 |
| Fan | Type | - | Sirocco Fan | Sirocco Fan | Sirocco Fan | Sirocco Fan |
| | Air Flow Rate (H / M / L) | m³/min | 5.5 / 5.0 / 4.5 | 8.0 / 7.0 / 6.0 | 8.0 / 7.5 / 7.0 | 9.8 / 8.8 / 8.0 |
| | External Static Pressure (Standard mode) | mmAq | 0 | 0 | 0 | 0 |
| | External Static Pressure (High mode) | mmAq | 0 | 0 | 0 | 0 |
| Fan Motor | Type | - | BLDC | BLDC | BLDC | BLDC |
| | Drive | - | CW | CW | CW | CW |
| | Output | W x No. | 19 x 1 | 19 x 1 | 19 x 1 + 5 x 1 | 19 x 1 + 5 x 1 |
| | FLA (Full Load Ampere) | A | 0.29 | 0.31 | 0.32 | 0.35 |
| Dimensions | Net (W x H x D) | mm | 700 x 190 x 700 | 700 x 190 x 700 | 900 x 190 x 700 | 900 x 190 x 700 |
| | Shipping (W x H x D) | mm | 842 x 235 x 766 | 842 x 235 x 766 | 1,042 x 235 x 766 | 1,042 x 235 x 766 |
| Weight | Net | kg | 17.5 | 17.5 | 22.0 | 22.0 |
| | Shipping | kg | 21.9 | 21.9 | 26.9 | 26.9 |
| Air Filter | Type | - | Pre Filter | Pre Filter | Pre Filter | Pre Filter |
| Temperature Control | - | - | Microprocessor, Thermostat for cooling and heating | | | |
| Sound Absorbing / Thermal Insulation Material | - | - | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene |
| Protection Device | - | - | Fuse | Fuse | Fuse | Fuse |
| Water | Inlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| Connecting Pipes | Outlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| Sound Pressure Level | Cooling (H / M / L) | dB(A) | 31 / 30 / 29 | 33 / 32 / 31 | 31 / 30 / 29 | 33 / 32 / 31 |
| | Heating (H / M / L) | dB(A) | 31 / 30 / 29 | 33 / 32 / 31 | 31 / 30 / 29 | 33 / 32 / 31 |
| Sound Power Level | Cooling (H / M / L) | dB(A) | 38 / 36 / 35 | 46 / 43 / 39 | 41 / 40 / 39 | 46 / 43 / 41 |
| | Heating (H / M / L) | dB(A) | 38 / 36 / 35 | 46 / 43 / 39 | 41 / 40 / 39 | 46 / 43 / 41 |
| Connecting Cable | Communication Cable (VCTF-SB) | mm² x cores | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 |

**WFA039RG0A / WFA055RG0A
WFA066RG0A**



| INDOOR | | | WFA039RG0A | WFA055RG0A | WFA066RG0A |
|---|--|-------------|--|--------------------|--------------------|
| Power Supply | Ø, V, Hz | | 1, 220-230-240, 50 | 1, 220-230-240, 50 | 1, 220-230-240, 50 |
| Running Current by Voltage | A | | 0.26-0.37-0.37 | 0.36-0.44-0.44 | 0.70-0.71-0.71 |
| Capacity | Cooling | Condition A | 3.9 (3,353) | 5.0 (4,299) | 6.6 (5,675) |
| | | Condition B | 3.3 (2,837) | 4.2 (3,611) | 5.5 (4,729) |
| | | Condition C | 3.5 (3,009) | 4.4 (3,783) | 5.9 (5,073) |
| | | Condition D | 2.0 (1,721) | 2.5 (2,150) | 3.3 (2,837) |
| | Heating | Condition A | 4.2 (3,611) | 5.3 (4,557) | 6.6 (5,675) |
| | | Condition B | 5.0 (4,299) | 6.4 (5,503) | 8.0 (6,879) |
| Water Flow Rate | Cooling | Condition A | 13.3 | 17.0 | 21.7 |
| | | Condition B | 13.3 | 17.0 | 21.7 |
| | | Condition C | 13.3 | 17.0 | 21.7 |
| | | Condition D | 9.0 | 11.5 | 14.7 |
| | Heating | Condition A | 13.3 | 17.0 | 21.7 |
| | | Condition B | 13.3 | 17.0 | 21.7 |
| Head Loss | Cooling | Condition A | 21.7 | 39.0 | 53.9 |
| | | Condition B | 21.7 | 39.0 | 53.9 |
| | | Condition C | 21.7 | 39.0 | 53.9 |
| | | Condition D | 5.7 | 27.2 | 37.6 |
| | Heating | Condition A | 30.3 | 48.3 | 71.7 |
| | | Condition B | 30.3 | 48.3 | 71.7 |
| Power Input | Nominal | W | 29 | 44 | 81 |
| Running Current | Nominal | A | 0.37 | 0.44 | 0.71 |
| Fan | Type | - | Sirocco Fan | Sirocco Fan | Sirocco Fan |
| | Air Flow Rate (H / M / L) | m³/min | 10.7 / 9.3 / 7.2 | 14.4 / 10.7 / 9.3 | 20.1 / 17.3 / 14.4 |
| | External Static Pressure (Standard mode) | mmAq | 0 | 0 | 0 |
| | External Static Pressure (High mode) | mmAq | 0 | 0 | 0 |
| Fan Motor | Type | - | BLDC | BLDC | BLDC |
| | Drive | - | CW | CW | CW |
| | Output | W x No. | 19 x 2 | 19 x 2 | 19 x 2 |
| | FLA (Full Load Ampere) | A | 0.37 | 0.44 | 0.71 |
| Dimensions | Net (W x H x D) | mm | 1,100 x 190 x 700 | 1,100 x 190 x 700 | 1,100 x 190 x 700 |
| | Shipping (W x H x D) | mm | 1,242 x 235 x 766 | 1,242 x 235 x 766 | 1,242 x 235 x 766 |
| Weight | Net | kg | 26.2 | 26.2 | 33.5 |
| | Shipping | kg | 30.7 | 30.7 | 38.0 |
| Air Filter | Type | - | Pre Filter | Pre Filter | Pre Filter |
| Temperature Control | - | - | Microprocessor, Thermostat for cooling and heating | | |
| Sound Absorbing / Thermal Insulation Material | - | - | Foamed polystyrene | Foamed polystyrene | Foamed polystyrene |
| Protection Device | - | - | Fuse | Fuse | Fuse |
| Water | Inlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| Connecting Pipes | Outlet | - | BSPF G 3/4" (male) | BSPF G 3/4" (male) | BSPF G 3/4" (male) |
| Sound Pressure Level | Cooling (H / M / L) | dB(A) | 28 / 27 / 26 | 31 / 28 / 26 | 38 / 34 / 31 |
| | Heating (H / M / L) | dB(A) | 28 / 27 / 26 | 31 / 28 / 26 | 38 / 34 / 31 |
| Sound Power Level | Cooling (H / M / L) | dB(A) | 43 / 41 / 40 | 47 / 42 / 41 | 55 / 52 / 48 |
| | Heating (H / M / L) | dB(A) | 43 / 41 / 40 | 47 / 42 / 41 | 55 / 52 / 48 |
| Connecting Cable | Communication Cable (VCTF-SB) | mm² x cores | 1.0 - 1.5 | 1.0 - 1.5 | 1.0 - 1.5 |



LG GC Scroll Chiller: the ultimate in customizable air solutions

The LG Scroll Chiller series offers a wide range of up to 20 models that can be built as chillers, free cooling or heat pumps. This solution also boasts 3 different acoustic configurations, 6 dimensional frames and a capacity range between 55 to 360 kW.

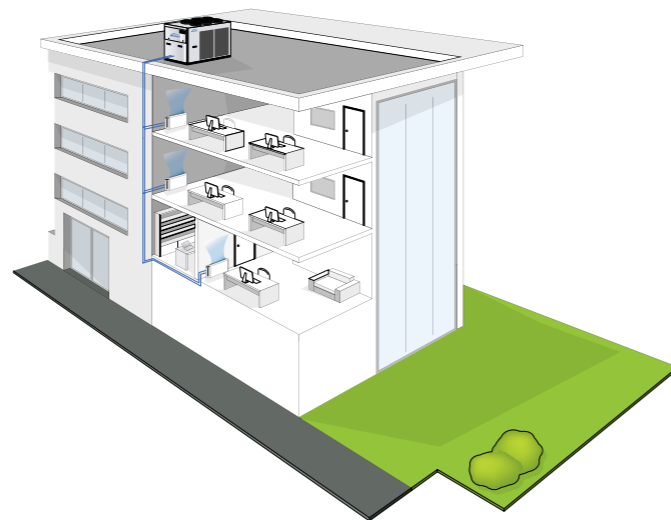


Designed to Meet Your Needs

The possibility of setting up different cooling circuits in units of the same power allows for personalized efficiency levels under full or part load conditions.

- **1 circuit, 2 compressors.** Using 2 compressors in a single cooling circuit increases efficiency under part load conditions, reaching ESEER/SEER and SCOP values greater than 4.
- **2 circuits, 4 compressors.** Using 4 compressors allows for a 4-step power output that can adapt perfectly to the actual thermal load of the system, while reducing starting currents.

Complete hydronic kits can be incorporated within the units without modifying their size and you have the option of choosing the water circulation pump. All units, irrespective of type of construction, are equipped with electronic expansion valves to maximize efficiency under part load conditions.

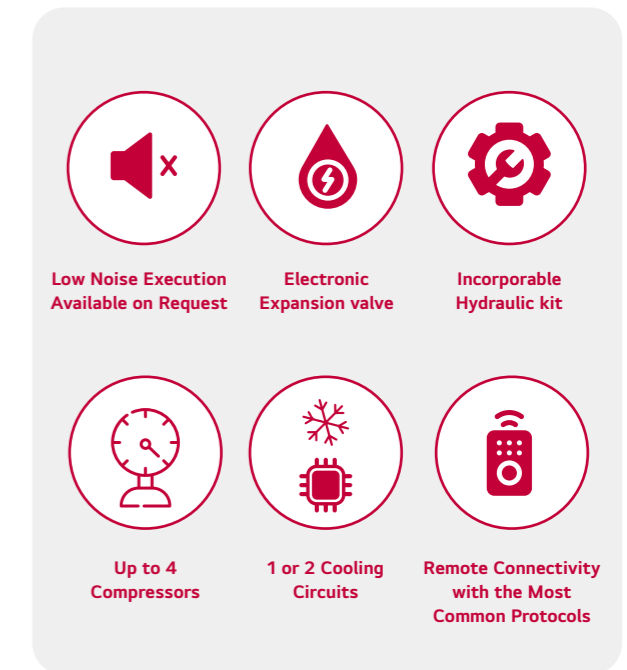


Heat pumps and water chillers are designed for heating or cooling the water to be used in air-conditioning systems for residential, commercial or industrial use.

Key Features



Added Benefits

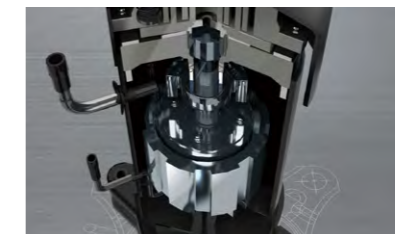


Advanced Components



Accessible Structure

Maintenance and/or inspection are simple with an easily accessible, completely sealed compressor compartment that can be reached from removable panels on 3 sides. Structure is secured by a galvanized steel sheet with a polyester powder coating that is optimal for outdoor durability.



Reliable Scroll Compressors

Complete with motor protection against overheating, overcurrents and excessive outlet gas temperatures, scroll compressors allow for reliability and limited sound emissions.



Efficient Heat Exchanger

Made of large aluminium fins and copper piping, the heat exchanger has been specially engineered for rapid defrost cycles in heat pump models allowing for integrated efficiency of the entire system.



Electronic Microprocessor Control

The microprocessor completely manages the unit, allowing for automatic setpoint adjustments according to outdoor temperatures to reduce consumption and broaden the working temperature range. With the advanced microprocessor control it is possible to set up LAN networks for controlling up to 4 units in parallel.



Fan Drive Assembly

Axial fans with airfoil blades made of plastic aluminum composite are connected to an electric motor with external rotor. The condensation control system continuously and automatically regulates the fan speed. Electric fans with BLDC motor are available on request.



Cooling Circuit Flexibility

The device is available in two different versions with the same power (efficiency pack), using:

- R410A scroll compressors
- Brazed plate heat exchangers
- Finned block condenser
- Electronic expansion valve



Cooling Only Chiller



The LG Cooling Only Chiller is designed to cool the water with reduced energy consumption to be used in several applications to sectors like residential, commercial, data center and industrial applications. Water based applications with big cooling loads are the perfect fit for chilled water solutions like the LG Cooling Only Chiller, which is available in standard and low noise configuration.



Heat Pump Chiller



The LG Reversible Heat Pump Chiller is designed for different types of applications for residential, commercial, data center and industrial use. In transitional times and in the change of seasons LG Heat Pumps are a perfect match for those kind of applications. Reduce the cost of existing heating systems by replacing or combining them with LG Reversible Heat Pumps. LG Heat Pumps are available in Standard and Low-Noise configuration.



Free Cooling Chiller



The LG Free Cooling Chiller is designed for data center, paper industry or other energy intensive applications for energy cost reduction of up to 75% from traditional cooling using compressor energy. This process grants a low payback period by reducing ongoing energy costs whereby power intensive compressors are only switched on when the outside temperature is too high for free cooling. LG Free Cooling is available in low noise configuration.



CONFIGURATION

The models are completely configurable by selecting the version and the options. To the right is shown an example of configuration.

| Version | Fields | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|------------|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|
| GCAS**8YGA | | 0 | B | 1 | S | 0 | 0 | S | 1 | 0 | 0 | G | 0 | V |

To verify the compatibility of the options, use the selection software or the price list.

Configuration Options

Only cooling versions

GCAS-Y Standard execution
GCAS-Z Low noise execution

Reversible heat pump versions

GCHS-Y Standard execution
GCHS-Z Low noise execution

Free cooling version

GCFS-Z Low noise execution

Configuration Options

0 400/3/50 + N
1 400/3/50 with transformer
2 400/3/50 + N + Circuit breakers
3 400/3/50 with transformer+ Circuit breakers

2 ONBOARD CONTROLLER AND EXPANSION VALVE (MANDATORY)

B Advanced + electronic expansion valve

3 USER SIDE WATER PUMP

0 Absent
1 LP pump + expansion vessel
2 HP pump + expansion vessel
3 Double pump LP parallel operation and expansion vessel
4 Double pump HP parallel operation and expansion vessel
5 LP run and standby double pump + expansion vessel
6 HP run and standby double pump + expansion vessel

4 WATER BUFFER TANK

0 Absent
S Selected user side

5 PARTIAL HEAT RECOVERY

0 Absent
D Desuperheater with water pump free contact

6 AIR FLOW MODULATION

0 Absent
C Condensation control by phase-cut fans
E Condensation control performed by EC fans

7 ANTIFREEZING KIT

0 Absent
E Evaporator
P Evaporator and water pump
S Evaporator, water pump and water buffer tank

8 REMOTE COMMUNICATION

0 Absent
1 RS485 serial board (Carel / Modbus protocol)
2 LON FTT10 serial board
3 GSM modem board
4 BACNET IP / PCOWEB serial board

9 SPECIAL COILS / PROTECTIVE TREATMENTS

0 Standard
B Pre-painted fins with epoxy painting
C Cataphoresis
R Copper-copper

10 PACKING

0 Standard
1 Wooden cage
2 Wooden crate

11 ANTI VIBRATION SHOCK MOUNTS

0 Absent
G Rubber anti vibration shock mounts
M Spring anti vibration shock mounts

12 REMOTE CONTROL

0 Absent
1 Remote simplified user panel
2 Remote simplified user panel for standard controller
3 Remote simplified user panel for advanced controller

13 UNIT INSTALLATION ACCESSORIES

0 Absent
V Pair of couplings Victaulic

Accessories

| | | | |
|---|--|---|---|
| A | Power factor capacitors | H | Set point compensation outdoor temperature probe |
| B | Soft starter | I | Refrigerant pressure gauges |
| C | Service kit (mandatory) | L | Filter regulating kit |
| D | Clock board | M | Directives reference other than "2014/68/UE - PED" |
| E | ON/OFF status of the compressors | N | Unit lifting pipes |
| F | Remote control for step capacity limit | P | Outdoor finned coil heat exchanger protection grille |
| G | Configurable digital alarm board | Q | Outdoor finned coil heat exchanger protection filters |

LG GC SCROLL CHILLERS TECHNICAL DATA

| GCAS Y | | GCAS0258YGA | GCAS0308YGA | GCAS0358YGA | GCAS0408YGA | GCAS0458YGA | GCAS0508YGA |
|--|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 89.0 | 102.1 | 119.3 | 143.7 | 152.3 | 183.1 |
| Cooling Capacity [UNI EN 14511] | kW | 88.6 | 101.6 | 118.8 | 143.1 | 151.7 | 182.4 |
| Water Flow User Side | l/h | 15,285 | 17,530 | 20,491 | 24,674 | 26,160 | 31,447 |
| Water Pressure Drops User Side | kPa | 32 | 32 | 34 | 36 | 36 | 37 |
| Compressor Power Input | kW | 29.3 | 33.1 | 38.3 | 46.9 | 52.5 | 59.2 |
| Compressor Absorbed Current | A | 47.0 | 53.1 | 61.4 | 75.2 | 84.1 | 94.9 |
| Total Power Input | kW | 31.8 | 35.6 | 41.6 | 50.2 | 55.8 | 64.9 |
| Total Power Input [UNI EN 14511] | kW | 32.2 | 36.0 | 42.1 | 50.8 | 56.4 | 65.6 |
| Total Absorbed Current | A | 58.4 | 64.5 | 76.5 | 90.5 | 99.4 | 107.7 |
| EER | | 2.80 | 2.87 | 2.87 | 2.86 | 2.73 | 2.82 |
| EER [UNI EN 14511] | | 2.75 | 2.82 | 2.82 | 2.82 | 2.69 | 2.78 |
| ESEER | | 3.61 | 3.37 | 3.76 | 3.64 | 3.68 | 3.59 |
| SEER | | 4.14 | 4.45 | 3.99 | 4.20 | 4.19 | 4.28 |
| Maximum Absorbed Current (FLA) [without Options] | A | 91 | 101 | 120.3 | 129 | 150 | 155 |
| Start up Current (LRA) [without Options] | A | 261 | 269 | 247 | 245 | 266 | 310 |
| Start up Current with Soft Starter kit [without Options] | A | 199 | 207 | 172 | 186 | 214 | 248 |
| Sound Power Level Lw (Base Unit) | dB(A) | 86 | 86 | 85 | 85 | 85 | 88 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 55 | 55 | 54 | 54 | 54 | 57 |
| Air Flow | m ³ /h | 34,900 | 34,900 | 46,700 | 45,500 | 45,500 | 69,000 |
| Number of Fans | | 6 | 6 | 8 | 8 | 8 | 6 |
| Fan Power Input | kW | 2.5 | 2.5 | 3.3 | 3.3 | 3.3 | 5.7 |
| Fan Absorbed Current | A | 11.3 | 11.3 | 15.1 | 15.3 | 15.3 | 12.8 |
| Compressors / Circuits | | 2/1 | 2/1 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 220 | 220 | 340 | 340 | 340 | 600 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 2,360 x 1,185 x 1,720 | 2,360 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,654 x 1,830 |
| Frame Size | | 2 | 2 | 3+ | 3+ | 3+ | 4 |
| Weight without Options | kg | 730 | 730 | 1,050 | 1,070 | 1,220 | 1,460 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C

| GCAS Y | | GCAS0558YGA | GCAS0708YGA | GCAS0758YGA | GCAS0808YGA | GCAS0908YGA | GCAS1008YGA |
|--|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 202.0 | 245.7 | 264.2 | 294.0 | 328.7 | 355.0 |
| Cooling Capacity [UNI EN 14511] | kW | 201.2 | 244.8 | 263.2 | 293.1 | 327.6 | 353.9 |
| Water Flow User Side | l/h | 34,689 | 42,201 | 45,368 | 50,493 | 56,447 | 60,969 |
| Water Pressure Drops User Side | kPa | 38 | 38 | 39 | 40 | 41 | 41 |
| Compressor Power Input | kW | 69.7 | 89.3 | 82.3 | 95.9 | 110.1 | 129.5 |
| Compressor Absorbed Current | A | 111.8 | 143.2 | 132.0 | 153.7 | 176.6 | 207.6 |
| Total Power Input | kW | 75.4 | 94.9 | 89.6 | 103.4 | 117.6 | 137.0 |
| Total Power Input [UNI EN 14511] | kW | 76.2 | 95.7 | 90.5 | 104.3 | 118.7 | 138.1 |
| Total Absorbed Current | A | 124.6 | 155.6 | 148.3 | 170.5 | 193.4 | 224.4 |
| EER | | 2.68 | 2.59 | 2.95 | 2.84 | 2.79 | 2.59 |
| EER [UNI EN 14511] | | 2.64 | 2.56 | 2.91 | 2.81 | 2.76 | 2.56 |
| ESEER | | 3.72 | 3.68 | 3.71 | 3.62 | 3.59 | 3.54 |
| SEER | | 4.31 | 4.19 | 4.33 | 4.37 | 4.12 | 4.15 |
| Maximum Absorbed Current (FLA) [without Options] | A | 173 | 196 | 224 | 237 | 251 | 300 |
| Start up current (LRA) [without Options] | A | 330 | 380 | 403 | 468 | 476 | 497 |
| Start Up Current with Soft Starter Kit [without Options] | A | 268 | 315 | 338 | 385 | 393 | 440 |
| Sound Power Level Lw (Base Unit) | dB(A) | 89 | 89 | 89 | 89 | 89 | 90 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 |
| Air Flow | m ³ /h | 69,000 | 73,500 | 102,000 | 96,500 | 96,500 | 96,500 |
| Number of Fans | | 6 | 6 | 8 | 8 | 8 | 8 |
| Fan Power Input | kW | 5.7 | 5.6 | 7.3 | 7.5 | 7.5 | 7.5 |
| Fan Absorbed Current | A | 12.8 | 12.5 | 16.2 | 16.7 | 16.7 | 16.7 |
| Compressors / Circuits | | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 600 | 600 | 765 | 765 | 765 | 765 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 |
| Frame Size | | 4 | 5 | 6 | 6 | 6 | 6 |
| Weight without Options | kg | 1,470 | 1,620 | 1,880 | 1,912 | 1,947 | 1,947 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C

LG GC SCROLL CHILLERS TECHNICAL DATA

| GCAS Z | | GCAS0208ZGA | GCAS0258ZGA | GCAS0308ZGA | GCAS0358ZGA | GCAS0408ZGA | GCAS0458ZGA | GCAS0508ZGA |
|--|-------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 66.9 | 90.8 | 105.0 | 117.0 | 133.7 | 152.7 | 177.8 |
| Cooling Capacity [UNI EN 14511] | kW | 66.5 | 90.4 | 104.5 | 116.5 | 133.1 | 152.1 | 177.1 |
| Water Flow User Side | l/h | 11,481 | 15,594 | 18,027 | 20,090 | 22,953 | 26,228 | 30,531 |
| Water Pressure Drops User Side | kPa | 29 | 32 | 34 | 34 | 36 | 37 | 37 |
| Compressor Power Input | kW | 21.9 | 30.1 | 34.5 | 37.4 | 42.8 | 52.2 | 59.7 |
| Compressor Absorbed Current | A | 35.2 | 48.2 | 55.4 | 60.0 | 68.6 | 83.8 | 95.8 |
| Total Power Input | kW | 22.7 | 31.1 | 35.5 | 40.5 | 45.9 | 55.4 | 62.9 |
| Total Power Input [UNI EN 14511] | kW | 23.0 | 31.5 | 36.0 | 41.0 | 46.5 | 56.1 | 63.6 |
| Total Absorbed Current | A | 38.5 | 52.6 | 59.8 | 66.9 | 75.6 | 90.9 | 102.9 |
| EER | | 2.95 | 2.92 | 2.95 | 2.89 | 2.91 | 2.76 | 2.83 |
| EER [UNI EN 14511] | | 2.90 | 2.87 | 2.90 | 2.84 | 2.86 | 2.71 | 2.78 |
| ESEER | | 4.02 | 3.86 | 3.95 | 3.64 | 3.91 | 3.71 | 3.54 |
| SEER | | 4.39 | 4.15 | 4.46 | 4.23 | 4.16 | 4.15 | 4.21 |
| Maximum Absorbed Current (FLA) [without options] | A | 55 | 81 | 87 | 96 | 105 | 126 | 148 |
| Start Up Current (LRA) [without Options] | A | 183 | 194 | 198 | 220 | 222 | 241 | 307 |
| Start Up Current with Soft Starter Kit [without Options] | A | 124 | 122 | 137 | 146 | 163 | 189 | 245 |
| Sound Power Level Lw (Base Unit) | dB(A) | 80 | 80 | 80 | 80 | 80 | 80 | 85 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 49 | 49 | 49 | 49 | 49 | 49 | 54 |
| Air Flow | m³/h | 24,400 | 32,800 | 32,800 | 60,400 | 60,400 | 57,000 | 57,000 |
| Number of Fans | | 6 | 8 | 8 | 6 | 6 | 6 | 6 |
| Fan Power Input | kW | 0.7 | 1.0 | 1.0 | 3.1 | 3.1 | 3.2 | 3.2 |
| Fan Absorbed Current | A | 3.3 | 4.4 | 4.4 | 7.0 | 7.0 | 7.1 | 7.1 |
| Compressors / Circuits | | 2/1 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 220 | 340 | 340 | 600 | 600 | 600 | 600 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 2,360 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 1,830 |
| Frame Size | | 2 | 3+ | 3+ | 4 | 4 | 4 | 4 |
| Weight without Options | kg | 635 | 980 | 980 | 1,275 | 1,290 | 1,440 | 1,460 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C

| GCAS Z | | GCAS0558ZGA | GCAS0708ZGA | GCAS0758ZGA | GCAS0808ZGA | GCAS0908ZGA | GCAS1008ZGA |
|--|-------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 197.8 | 219.8 | 255.9 | 278.8 | 316.3 | 338.1 |
| Cooling Capacity [UNI EN 14511] | kW | 197.0 | 219.0 | 25.0 | 277.9 | 315.2 | 336.9 |
| Water Flow User Side | l/h | 33,965 | 37,745 | 43,948 | 47,875 | 54,311 | 58,055 |
| Water Pressure Drops User Side | kPa | 37 | 38 | 38 | 39 | 40 | 41 |
| Compressor Power Input | kW | 70.4 | 80.0 | 85.0 | 102.2 | 116.8 | 144.2 |
| Compressor Absorbed Current | A | 112.8 | 128.2 | 136.3 | 163.9 | 187.4 | 231.3 |
| Total Power Input | kW | 73.5 | 83.1 | 89.1 | 106.4 | 121.0 | 148.4 |
| Total Power Input [UNI EN 14511] | kW | 74.2 | 83.9 | 90.0 | 107.3 | 122.1 | 149.5 |
| Total Absorbed Current | A | 119.8 | 135.2 | 145.4 | 173.3 | 196.8 | 240.7 |
| EER | | 2.69 | 2.65 | 2.87 | 2.62 | 2.61 | 2.28 |
| EER [UNI EN 14511] | | 2.65 | 2.61 | 2.83 | 2.59 | 2.58 | 2.25 |
| ESEER | | 3.69 | 3.61 | 3.50 | 3.54 | 3.56 | 3.49 |
| SEER | | 4.25 | 4.16 | 4.28 | 4.34 | 4.10 | 4.12 |
| Maximum Absorbed Current (FLA) [without Options] | A | 167 | 190 | 215 | 229 | 242 | 290 |
| Start Up Current (LRA) [without options] | A | 318 | 382 | 398 | 464 | 472 | 487 |
| Start Up Current with Soft Starter Kit [without Options] | A | 256 | 317 | 333 | 381 | 389 | 430 |
| Sound Power Level Lw (Base Unit) | dB(A) | 85 | 85 | 87 | 87 | 87 | 88 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 54 | 54 | 56 | 56 | 56 | 57 |
| Air Flow | m³/h | 60,200 | 60,200 | 82,800 | 78,700 | 78,700 | 78,700 |
| Number of Fans | | 6 | 6 | 8 | 8 | 8 | 8 |
| Fan Power Input | kW | 3.1 | 3.1 | 4.1 | 4.2 | 4.2 | 4.2 |
| Fan Absorbed Current | A | 7.0 | 7.0 | 9.2 | 9.4 | 9.4 | 9.4 |
| Compressors / Circuits | | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 600 | 600 | 765 | 765 | 765 | 765 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 3,540 x 1,654 x 2,174 | 3,540 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 |
| Frame Size | | 5 | 5 | 6 | 6 | 6 | 6 |
| Weight without Options | kg | 1,510 | 1,620 | 1,880 | 1,912 | 1,947 | 1,947 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C

LG GC SCROLL CHILLERS TECHNICAL DATA

| GCYS Y | | GCHS0258YGA | GCHS0308YGA | GCHS0358YGA | GCHS0408YGA | GCHS0458YGA | GCHS0508YGA |
|--|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 87.8 | 100.6 | 117.6 | 141.5 | 150.1 | 180.2 |
| Cooling Capacity [UNI EN 14511] | kW | 87.5 | 100.2 | 117.2 | 141.0 | 149.5 | 179.5 |
| Water Flow User Side | l/h | 15,080 | 17,276 | 20,189 | 24,308 | 25,773 | 30,948 |
| Water Pressure Drops User Side | kPa | 24 | 26 | 25 | 31 | 32 | 34 |
| Compressor Power Input | kW | 29.3 | 32.6 | 38.3 | 46.9 | 52.5 | 59.2 |
| Compressor Absorbed Current | A | 47.0 | 52.2 | 61.5 | 75.2 | 84.1 | 94.9 |
| Total Power Input | kW | 31.8 | 35.0 | 41.6 | 50.2 | 55.8 | 64.9 |
| Total Power Input [UNI EN 14511] | kW | 32.1 | 35.4 | 42.0 | 50.7 | 56.3 | 65.6 |
| Total Absorbed Current | A | 58.4 | 63.6 | 76.6 | 90.5 | 99.4 | 107.7 |
| EER | | 2.76 | 2.87 | 2.83 | 2.82 | 2.69 | 2.78 |
| EER [UNI EN 14511] | | 2.73 | 2.83 | 2.79 | 2.78 | 2.66 | 2.74 |
| ESEER | | 3.54 | 3.30 | 3.69 | 3.56 | 3.60 | 3.52 |
| SEER | | 4.11 | 4.38 | 3.97 | 4.16 | 4.15 | 3.64 |
| Heating Capacity (2) | kW | 106.2 | 119.5 | 146.1 | 167.9 | 180.4 | 213.1 |
| Heating Capacity [UNI EN 14511] | kW | 106.7 | 120.0 | 146.7 | 168.6 | 181.3 | 214.0 |
| Water Flow User Side | l/h | 18,461 | 20,768 | 25,387 | 29,176 | 31,359 | 37,031 |
| Water Pressure Drops User Side | kPa | 36 | 37 | 39 | 44 | 47 | 48 |
| Compressor Power Input | kW | 27.1 | 31.3 | 37.8 | 43.3 | 46.6 | 57.9 |
| Compressor Absorbed Current | A | 43.4 | 50.1 | 60.6 | 69.4 | 74.8 | 92.9 |
| Total Power Input | kW | 29.5 | 33.7 | 41.0 | 46.6 | 49.9 | 63.6 |
| Total Power Input [UNI EN 14511] | kW | 30.0 | 34.2 | 41.7 | 47.3 | 50.7 | 64.6 |
| Total Absorbed Current | A | 54.7 | 61.4 | 75.7 | 84.6 | 90.0 | 105.6 |
| COP | | 3.60 | 3.55 | 3.56 | 3.61 | 3.62 | 3.35 |
| COP [UNI EN 14511] | | 3.56 | 3.51 | 3.52 | 3.56 | 3.57 | 3.31 |
| SCOP | | 4.22 | 4.30 | 4.11 | 4.10 | 4.06 | 3.64 |
| ERP Efficiency | | 167.00 | 170.00 | 162.00 | 162.00 | 160.00 | 143.00 |
| ERP Efficiency Class | | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A+ / LT. Heat Pump |
| Maximum Absorbed Current (FLA) [without Options] | A | 91 | 101 | 120 | 129 | 150 | 155 |
| Start Up Current (LRA) [without Options] | A | 261 | 269 | 247 | 245 | 266 | 310 |
| Start Up Current with Soft Starter Kit [without Options] | A | 199 | 207 | 172 | 186 | 214 | 248 |
| Sound Power Level Lw (Base Unit) | dB(A) | 86 | 86 | 85 | 85 | 85 | 88 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 55 | 55 | 54 | 54 | 54 | 57 |
| Air Flow | m ³ /h | 34,900 | 34,900 | 46,700 | 45,500 | 45,500 | 69,000 |
| Number of Fans | | 6 | 6 | 8 | 8 | 8 | 6 |
| Fan Power Input | kW | 2.5 | 2.5 | 3.3 | 3.3 | 3.3 | 5.7 |
| Fan Absorbed Current | A | 11.3 | 11.3 | 15.1 | 15.3 | 15.3 | 12.8 |
| Compressors / Circuits | | 2/1 | 2/1 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 220 | 220 | 340 | 340 | 340 | 600 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 2,360 x 1,185 x 1,720 | 2,360 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,654 x 1,830 |
| Frame Size | | 2 | 2 | 3+ | 3+ | 3+ | 4 |
| Weight without Options | kg | 730 | 730 | 1,050 | 1,070 | 1,220 | 1,460 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C
(2) Heating capacity Water 0% glycol 40-45°C OA 7°C 89%RH

| GCYS Y | | GCHS0558YGA | GCHS0708YGA | GCHS0758YGA | GCHS0808YGA | GCHS0908YGA | GCHS1008YGA |
|--|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 199.0 | 242.1 | 260.3 | 289.7 | 324.2 | 349.5 |
| Cooling Capacity [UNI EN 14511] | kW | 198.3 | 241.3 | 259.4 | 288.7 | 323.2 | 348.5 |
| Water Flow User Side | l/h | 34,175 | 41,577 | 44,698 | 49,746 | 55,669 | 60,026 |
| Water Pressure Drops User Side | kPa | 35 | 35 | 35 | 35 | 37 | 35 |
| Compressor Power Input | kW | 69.8 | 89.3 | 82.2 | 95.9 | 110.5 | 129.5 |
| Compressor Absorbed Current | A | 111.9 | 143.2 | 131.9 | 153.7 | 177.2 | 207.7 |
| Total Power Input | kW | 75.5 | 94.9 | 89.5 | 103.4 | 118.0 | 137.0 |
| Total Power Input [UNI EN 14511] | kW | 76.2 | 95.7 | 90.4 | 104.3 | 119.0 | 138.0 |
| Total Absorbed Current | A | 124.7 | 155.7 | 148.1 | 170.5 | 193.9 | 224.4 |
| EER | | 2.64 | 2.55 | 2.91 | 2.80 | 2.75 | 2.55 |
| EER [UNI EN 14511] | | 2.60 | 2.52 | 2.87 | 2.77 | 2.72 | 2.53 |
| ESEER | | 3.64 | 3.61 | 3.63 | 3.55 | 3.52 | 3.47 |
| SEER | | 3.67 | 3.55 | 3.69 | 3.73 | 3.86 | 4.04 |
| Heating Capacity (2) | kW | 231.9 | 280.3 | 307.6 | 341.8 | 373.4 | 417.9 |
| Heating Capacity [UNI EN 14511] | kW | 232.8 | 281.4 | 308.9 | 343.2 | 374.9 | 419.5 |
| Water Flow User Side | l/h | 40,301 | 48,719 | 53,462 | 59,409 | 64,891 | 72,629 |
| Water Pressure Drops User Side | kPa | 48 | 48 | 50 | 50 | 51 | 51 |
| Compressor Power Input | kW | 64.3 | 78.9 | 80.2 | 90.6 | 101.4 | 119.2 |
| Compressor Absorbed Current | A | 103.1 | 126.6 | 128.6 | 145.3 | 162.6 | 191.1 |
| Total Power Input | kW | 70.0 | 84.5 | 87.4 | 98.1 | 108.9 | 126.7 |
| Total Power Input [UNI EN 14511] | kW | 71.0 | 85.6 | 88.7 | 99.5 | 110.3 | 128.3 |
| Total Absorbed Current | A | 115.9 | 138.9 | 144.8 | 162.1 | 179.3 | 207.8 |
| COP | | 3.31 | 3.32 | 3.52 | 3.48 | 3.43 | 3.30 |
| COP [UNI EN 14511] | | 3.28 | 3.29 | 3.48 | 3.45 | 3.40 | 3.27 |
| SCOP | | 3.64 | 3.66 | 3.71 | 3.74 | 3.75 | 3.69 |
| ERP Efficiency | | 143.00 | 144.00 | 146.00 | 147.00 | 148.00 | 145.00 |
| ERP Efficiency Class | | A+ / LT. Heat Pump | A+ / LT. Heat Pump | A+ / LT. Heat Pump | A+ / LT. Heat Pump | A+ / LT. Heat Pump | A+ / LT. Heat Pump |
| Maximum absorbed current (FLA) [without options] | A | 173 | 196 | 224 | 237 | 251 | 300 |
| Start up current (LRA) [without options] | A | 330 | 380 | 403 | 468 | 476 | 497 |
| Start up current with Soft Starter kit [without options] | A | 268 | 315 | 338 | 385 | 393 | 440 |
| Sound Power Level Lw (base unit) | dB(A) | 89 | 89 | 89 | 89 | 89 | 90 |
| Sound Pressure Level Lp (base unit) @ 10 m | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 |
| Air Flow | m ³ /h | 69,000 | 73,500 | 102,000 | 96,500 | 96,500 | 96,500 |
| Number of Fans | | 6 | 6 | 8 | 8 | 8 | 8 |
| Fan Power Input | kW | 5.7 | 5.6 | 7.3 | 7.5 | 7.5 | 7.5 |
| Fan Absorbed Current | A | 12.8 | 12.5 | 16.2 | 16.7 | 16.7 | 16.7 |
| Compressors / Circuits | | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (option) | l | 600 | 600 | 765 | 765 | 765 | 765 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 | 4,296 x 1,654 x 2,174 |
| Frame Size | | 4 | 5 | 6 | 6 | 6 | 6 |
| Weight without Options | kg | 1,470 | 1,620 | 1,880 | 1,912 | 1,947 | 1,947 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C
(2) Heating capacity Water 0% glycol 40-45°C OA 7°C 89%RH

LG GC SCROLL CHILLERS TECHNICAL DATA

| GCCHS Z | | GCCHS0208ZGA | GCCHS0258ZGA | GCCHS0308ZGA | GCCHS0358ZGA | GCCHS0408ZGA | GCCHS0458ZGA |
|--|-------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 65.7 | 89.2 | 103.5 | 115.5 | 132.7 | 150.7 |
| Cooling Capacity [UNI EN 14511] | kW | 65.4 | 88.8 | 103.1 | 115.1 | 132.2 | 150.1 |
| Water Flow User Side | l/h | 11,285 | 15,313 | 17,778 | 19,842 | 22,795 | 25,881 |
| Water Pressure Drops User Side | kPa | 24 | 25 | 29 | 27 | 29 | 32 |
| Compressor Power Input | kW | 22.0 | 30.2 | 34.7 | 37.6 | 43.5 | 52.7 |
| Compressor Absorbed Current | A | 35.3 | 48.5 | 55.7 | 60.3 | 69.7 | 84.5 |
| Total Power Input | kW | 22.7 | 31.2 | 35.7 | 40.7 | 46.6 | 55.9 |
| Total Power Input [UNI EN 14511] | kW | 23.0 | 31.6 | 36.1 | 41.2 | 47.1 | 56.5 |
| Total Absorbed Current | A | 38.6 | 52.9 | 60.1 | 67.3 | 76.7 | 91.6 |
| EER | | 2.89 | 2.86 | 2.90 | 2.84 | 2.85 | 2.70 |
| EER [UNI EN 14511] | | 2.84 | 2.81 | 2.85 | 2.80 | 2.81 | 2.66 |
| ESEER | | 3.94 | 3.78 | 3.87 | 3.57 | 3.83 | 3.64 |
| SEER | | 4.35 | 4.13 | 4.42 | 3.61 | 3.88 | 3.88 |
| Heating Capacity (2) | kW | 75.9 | 104.7 | 117.0 | 138.3 | 153.8 | 172.7 |
| Heating Capacity [UNI EN 14511] | kW | 76.3 | 105.2 | 117.6 | 138.9 | 154.4 | 173.5 |
| Water Flow User Side | l/h | 13,190 | 18,200 | 20,336 | 24,033 | 26,722 | 30,016 |
| Water Pressure Drops User Side | kPa | 33 | 36 | 37 | 40 | 40 | 43 |
| Compressor Power Input | kW | 20.3 | 28.3 | 32.3 | 35.7 | 39.9 | 49.8 |
| Compressor Absorbed Current | A | 32.5 | 45.4 | 51.7 | 57.2 | 64.0 | 79.9 |
| Total Power Input | kW | 21.0 | 29.3 | 33.3 | 38.8 | 43.1 | 53.0 |
| Total Power Input [UNI EN 14511] | kW | 21.4 | 29.8 | 33.8 | 39.4 | 43.7 | 53.8 |
| Total Absorbed Current | A | 35.8 | 49.8 | 56.2 | 64.2 | 71.0 | 87.1 |
| COP | | 3.61 | 3.57 | 3.52 | 3.56 | 3.57 | 3.26 |
| COP [UNI EN 14511] | | 3.56 | 3.53 | 3.48 | 3.52 | 3.53 | 3.22 |
| SCOP | | 4.38 | 4.13 | 4.19 | 4.22 | 3.74 | 3.91 |
| ERP Efficiency | | 173.00 | 163.00 | 165.00 | 167.00 | 148.00 | 154.00 |
| ERP Efficiency Class | | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A++ / LT. Heat Pump | A+ / LT. Heat Pump | A++ / LT. Heat Pump |
| Maximum Absorbed Current (FLA) [without Options] | A | 55 | 81 | 87 | 96 | 105 | 126 |
| Start Up Current (LRA) [without Options] | A | 183 | 194 | 198 | 220 | 222 | 241 |
| Start Up Current with Soft Starter Kit [without Options] | A | 124 | 122 | 137 | 146 | 163 | 189 |
| Sound Power Level Lw (Base Unit) | dB(A) | 80 | 80 | 80 | 80 | 80 | 80 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 49 | 49 | 49 | 49 | 49 | 49 |
| Air Flow | m³/h | 24,400 | 32,800 | 32,800 | 60,400 | 60,400 | 57,000 |
| Number of Fans | | 6 | 8 | 8 | 6 | 6 | 6 |
| Fan Power Input | kW | 0.7 | 1.0 | 1.0 | 3.1 | 3.1 | 3.2 |
| Fan Absorbed Current | A | 3.3 | 4.4 | 4.4 | 7.0 | 7.0 | 7.1 |
| Compressors / Circuits | | 2/1 | 4/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (option) | l | 220 | 340 | 340 | 600 | 600 | 600 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 2,360 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,185 x 1,720 | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 1,830 | 3,540 x 1,654 x 1,830 |
| Frame Size | | 2 | 3+ | 3+ | 4 | 4 | 4 |
| Weight without Options | kg | 635 | 980 | 980 | 1,275 | 1,290 | 1,440 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C
(2) Heating capacity Water 0% glycol 40-45°C OA 7°C 89%RH

| GCFS Z | | GCFS0258ZGA | GCFS0308ZGA | GCFS0358ZGA | GCFS0408ZGA | GCFS0458ZGA | GCFS0508ZGA |
|---|-------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 93.00 | 105.50 | 121.50 | 132.70 | 153.80 | 180.50 |
| Cooling Capacity [UNI14511] | kW | 92.60 | 105.00 | 120.90 | 132.00 | 153.10 | 179.70 |
| Free-Cooling Capacity (2) | kW | 83.30 | 85.30 | 111.40 | 113.60 | 117.00 | 151.30 |
| Water Flow User Side | l/h | 15,977 | 18,119 | 20,859 | 22,782 | 26,411 | 30,996 |
| Water Pressure Drops User Side | kPa | 31 | 40 | 38 | 45 | 42 | 46 |
| Compressor Power Input | kW | 29.50 | 34.50 | 35.60 | 39.10 | 49.50 | 60.70 |
| Compressor Absorbed Current | A | 47.30 | 55.40 | 57.10 | 62.70 | 79.50 | 97.40 |
| Total Power Input | kW | 30.50 | 35.50 | 39.00 | 42.50 | 52.90 | 64.00 |
| Total Power Input [UNI14511] | kW | 30.90 | 36.10 | 39.60 | 43.10 | 53.60 | 64.80 |
| Free-Cooling Total Power Input | kW | 1.60 | 1.80 | 4.20 | 4.30 | 4.40 | 4.40 |
| Total Absorbed Current | A | 48.90 | 57.00 | 64.70 | 70.30 | 87.00 | 104.60 |
| EER | | 3.05 | 2.97 | 3.11 | 3.12 | 2.91 | 2.82 |
| EER [UNI14511] | | 3.00 | 2.91 | 3.06 | 3.06 | 2.86 | 2.77 |
| Available Pressure Head - HP Pumps (Option) User Side | kPa | 190 | 177 | 191 | 180 | 173 | 267 |
| Available Pressure Head - HP Pumps [AND Logic] (Option) User Side | kPa | 189 | 178 | 194 | 186 | 186 | 198 |
| Maximum Absorbed Current (FLA) [without Options] | A | 77 | 86 | 96 | 106 | 120 | 155 |
| Start Up Current (LRA) [without Options] | A | 246 | 254 | 220 | 306 | 371 | 310 |
| Start Up Current with Soft Starter Kit [without Options] | A | 184 | 192 | 146 | 241 | 288 | 248 |
| Sound Power Level Lw (Base Unit) | dB(A) | 76 | 76 | 80 | 80 | 80 | 80 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 45 | 45 | 49 | 49 | 49 | 49 |
| Air Flow | m³/h | 29,600 | 29,600 | 50,200 | 50,200 | 50,200 | 55,800 |
| Number of Fans | | 8 | 8 | 6 | 6 | 6 | 6 |
| Fan Power Input | kW | 1.00 | 1.00 | 3.40 | 3.40 | 3.40 | 3.20 |
| Fan Absorbed Current | A | 1.60 | 1.60 | 7.60 | 7.60 | 7.60 | 7.20 |
| Compressors / Circuits | | 2/2 | 2/2 | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 340 | 340 | 600 | 600 | 600 | 600 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 3,190 x 1,183 x 1,735 | 3,190 x 1,183 x 1,735 | 3,540 x 1,653 x 1,847 | 3,540 x 1,653 x 1,847 | 3,540 x 1,653 x 1,847 | 3,540 x 1,653 x 2,247 |
| Frame Size | | FC3 | FC3 | FC4 | FC4 | FC4 | FC5 |
| Weight without Options | kg | 1,105 | 1,115 | 1,475 | 1,490 | 1,640 | 1,750 |

(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C
(2) Heating capacity Water 0% glycol 40-45°C OA 7°C 89%RH

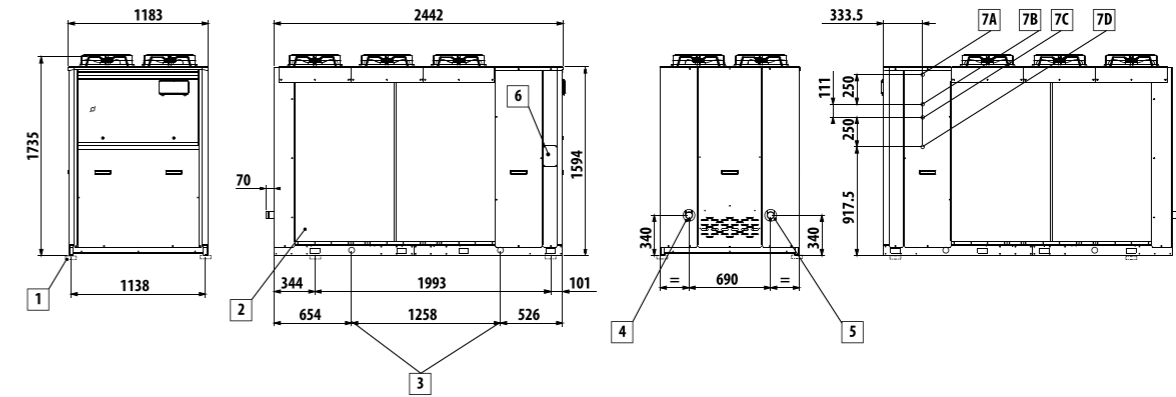
LG GC SCROLL CHILLERS TECHNICAL DATA

| GCFS Z | | GCFS0708ZGA | GCFS0758ZGA | GCFS0808ZGA | GCFS0908ZGA |
|---|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Cooling Capacity (1) | kW | 225.50 | 256.50 | 256.90 | 300.10 |
| Cooling Capacity [UNI14511] | kW | 224.60 | 255.60 | 255.90 | 298.90 |
| Free-Cooling Capacity (2) | kW | 157.70 | 195.40 | 195.50 | 200.80 |
| Water Flow User Side | l/h | 38,726 | 44,051 | 44,110 | 51,531 |
| Water Pressure Drops User Side | kPa | 48 | 37 | 38 | 51 |
| Compressor Power Input | kW | 82.20 | 86.00 | 86.00 | 113.80 |
| Compressor Absorbed Current | A | 131.80 | 137.90 | 137.90 | 182.50 |
| Total Power Input | kW | 85.40 | 90.40 | 90.40 | 118.20 |
| Total Power Input [UNI14511] | kW | 86.30 | 91.30 | 91.30 | 119.40 |
| Free-Cooling Total Power Input | kW | 4.90 | 5.90 | 5.90 | 6.60 |
| Total Absorbed Current | A | 139.00 | 147.70 | 147.70 | 192.30 |
| EER | | 2.64 | 2.84 | 2.84 | 2.54 |
| EER [UNI14511] | | 2.60 | 2.80 | 2.80 | 2.50 |
| Available Pressure Head - HP Pumps (Option) User Side | kPa | 307 | 303 | 288 | 275 |
| Available Pressure Head - HP Pumps [AND Logic] (Option) User Side | kPa | 222 | 222 | 209 | 198 |
| Maximum Absorbed Current (FLA) [without Options] | A | 196 | 215 | 229 | 242 |
| Start Up Current (LRA) [without Options] | A | 380 | 398 | 464 | 472 |
| Start Up Current with Soft Starter Kit [without Options] | A | 315 | 333 | 381 | 389 |
| Sound Power Level Lw (Base Unit) | dB(A) | 80 | 82 | 82 | 82 |
| Sound Pressure Level Lp (Base Unit) @ 10 m | dB(A) | 49 | 51 | 51 | 51 |
| Air Flow | m ³ /h | 55,800 | 71,900 | 71,900 | 71,900 |
| Number of Fans | | 6 | 8 | 8 | 8 |
| Fan Power Input | kW | 3.20 | 4.40 | 4.40 | 4.40 |
| Fan Absorbed Current | A | 7.20 | 9.80 | 9.80 | 9.80 |
| Compressors / Circuits | | 4/2 | 4/2 | 4/2 | 4/2 |
| Buffer Tank Volume (Option) | l | 600 | 765 | 765 | 765 |
| Power Supply | | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 | 400 / 3+N / 50 |
| Refrigerant | | R410A | R410A | R410A | R410A |
| Dimensions [L x D x H] | mm | 3,540 x 1,653 x 2,247 | 4,296 x 1,654 x 2,330 | 4,296 x 1,654 x 2,330 | 4,296 x 1,654 x 2,330 |
| Frame Size | | FC5 | FC6 | FC6 | FC6 |
| Weight without Options | kg | 1,870 | 2,285 | 2,317 | 2,352 |

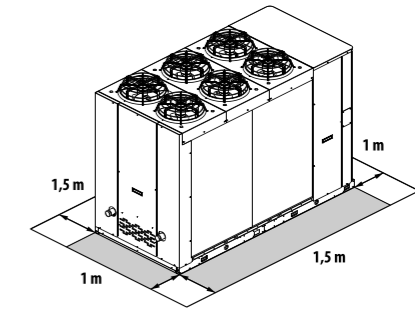
(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C
 (2) Heating capacity Water 0% glycol 40-45°C OA 7°C 89%RH

FRAME 2

(Unit: mm)

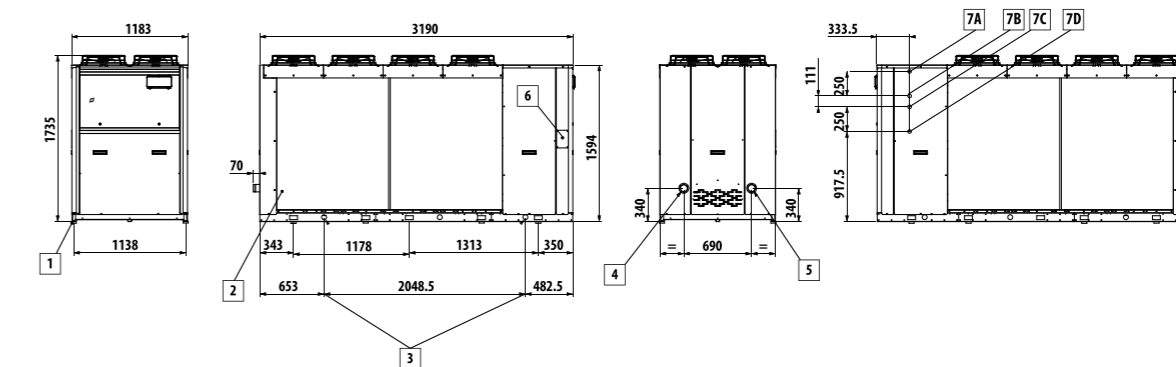


| ITEM NO. | PART NAME |
|----------|---|
| 1 | Vibration dampers |
| 2 | Protection grill (optional) |
| 3 | Lifting points |
| 4 | Water inlet (Victaulic 2") |
| 5 | Water outlet (Victaulic 2") |
| 6 | Power supply input |
| 7A | Heat recovery water outlet (1"), left-hand circuit |
| 7B | Heat recovery water inlet (1"), left-hand circuit |
| 7C | Heat recovery water outlet (1"), right-hand circuit |
| 7D | Heat recovery water inlet (1"), right-hand circuit |

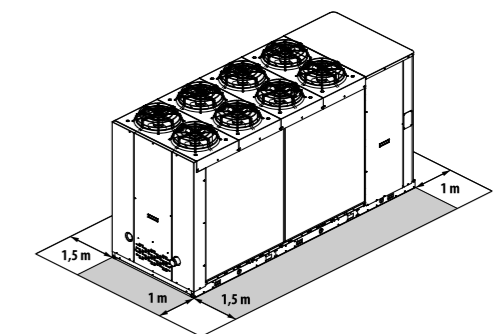


FRAME 3

(Unit: mm)

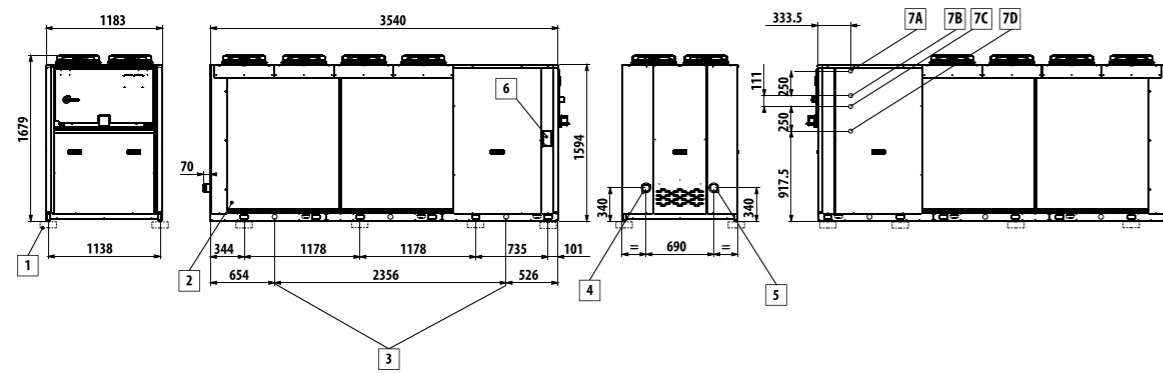


| ITEM NO. | PART NAME |
|----------|---|
| 1 | Vibration dampers |
| 2 | Protection grill (optional) |
| 3 | Lifting points |
| 4 | Water inlet (Victaulic 2") |
| 5 | Water outlet (Victaulic 2") |
| 6 | Power supply input |
| 7A | Heat recovery water outlet (1"), left-hand circuit |
| 7B | Heat recovery water inlet (1"), left-hand circuit |
| 7C | Heat recovery water outlet (1"), right-hand circuit |
| 7D | Heat recovery water inlet (1"), right-hand circuit |

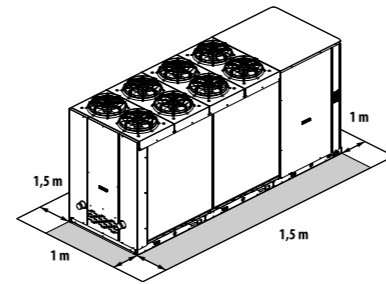


FRAME 3+

(Unit : mm)

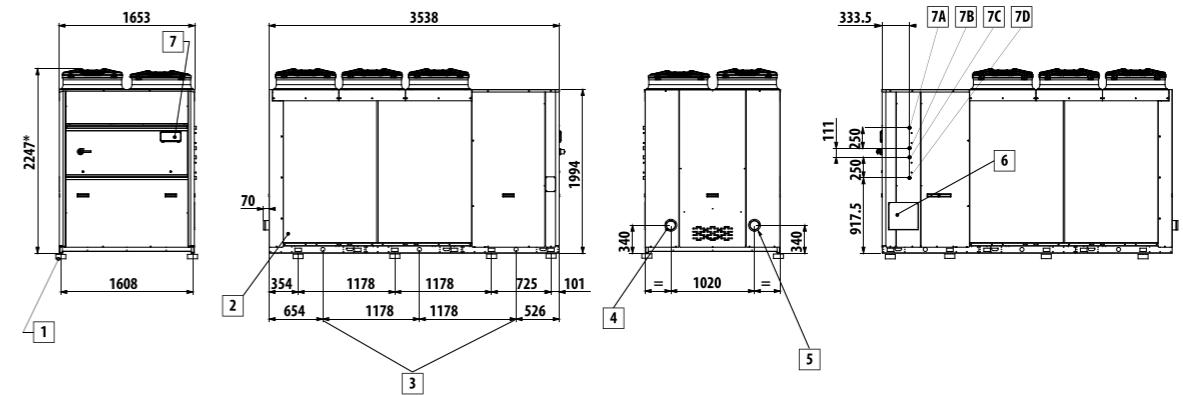


| ITEM NO. | PART NAME |
|----------|--|
| 1 | Vibration dampers |
| 2 | Protection grill (optional) |
| 3 | Lifting points |
| 4 | Water inlet (Victaulic 2") |
| 5 | Water outlet (Victaulic 2") |
| 6 | Power supply input |
| 7A | Heat recovery water outlet (1", left-hand circuit |
| 7B | Heat recovery water inlet (1", left-hand circuit |
| 7C | Heat recovery water outlet (1", right-hand circuit |
| 7D | Heat recovery water inlet (1", right-hand circuit |

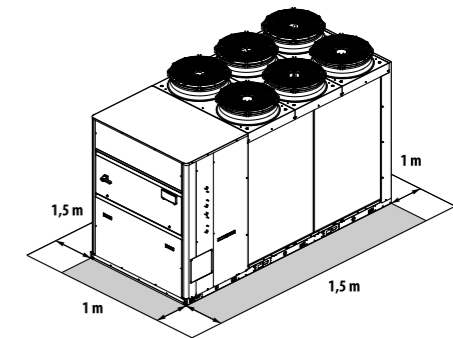


FRAME 5

(Unit : mm)

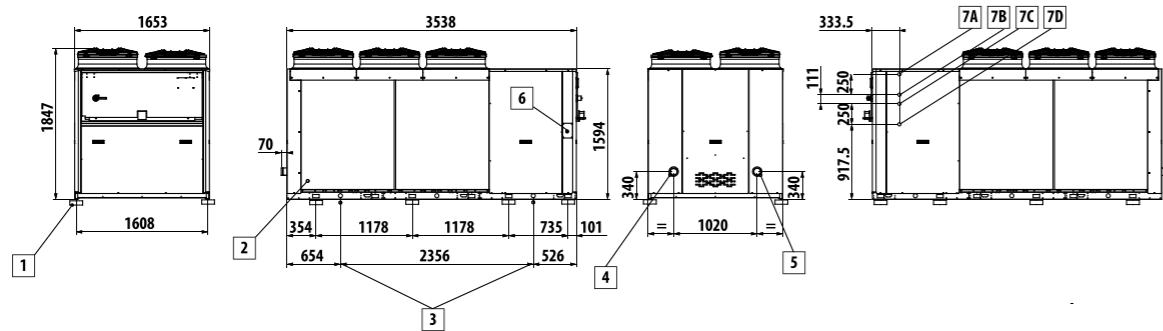


| ITEM NO. | PART NAME |
|----------|--|
| 1 | Vibration dampers |
| 2 | Protection grill (optional) |
| 3 | Lifting points |
| 4 | Water inlet (Victaulic 2") |
| 5 | Water outlet (Victaulic 2") |
| 6 | Power supply input |
| 7A | Heat recovery water outlet (1", left-hand circuit |
| 7B | Heat recovery water inlet (1", left-hand circuit |
| 7C | Heat recovery water outlet (1", right-hand circuit |
| 7D | Heat recovery water inlet (1", right-hand circuit |

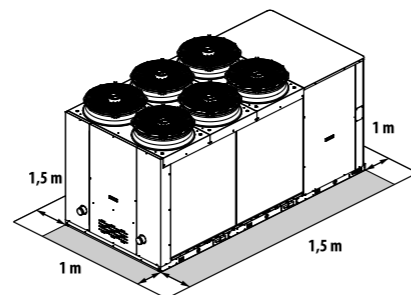


FRAME 4

(Unit: mm)

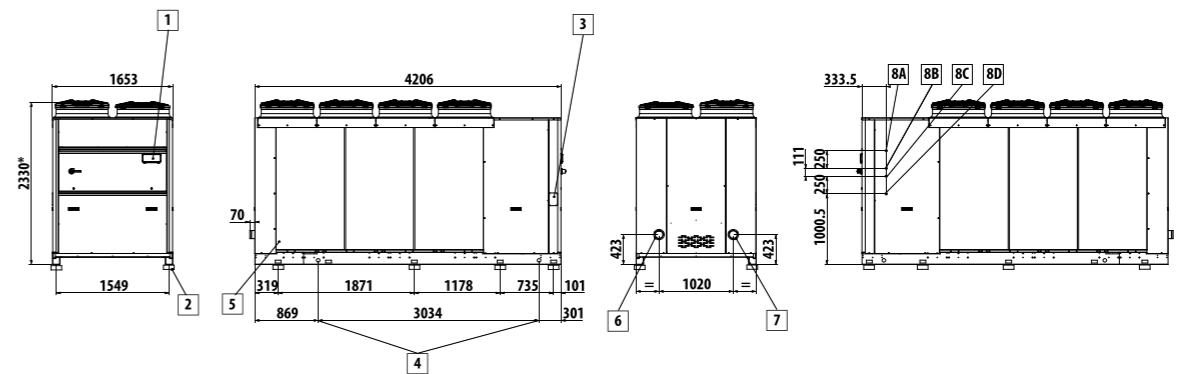


| ITEM NO. | PART NAME |
|----------|--|
| 1 | Vibration dampers |
| 2 | Protection grill (optional) |
| 3 | Lifting points |
| 4 | Water inlet (Victaulic 2") |
| 5 | Water outlet (Victaulic 2") |
| 6 | Power supply input |
| 7A | Heat recovery water outlet (1", left-hand circuit |
| 7B | Heat recovery water inlet (1", left-hand circuit |
| 7C | Heat recovery water outlet (1", right-hand circuit |
| 7D | Heat recovery water inlet (1", right-hand circuit |

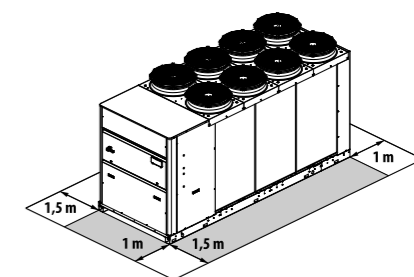


FRAME 6

(Unit: mm)

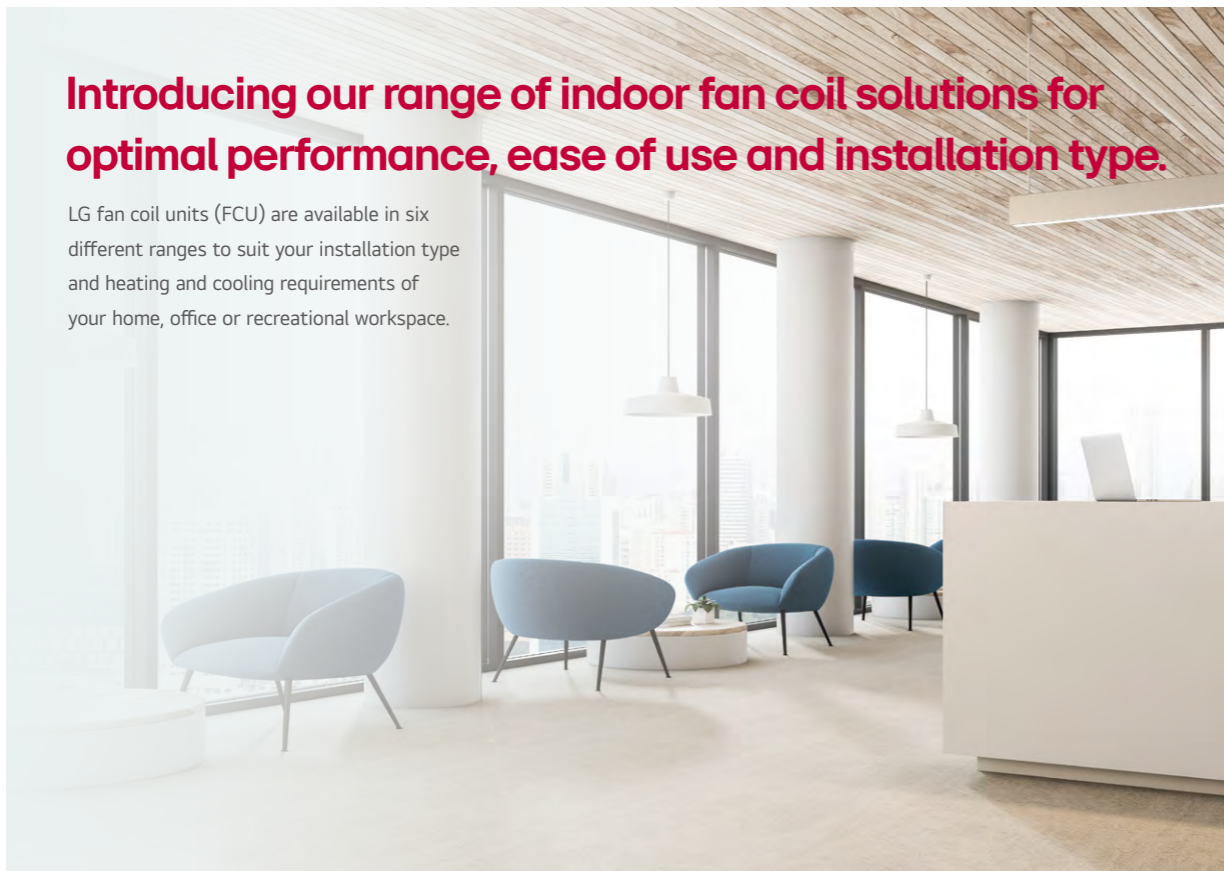


| ITEM NO. | PART NAME |
|----------|--|
| 1 | Vibration dampers |
| 2 | Protection grill (optional) |
| 3 | Lifting points |
| 4 | Water inlet (Victaulic 2") |
| 5 | Water outlet (Victaulic 2") |
| 6 | Power supply input |
| 7A | Heat recovery water outlet (1", left-hand circuit |
| 7B | Heat recovery water inlet (1", left-hand circuit |
| 7C | Heat recovery water outlet (1", right-hand circuit |
| 7D | Heat recovery water inlet (1", right-hand circuit |



Introducing our range of indoor fan coil solutions for optimal performance, ease of use and installation type.

LG fan coil units (FCU) are available in six different ranges to suit your installation type and heating and cooling requirements of your home, office or recreational workspace.



VFL Model



VFC Model



VFU Model



LG Fan coil units are available with or without a cabinet, and are offered with a broad choice of wall mounting options. Our models accommodate choices for floor, wall, high wall, ceiling and recess mountings.

VFY Model



Medium head ductable units, ceiling recessed installation models.

VFZ Model



High head ductable units, ceiling recessed installation models.

4 Way Cassette



Advanced design to fit into standard ceilings modules (600 x 600 mm)

The LG fan coil series can be applied to multiple water solutions:

LG GC Scroll Chiller



LG THERMA V Monobloc



LG THERMA V Split



VFL, VFC AND VFU MODELS

Crafted to surpass your every need

Our VFL, VFC and VFU lines use top quality materials and innovative features to ensure optimal flexibility and low operational noise output.

Our range has been designed to allow for a combination of vertical and horizontal installation types: with models for surface mounting on walls, floors & ceilings and recess mounting in walls or ceilings.

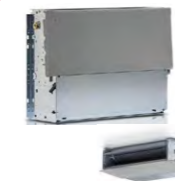
In its recess-mounted ductable version, the FCU line has a number of accessories that permit quick and economical installation with flexible ducts directly coupled with air diffusion grilles for maximum convenience.

VF series can be combined with a large range of on-board or wall-mounted control panels, depending on the level of performance and adjustment required.



VFL

Our in cabinet fan coil unit, suitable for wall mounting. Featuring vertical air flow, filter on the air intake securely attached to the cabinet with quarter-turn screws. The VFL range is available in 7 model variations.



VFC

Our model for vertical and horizontal recess mounting, air intake in line with the outlet, thermally insulated galvanised sheet steel body. Plenum and connectors complete the air intake and the air flow into any room. The VFC range is available in 8 model variations.



VFU

Version with cabinet, suitable for floor and ceiling mounting. The cabinet has air outlet grilles and air intake grilles with built-in filter. The VFU range is available in 5 model variations.

VFL, VFC AND VFU MODELS MAIN COMPONENTS



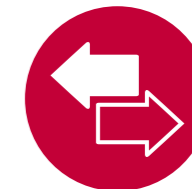
Cabinet

Composed of a painted steel sheet panel, side panels, air outlet grille (swinging by 180°) and back suction grille built from ABS. Round shapes and RAL9003 colour designed to satisfy all interior decorating needs, in line with architectural requirements and aesthetics.



Construction

Premium build quality with galvanized steel housings. All units are heat and sound insulated with Class 1 self-extinguishing panels. Further, VFU and VFC versions feature double drip trays for collecting condensation and excess water.



Heat Exchanger

Highly efficient heat exchanger made with copper piping and aluminium fins, fitted with brass manifolds and durable vent valve. The water connections are reversible at the time of installation. On request it is possible to mount an additional heat exchanger for 4-pipe systems.



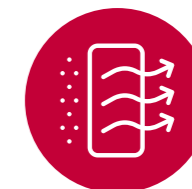
Electric Motor

Mounted on vibration dampers, with permanently activated capacitor and thermal windings protection. Available with optimized 3 speed version for best performance, quietness, and efficient power consumption.



Fan

Double suction centrifugal fans, statically and dynamically balanced, manufactured from anti-static ABS. All blades feature an airfoil section and offset module for maximum efficiency. The fans are further housed in a low-noise ABS volute.



Air Filter

Honey-comb polypropylene washable air filter, easily removable for simple maintenance. On the VFU version the air filters are fitted onto the air inlet grille.

VFL, VFC AND VFU MODELS ACCESSORIES

| Control panels | |
|---|--|
| Electromechanical control panels | |
| On-board speed switch | |
| Recess wall-mounted speed switch | |
| On-board speed thermostat and switch | |
| Thermostat for minimum water temperature in heating mode (42 °C) | |
| Electronic microprocessor control panels with display | |
| MY COMFORT controller spacer for wall mounting | |
| Touch screen 2.8" user panel for EVO control EVO-2-TOUCH, frame in aluminium color black RAL9005 | |
| Touch screen 2.8" user panel for EVO control EVO-2-TOUCH, frame in natural brushed aluminium | |
| Circuit board for EVO control | |
| User interface with display for EVO controller | |
| Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone | |
| MY COMFORT on-board installation kit for VFL, VFC and VFU models | |
| LED503 on-board controller installation kit for VFL, VFC and VFU models | |
| Recessed wall-mounted electronic display controller LED 503 | |
| MYCOMFORT BASE electronic controller with display | |
| Microprocessor control with display MY COMFORT LARGE | |
| MYCOMFORT MEDIUM electronic controller with display | |
| Humidity sensor for MY COMFORT (medium e large), EVO | |
| Water sensor for MYCOMFORT and EVO controllers | |
| Electronic microprocessor control panels | |
| On-board VFL, VFC and VFU installation kit on the right side suitable for TED controller | |
| On-board VFL, VFC and VFU installation kit on the left side suitable for TED controller | |
| Electronic controller for AC fan control and one ON/OFF 230 V valve | |
| Electronic controller for AC fan control and two ON/OFF 230 V valves | |
| Water temperature sensor for TED controls | |
| Accessories | |
| Power interface and regulating louver controllers | Valves |
| On-board speed switch | 2-way valve, ON/OFF actuator, hydraulic kit on water connection side for main heat exchanger |
| Recess wall-mounted speed switch | 2-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit on water connection side for main heat exchanger |
| On-board speed thermostat and switch | 2-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit on water connection side for main and additional heat exchanger |
| Additional heat exchanger for 4-pipe systems | 2-way valve, ON/OFF actuator, 230 V power supply, hydraulic kit on water connection side for main and additional heat exchanger |
| 1-row additional heat exchanger for 4-pipe systems (not suitable for VFL, VFC and VFU model "M" models) | 2-way valve, MODULATING actuator, 24 V power supply, hydraulic kit on water connection side for main heat exchanger |
| Auxiliary water drip trays, insulating shell, condensate drainage pump | 2-way valve, MODULATING actuator, 24 V power supply, hydraulic kit on water connection side for main and additional heat exchanger |
| Auxiliary water drip tray for horizontal installation fan coil units | 3-way valve, ON/OFF actuator, 230 V power supply, complete hydraulic kit for additional heat exchanger |
| Auxiliary water drip tray for vertical installation fan coil units | 3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger |
| Insulating shell for VKS valve, water connections on the left | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger |
| Insulating shell for VKS valve, water connections on the right | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger |
| Condensate drainage pump kit | 3-way valve, MODULATING actuator, 24 V power supply, hydraulic kit without holder, for additional heat exchanger |
| Base and enclosure elements | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger |
| Support elements for VFC | 3-way valve, MODULATING actuator, 24 V power supply, hydraulic kit without holder, for additional heat exchanger |
| Pair of support covering elements for VFL | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Pair of support covering elements with front grille for VFL, VFC and VFU FL | 3-way valve, MODULATING actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger |
| Rear covering panels | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Rear painted panel for horizontal installation with cabinet | 3-way valve, ON/OFF actuator, 230 V power supply, hydraulic kit without holder, for additional heat exchanger |
| Rear painted panel for vertical installation with cabinet | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger |
| Electrical heating elements | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger |
| Heating element with installation kit, relay box and safety devices | 3-way valve, MODULATING actuator, 24 V power supply, hydraulic kit without holder, for additional heat exchanger |
| Air inlet and outlet grilles | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Aluminium external air intake grille with subframe | 3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Aluminium external air intake grille with subframe and air filter | 3-way valve, ON/OFF actuator, 1230 V power supply, complete hydraulic kit for main heat exchanger |
| Aluminium air outlet grille with 2-row fins and subframe | 3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Plenum with circular collars for air outlet grille | 3-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger |
| Plenum and connectors | 3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Angular inlet connector | 3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Straight inlet connector | 3-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger |
| Air inlet plenum with circular collars | 3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger |
| Angular outlet connector | 3-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger |
| Angular outlet insulated connector | 3-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger |
| Straight outlet insulated connector | 3-way valve, ON/OFF actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger |
| Air outlet plenum with circular collars | 3-way valve, ON/OFF actuator, 230 V power supply, hydraulic kit without holder, for main heat exchanger |
| Straight outlet connector | 2-way valves pressure independent, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger |
| External air intake louvers | Sanitisation system |
| Manual external air intake louver | |
| Motor-driven louver, with motor on the right with transformer | |
| Motor-driven louver, with motor on the left with transformer | |
| Motor driven louver, with motor on the right, with transformer | Sanitizing module JONIX for on-board installation |
| Motor driven louver, with motor on the left, with transformer | |

VFL, VFC AND VFU MODELS RATED TECHNICAL DATA

| Model VFL / VFC / VFU with AC Motor | 03 | | | 05 | | | 06 | | | 08 | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | min | med | max | min | med | max | min | med | max | min | med | max | |
| Fan speed | | | | | | | | | | | | | |
| Total cooling capacity (1) | kW | 0.77 | 0.92 | 1.15 | 1.04 | 1.24 | 1.54 | 1.26 | 1.52 | 1.74 | 1.60 | 2.03 | 2.42 |
| Sensible cooling capacity (1) | kW | 0.59 | 0.70 | 0.87 | 0.79 | 0.97 | 1.20 | 0.95 | 1.14 | 1.30 | 1.18 | 1.57 | 1.88 |
| Water flow (1) | l/h | 132 | 158 | 197 | 179 | 213 | 264 | 216 | 261 | 299 | 275 | 348 | 415 |
| Water pressure drop (1) | kPa | 4 | 5 | 7 | 7 | 9 | 13 | 8 | 11 | 14 | 8 | 12 | 16 |
| Heating capacity (2) | kW | 1.11 | 1.30 | 1.55 | 1.43 | 1.73 | 2.14 | 1.71 | 2.04 | 2.20 | 2.07 | 2.68 | 3.20 |
| Water pressure drop (2) | kPa | 3 | 4 | 6 | 6 | 8 | 11 | 7 | 9 | 12 | 6 | 10 | 13 |
| Heating capacity (3) | kW | 1.94 | 2.27 | 2.68 | 2.47 | 2.99 | 3.71 | 2.93 | 3.50 | 3.74 | 3.52 | 4.57 | 5.47 |
| Water flow (3) | l/h | 171 | 199 | 235 | 216 | 263 | 325 | 257 | 307 | 329 | 308 | 401 | 480 |
| Water pressure drop (3) | kPa | 4 | 6 | 8 | 7 | 10 | 15 | 8 | 11 | 13 | 7 | 12 | 16 |
| Air flow | m³/h | 149 | 189 | 231 | 178 | 233 | 319 | 211 | 271 | 344 | 241 | 341 | 442 |
| Power input | W | 18 | 21 | 32 | 21 | 28 | 37 | 25 | 36 | 53 | 29 | 44 | 57 |
| Sound power level (4) | dB/A | 30 | 32 | 40 | 37 | 42 | 47 | 38 | 44 | 49 | 35 | 43 | 48 |
| Additional coil heating capacity DF (3) | kW | 1.35 | 1.50 | 1.70 | 1.50 | 1.70 | 1.90 | 1.56 | 1.78 | 2.02 | 2.06 | 2.53 | 2.92 |
| Water flow (3) | l/h | 118 | 132 | 149 | 132 | 149 | 167 | 137 | 156 | 177 | 181 | 222 | 257 |
| Water pressure drop (3) | kPa | 3 | 4 | 4 | 4 | 5 | 6 | 5 | 7 | 8 | 2 | 3 | 4 |

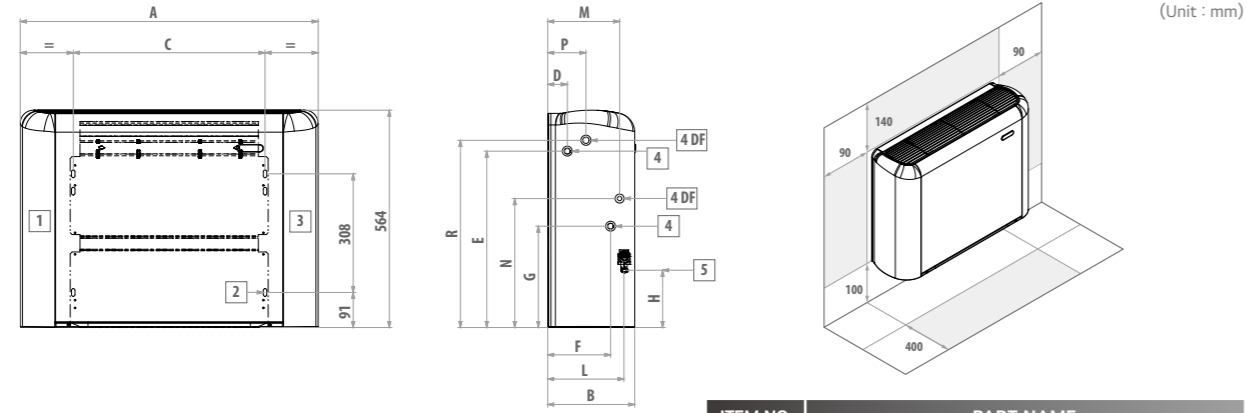
| Model VFL / VFC / VFU with AC Motor | 12 | | | 15 | | | 18 | | | 21 | | | 26 | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|-------|
| | min | med | max | min | med | max | min | med | max | min | med | max | min | med | max | |
| Fan speed | | | | | | | | | | | | | | | | |
| Total cooling capacity (1) | kW | 1.98 | 2.63 | 3.51 | 3.00 | 3.66 | 4.51 | 3.42 | 4.19 | 5.26 | 3.97 | 5.27 | 6.71 | 4.11 | 6.24 | 8.02 |
| Sensible cooling capacity (1) | kW | 1.45 | 2.04 | 2.75 | 2.23 | 2.82 | 3.53 | 2.34 | 3.00 | 3.82 | 2.84 | 3.83 | 4.91 | 3.05 | 4.63 | 5.96 |
| Water flow (1) | l/h | 340 | 451 | 602 | 515 | 628 | 774 | 587 | 719 | 902 | 682 | 905 | 1,152 | 706 | 1,071 | 1,376 |
| Water pressure drop (1) | kPa | 4 | 7 | 12 | 7 | 10 | 14 | 9 | 13 | 19 | 5 | 8 | 12 | 6 | 13 | 20 |
| Heating capacity (2) | kW | 2.81 | 3.69 | 4.78 | 3.93 | 4.84 | 5.91 | 4.22 | 5.18 | 6.57 | 4.77 | 6.23 | 7.83 | 5.24 | 7.80 | 10.0 |
| Water pressure drop (2) | kPa | 4 | 6 | 10 | 6 | 8 | 12 | 7 | 10 | 16 | 4 | 6 | 10 | 5 | 11 | 16 |
| Heating capacity (3) | kW | 4.83 | 6.34 | 8.21 | 6.69 | 8.25 | 10.1 | 7.10 | 8.72 | 11.1 | 8.06 | 10.5 | 13.1 | 8.91 | 13.2 | 16.9 |
| Water flow (3) | l/h | 424 | 556 | 720 | 588 | 724 | 884 | 623 | 765 | 973 | 707 | 918 | 1,152 | 782 | 1,158 | 1,486 |
| Water pressure drop (3) | kPa | 5 | 8 | 13 | 7 | 10 | 14 | 8 | 11 | 17 | 4 | 6 | 9 | 6 | 11 | 17 |
| Air flow | m³/h | 320 | 450 | 640 | 470 | 605 | 785 | 488 | 615 | 814 | 570 | 771 | 1,011 | 642 | 1,022 | 1,393 |
| Power input | W | 40 | 50 | 65 | 50 | 65 | 90 | 52 | 73 | 107 | 86 | 127 | 182 | 109 | 169 | 244 |
| Sound power level (4) | dB/A | 35 | 43 | 52 | 43 | 49 | 56 | 44 | 51 | 58 | 47 | 54 | 61 | 49 | 60 | 67 |
| Additional coil heating capacity DF (3) | kW | 3.21 | 3.96 | 4.80 | 4.04 | 4.65 | 5.30 | 4.21 | 4.78 | 5.51 | 5.69 | 6.83 | 7.91 | 5.50 | 7.14 | 8.35 |
| Water flow (3) | l/h | 282 | 347 | 421 | 355 | 408 | 465 | 369 | 419 | 483 | 499 | 600 | 694 | 483 | 627 | 733 |
| Water pressure drop (3) | kPa | 10 | 14 | 20 | 6 | 8 | 10 | 9 | 11 | 14 | 17 | 23 | 30 | 14 | 23 | 30 |

- (1) Water temperature 7 / 12°C, air temperature D.B. 27°C, W.B. 19°C (47% relative humidity)
- (2) Inlet water temperature 50°C, water flow rate same as in cooling mode, air temperature 20°C
- (3) Water temperature 70 / 60°C, air temperature 20°C
- (4) Sound power measured according to standards ISO 3741 and ISO 3742 Power supply 230-1-50 (V-ph-Hz)

Not all the models are available in all capacities. Please see the below matrix to check availability:

| Model | Capacity (kW) | | | | | | | | | |
|-------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|---|
| | 03 | 05 | 06 | 08 | 12 | 15 | 18 | 21 | 26 | |
| | 1.1 | 1.5 | 1.7 | 2.4 | 3.5 | 4.4 | 5.2 | 6.5 | 7.8 | |
| VFL | | ● | ● | ● | ● | ● | ● | ● | | |
| VFC | ● | ● | ● | ● | ● | ● | ● | ● | | |
| VFU | | | | | ● | ● | ● | ● | ● | ● |

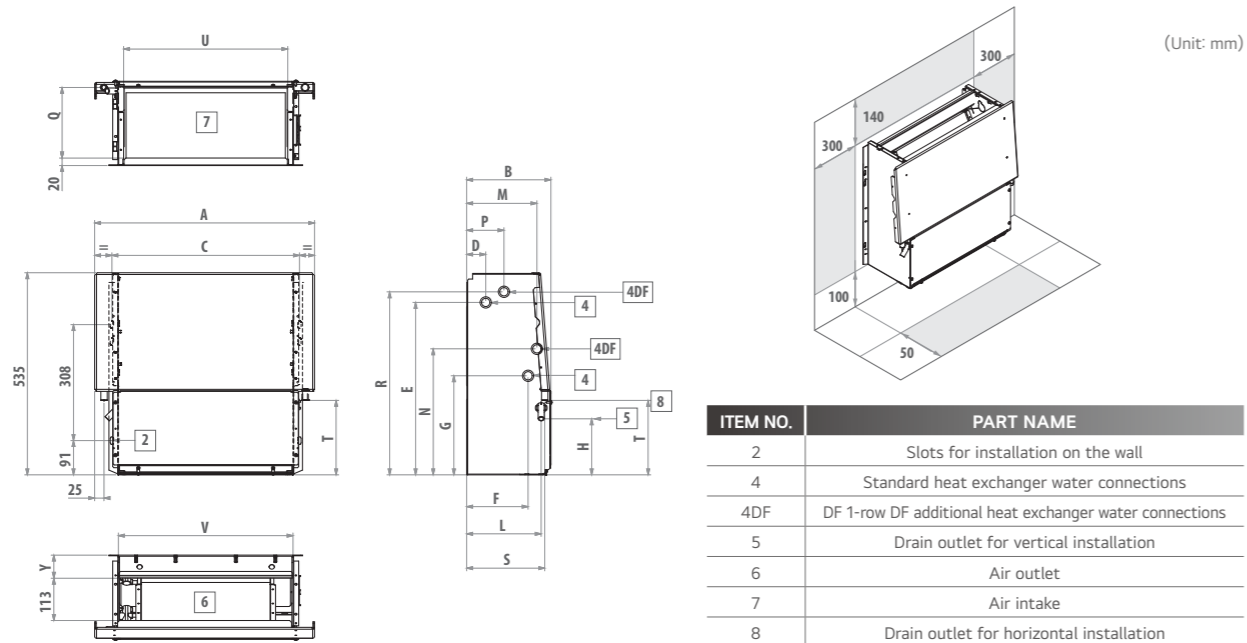
VFL MODEL DIMENSIONAL DRAWING



| ITEM NO. | PART NAME |
|----------|--|
| 1 | Usable space for plumbing connections |
| 2 | Slots for installation on the wall |
| 3 | Usable space for electrical connections |
| 4 | Standard heat exchanger water connections |
| 4DF | DF 1-row additional heat exchanger water connections |
| 5 | Condensate drainage |

| VFL | A | B | C | D | E | F | G | H | L | M | N | P | R | 4 | 4DF | 5 | kg |
|---------|-------|-----|-------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| Size | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | " | " | mm | |
| 05 - 06 | 774 | 226 | 498 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 486 | 1/2 | 1/2 | 16 | 21 |
| 08 | 984 | 226 | 708 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 486 | 1/2 | 1/2 | 16 | 27 |
| 12 - 15 | 1,194 | 226 | 918 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 486 | 1/2 | 1/2 | 16 | 33 |
| 18 | 1,194 | 251 | 918 | 48 | 497 | 185 | 259 | 155 | 220 | 195 | 348 | 120 | 478 | 3/4 | 1/2 | 16 | 34 |
| 21 | 1,404 | 251 | 1,128 | 48 | 497 | 185 | 259 | 155 | 220 | 195 | 348 | 120 | 478 | 3/4 | 1/2 | 16 | 43 |

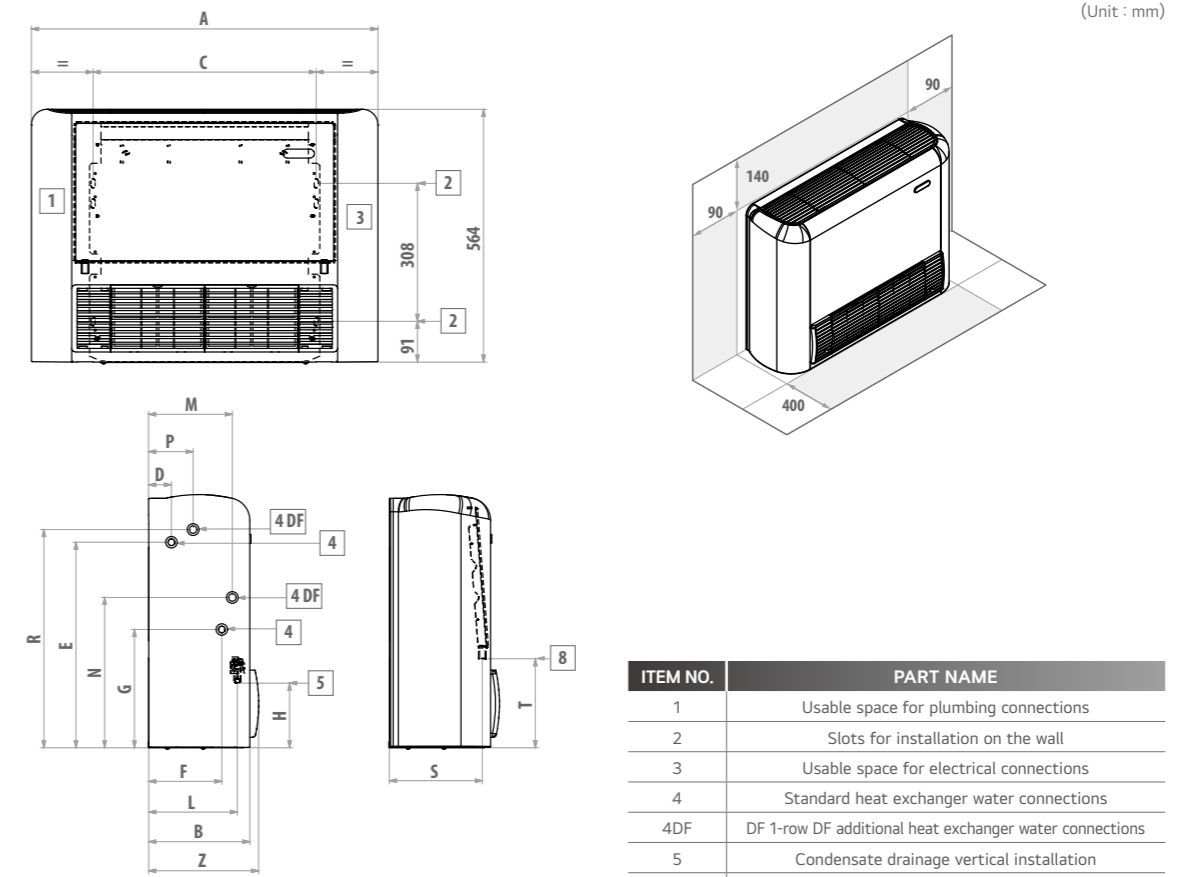
VFC MODEL DIMENSIONAL DRAWING



| ITEM NO. | PART NAME |
|----------|---|
| 2 | Slots for installation on the wall |
| 4 | Standard heat exchanger water connections |
| 4DF | DF 1-row DF additional heat exchanger water connections |
| 5 | Drain outlet for vertical installation |
| 6 | Air outlet |
| 7 | Air intake |
| 8 | Drain outlet for horizontal installation |

| VFC | A | B | C | D | E | F | G | H | L | M | N | P | Q | R | S | T | U | V | Y | 4 | 4DF | 5 |
|--------------|-------|-----|-------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|----|------|------|----|
| Size | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | " | " | mm |
| 03 - 05 - 06 | 584 | 224 | 498 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 189 | 486 | 208 | 198 | 436 | 464 | 61 | 1/2" | 1/2" | 16 |
| 08 | 794 | 224 | 708 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 189 | 486 | 208 | 198 | 646 | 674 | 61 | 1/2" | 1/2" | 16 |
| 12 - 15 | 1,004 | 224 | 918 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 189 | 486 | 208 | 198 | 856 | 884 | 61 | 1/2" | 1/2" | 16 |
| 18 | 1,004 | 249 | 918 | 48 | 497 | 185 | 259 | 155 | 220 | 195 | 348 | 120 | 215 | 478 | 234 | 208 | 856 | 884 | 67 | 3/4" | 1/2" | 16 |
| 21 | 1,214 | 249 | 1,128 | 48 | 497 | 185 | 259 | 155 | 220 | 195 | 348 | 120 | 215 | 478 | 234 | 208 | 1,066 | 1,094 | 67 | 3/4" | 1/2" | 16 |

VFU MODEL DIMENSIONAL DRAWING



| ITEM NO. | PART NAME |
|----------|---|
| 1 | Usable space for plumbing connections |
| 2 | Slots for installation on the wall |
| 3 | Usable space for electrical connections |
| 4 | Standard heat exchanger water connections |
| 4DF | DF 1-row DF additional heat exchanger water connections |
| 5 | Condensate drainage vertical installation |
| 8 | Condensate drainage horizontal installation |

| VFU | A | B | C | D | E | F | G | H | L | M | N | P | R | S | T | Z | 4 | kg |
|---------|-------|-----|-------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Size | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | " | |
| 12 - 15 | 1,194 | 226 | 918 | 51 | 458 | 163 | 263 | 149 | 198 | 187 | 335 | 99 | 486 | 208 | 198 | 246 | 1/2 | 35 |
| 18 | 1,194 | 251 | 918 | 48 | 497 | 185 | 259 | 155 | 220 | 195 | 348 | 120 | 478 | 234 | 208 | 271 | 3/4 | 36 |
| 21 - 26 | 1,404 | 251 | 1,128 | 48 | 497 | 185 | 259 | 155 | 220 | 195 | 348 | 120 | 478 | 234 | 208 | 271 | 3/4 | 45 |

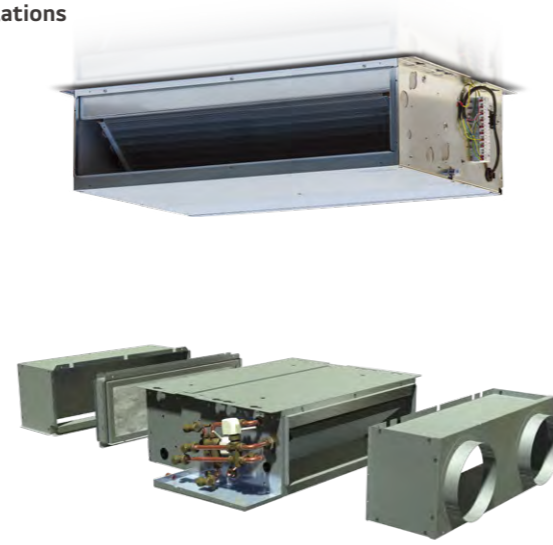
VFY MODEL MEDIUM HEAD DUCT UNITS

Performance and compact design for recessed ceiling installations

The VFY ducted range has been manufactured for air conditioning interiors where the installation of high performance medium head units with reduced overall dimensions is necessary. The heat exchanger enables VFY model units to be used under a whole variety of operating conditions. The weight-bearing structure houses a 3- or 4-rows exchanger which can be combined with an additional 1 or 2 rows exchanger for exceptional performance even with low temperature differentials. The heat exchangers can be optimized for centralized applications such as district cooling. VFY model units is designed for horizontal ceiling installation. The main condensate drip tray is situated inside the structure of the unit and is at positive pressure relative to the drain outlet to facilitate condensate drainage.

A wide range of wall mounted controllers are available, including controllers of an electromechanical type and microprocessor controllers with display.

Heating elements complete with safety devices are available to supplement the hydronic system.



VFY MODEL DUCT UNITS COMPONENTS

Structure

Built from galvanized steel with heat and sound insulation through Class 1 self-extinguishing panels. Reduced height allows this unit to be mounted in a horizontal position in a false ceiling. The structure incorporates a drip tray and condensate drain outlet.

Heat Exchanger

High efficiency 3 and 4 rows heat exchanger made with copper piping and aluminium fins blocked to piping by mechanical expansion provided with brass manifolds and air vent valve. The heat exchanger usually comes with water connections mounted on the left, but it can be turned by 180°. High-efficiency heat exchangers optimized for district cooling applications are also available on request.

Electric Motor

Single-phase asynchronous multi-speed electric motor with permanently connected capacitor and thermal protector, mounted on vibration-damping supports.

Fan

Single-phase asynchronous multi-speed electric motor with permanently connected capacitor and thermal protector, mounted on vibration-damping supports.

Air Filter

Washable air filter made of acrylic fibre, filtration class G2, G3 or G4, applied on the air intake; may be pulled out from below the unit.

VFY MODEL DUCT UNITS ACCESSORIES

ACCESSORIES

Electromechanical control panels

Recess wall-mounted speed switch

Wall mounted speed selector

Thermostat for minimum water temperature in heating mode (42 °C)

Electronic microprocessor control panels with display

Finishing plate for LED 503 controller, RAL9005 black

Finishing plate for LED 503 controller, RAL7031 grey

Finishing plate for LED 503 controller, RAL9003 white

MY COMFORT controller spacer for wall mounting

2.8" touch screen user interface for EVO control

Circuit board for EVO control

User interface with display for EVO controller

Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone

Recessed wall-mounted electronic display controller LED 503

MYCOMFORT BASE electronic controller with display

Microprocessor control with display MY COMFORT LARGE

MYCOMFORT MEDIUM electronic controller with display

Humidity sensor for MY COMFORT (medium e large), EVO

Water sensor for MYCOMFORT and EVO controllers

Electronic microprocessor control panels

Electronic controller for AC fan control and one ON/OFF 230 V valve

Electronic controller for AC fan control and two ON/OFF 230 V valves

Water temperature sensor for TED controls

Power interface and regulating louver controllers

Power interface for connecting in parallel up to 4 fan coil units to the one controller

Power interface and regulating louver controllers

Heating element with installation kit, relay box and safety devices

Air inlet and outlet grilles

Aluminium air intake grille, with frame

Aluminium air outlet grille with 2-row fins and subframe

Valves

2-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main and additional heat exchanger

2-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger

3-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for additional heat exchanger

2-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger

2-way valves pressure independent. ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger

Plenum, air intake modules, air inlet and outlet connectors and cabinets

Air intake module with G3 air filter

Air intake module with G4 air filter

Air intake module with G4 air filter

Intake and delivery plenum, not insulated, with spigot Ø 200 mm

Intake and delivery plenum, not insulated, with spigot Ø 200 mm

Intake and delivery plenum, insulated, with spigot Ø 200 mm

90° uninsulated air inlet/outlet connector

90° uninsulated air inlet/outlet connector

Straight uninsulated air inlet/outlet connector

Straight insulated air inlet/outlet connector

Flexible ducts - caps

Not insulated flexible ducts, Ø 200 mm (6 m length indivisible)

Insulated flexible ducts, Ø 200 mm (6 m length indivisible)

Plastic cap Ø 200 mm

Air inlet and outlet plenum box

Air Inlet plenum box with double row grille

Air Inlet plenum box with double row grille 300 x 600 mm and filter G2

Insulated air outlet plenum box with grille

Accessories

Condensate drainage pump kit

Auxiliary water drip tray

Sanitisation system

Sanitizing module JONIX™ (ducted installation)

Sanitizing module JONIX™ (installation on plenum)

VFY MODEL DUCT UNITS RATED TECHNICAL DATA

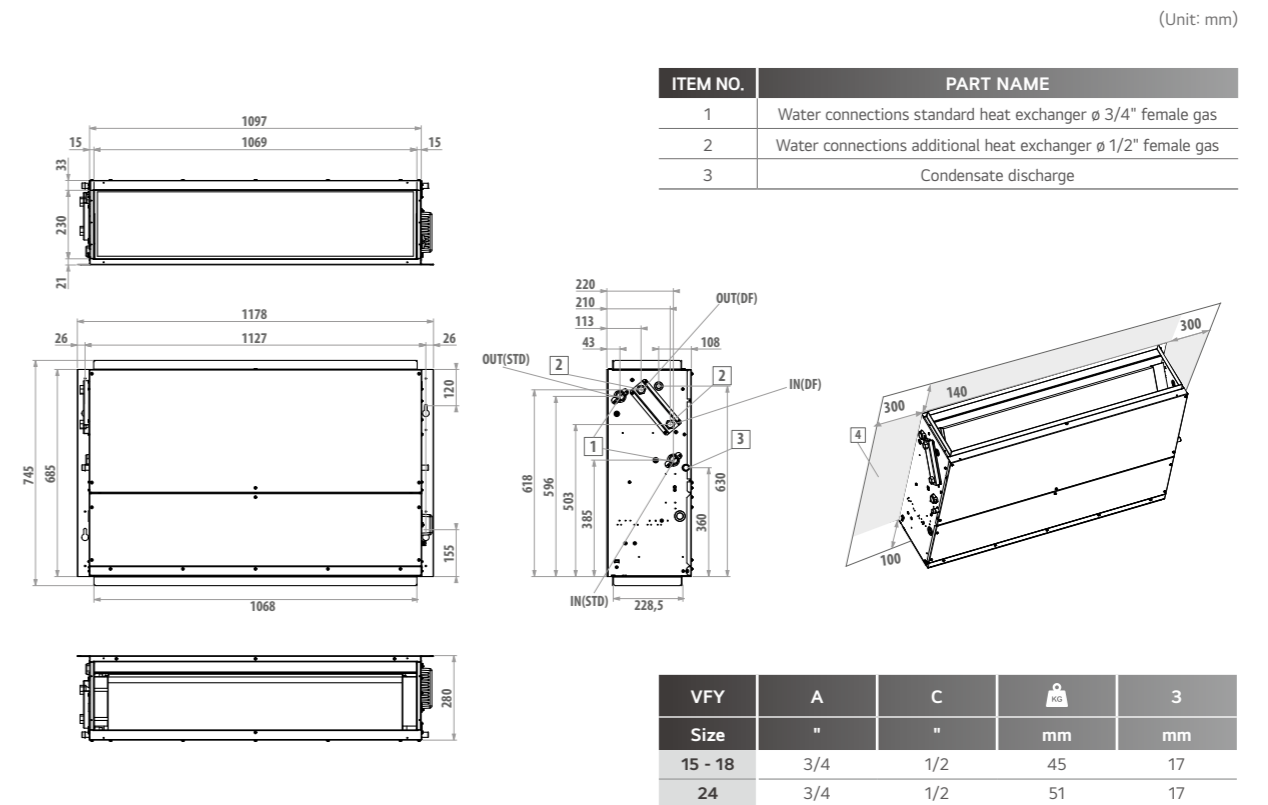
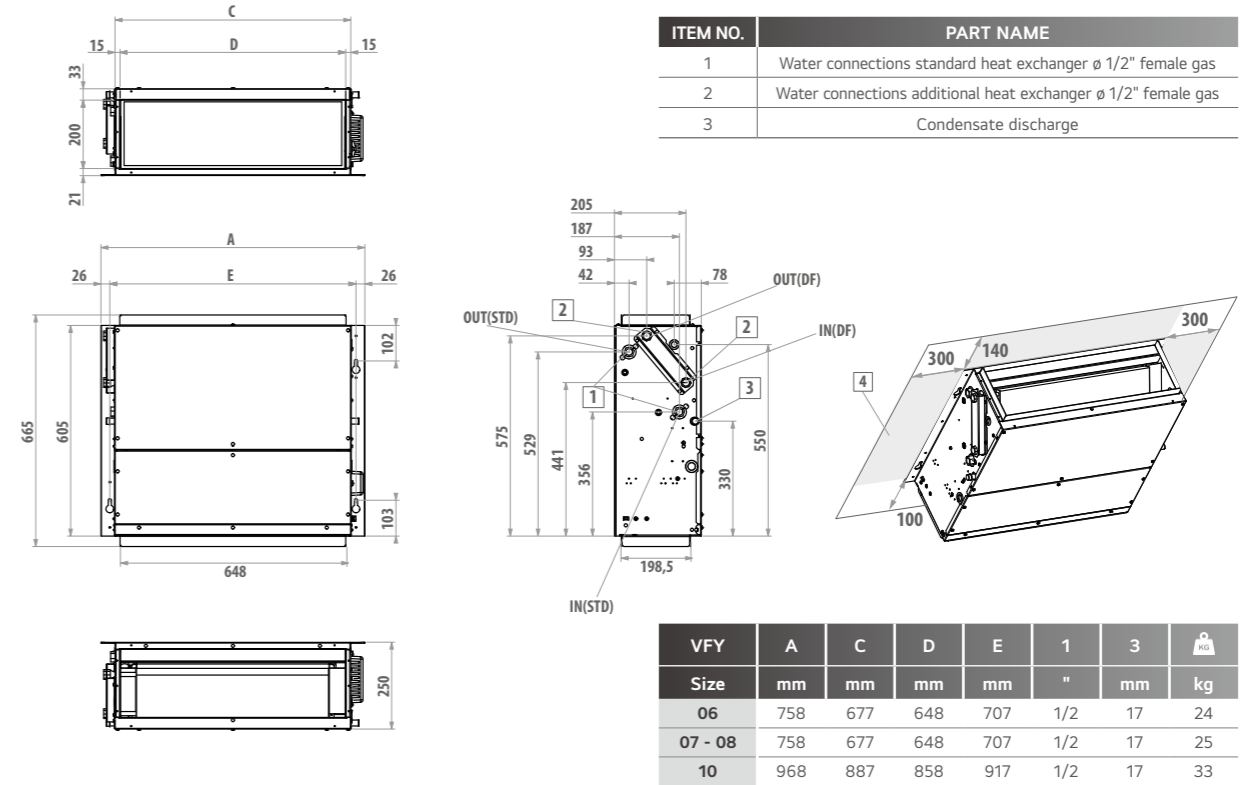
| Model VFY with AC motor | | 06 | | | 07 | | | 08 | | | 10 | | |
|------------------------------------|-------------------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|
| Speed | | min | med | max | min | med | max | min | med | max | min | med | max |
| Declared speed | | 2,5,7 | | | 1,5,7 | | | 1,5,7 | | | 1,6,7 | | |
| Rated airflow | m ³ /h | 109 | 246 | 276 | 171 | 275 | 341 | 171 | 275 | 341 | 195 | 360 | 402 |
| Available static pressure | Pa | 10 | 50 | 63 | 19 | 50 | 77 | 19 | 50 | 77 | 19 | 50 | 63 |
| Power input | w | 24 | 57 | 82 | 34 | 69 | 106 | 34 | 69 | 106 | 34 | 85 | 106 |
| Total cooling capacity | (1) kW | 0.92 | 1.72 | 1.90 | 1.27 | 1.90 | 2.27 | 1.36 | 2.11 | 2.53 | 1.57 | 2.69 | 2.96 |
| Sensible cooling capacity | (1) kW | 0.61 | 1.21 | 1.34 | 0.89 | 1.34 | 1.59 | 0.93 | 1.44 | 1.73 | 1.07 | 1.86 | 2.03 |
| FCEER class | | D | | | | | | | | | | | |
| Waterflow | (2) 1/h | 160 | 306 | 340 | 222 | 339 | 408 | 239 | 374 | 453 | 274 | 476 | 527 |
| Water pressure drop | (2) kPa | 2 | 5 | 6 | 3 | 6 | 8 | 4 | 8 | 12 | 3 | 7 | 9 |
| Heating capacity | (3) kW | 0.88 | 1.81 | 1.99 | 1.33 | 1.98 | 2.35 | 1.40 | 2.20 | 2.68 | 1.59 | 2.80 | 3.10 |
| FCCOP class | | D | | | | | | | | | | | |
| Water flow | (3) 1/h | 153 | 315 | 346 | 231 | 345 | 408 | 244 | 382 | 466 | 276 | 488 | 538 |
| Water pressure drop | (3) kPa | 1 | 4 | 5 | 2 | 5 | 7 | 3 | 7 | 10 | 2 | 6 | 8 |
| Standard coil - number of rows | | 3 | | | 3 | | | 4 | | | 4 | | |
| Total sound power level | (4) dB(A) | 28 | 49 | 52 | 39 | 48 | 54 | 39 | 48 | 54 | 39 | 50 | 54 |
| Inlet + radiated sound power level | (4) dB(A) | 26 | 47 | 50 | 37 | 46 | 52 | 37 | 46 | 52 | 37 | 48 | 52 |
| Outlet sound power level | (4) dB(A) | 25 | 46 | 49 | 36 | 45 | 51 | 36 | 45 | 51 | 36 | 47 | 51 |

| Model VFY with AC motor | | 15 | | | 18 | | | 24 | | |
|------------------------------------|-------------------|-------|------|------|-------|------|------|-------|-------|-------|
| Speed | | min | med | max | min | med | max | min | med | max |
| Declared speed | | 1,6,7 | | | 1,6,7 | | | 5,6,7 | | |
| Rated airflow | m ³ /h | 333 | 687 | 760 | 333 | 687 | 760 | 1,050 | 1,163 | 1,289 |
| Available static pressure | Pa | 12 | 50 | 61 | 12 | 50 | 61 | 40 | 50 | 60 |
| Power input | w | 76 | 167 | 192 | 76 | 167 | 192 | 235 | 280 | 332 |
| Total cooling capacity | (1) kW | 2.22 | 4.22 | 4.63 | 2.44 | 4.79 | 5.23 | 6.15 | 6.66 | 7.21 |
| Sensible cooling capacity | (1) kW | 1.60 | 3.09 | 3.39 | 1.70 | 3.33 | 3.64 | 4.51 | 4.88 | 5.29 |
| FCEER class | | D | | | | | | | | |
| Waterflow | (2) 1/h | 394 | 753 | 828 | 432 | 850 | 930 | 1,095 | 1,191 | 1,295 |
| Water pressure drop | (2) kPa | 2 | 7 | 8 | 3 | 10 | 12 | 13 | 16 | 18 |
| Heating capacity | (3) kW | 2.54 | 4.76 | 5.17 | 2.63 | 5.03 | 5.49 | 6.68 | 7.22 | 7.80 |
| FCCOP class | | D | | | | | | | | |
| Water flow | (3) 1/h | 442 | 827 | 898 | 457 | 875 | 955 | 1,162 | 1,256 | 1,357 |
| Water pressure drop | (3) kPa | 2 | 7 | 8 | 3 | 9 | 11 | 12 | 14 | 16 |
| Standard coil - number of rows | | 3 | | | 4 | | | 3 | | |
| Total sound power level | (4) dB(A) | 38 | 55 | 58 | 38 | 55 | 58 | 61 | 63 | 69 |
| Inlet + radiated sound power level | (4) dB(A) | 36 | 53 | 56 | 36 | 53 | 56 | 59 | 61 | 67 |
| Outlet sound power level | (4) dB(A) | 35 | 53 | 55 | 35 | 52 | 55 | 58 | 60 | 66 |

(1) Water temperature 7 / 12°C, air temperature D.B. 27°C, W.B. 19°C (47% relative humidity) according to EN1397:2015
 (2) Water temperature 7 / 12°C, air temperature D.B. 27°C, W.B. 19°C (47% relative humidity)
 (3) Water temperature 45 / 40°C, air temperature 20°C
 (4) Sound power measured according to standards ISO 3741 and ISO 3742
 Power supply 230-1-50 (V-ph-Hz)

VFY MODEL DUCT UNITS DIMENSIONAL DRAWING

(Unit : mm)

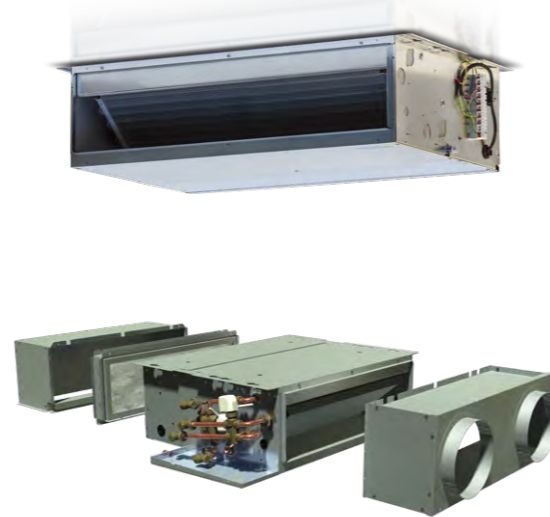


VFZ MODEL HIGH-HEAD DUCT UNITS

Flexible installation profiles to accommodate your every need

The VFZ range of thermal ventilating units has been developed for air conditioning rooms where the use of ducted hydronic indoor units capable of assuring available heads of up to 180 Pa and cooling capacities of 3 to 23 kW is required. The units are characterised by a high flexibility of installation, as they can in fact be positioned either vertically or horizontally and the orientation of the air intake in the rear or front part of the unit itself can be modified by simply moving the inspection panel. All units have a standard configuration for the intake of fresh air and slots for rapidly fixing them to the wall or ceiling.

Their reduced height (280 mm for size 24 and 350 mm for larger sizes) enables them to be accommodated in normal false ceiling and the availability of a wide range of plumbing and ventilation accessories makes it easy to integrate them into air conditioning systems. The units are available in standard and high-efficiency models, depending on the finned block exchanger used, so that they can be better adapted to the needs of the room to be air-conditioned.



VFZ MODEL MAIN COMPONENTS



Structure

Made of galvanized sheet steel insulated with sound-deadening, heat-insulating, self-extinguishing closed-cell material to reduce noise emissions and prevent the formation of condensation the outside surface.



Condensation Collection & Drainage System

It consists of two insulated galvanized sheet steel trays designed for horizontal and vertical installation.



Heat Exchanger

It is composed of copper tubing and aluminium fins fixed by expansion. The water connections are reversible. An additional exchanger is available for installing the unit in 4-pipe systems.



Electric Motor

Three-speed electrical motor, mounted on vibration damping couplings, directly connected to the fans, with permanently activated capacitor and winding thermal protection.



Fan

The aluminium fans are of the centrifugal type, with double suction and staggered blades to reduce noise emissions. They are statically and dynamically balanced to minimize the stresses transmitted to the motor shaft.



Filter Module

The air filter, made of regenerable acrylic fibre, is available as an accessory in filtration classes G2 or G4.

VFZ MODEL ACCESSORIES

| ACCESSORIES | |
|---|--|
| Electromechanical control panels | Air inlet and outlet grilles |
| Recess wall-mounted speed switch | Aluminium air intake grille, with frame |
| Circuit board for connection of UTN 30-30A-40-40A to control panels. | Aluminium air outlet grille with 2-row fins and subframe |
| Electromechanical room thermostat with summer/winter selection | Air intake grille with subframe |
| Thermostat for minimum water temperature in heating mode (42 °C) | Air intake grille with subframe and filter |
| Wall mounted control with speed selector, thermostat and summer-winter selector | External air intake louvers |
| Wall mounted control with speed selector and thermostat | Motor-driven external air intake louver |
| Electronic microprocessor control panels with display | Valves |
| Finishing plate for LED 503 controller, RAL9005 black | 2-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main and additional heat exchanger |
| Finishing plate for LED 503 controller, RAL7031 grey | 2-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger |
| Finishing plate for LED 503 controller, RAL9003 white | 3-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for additional heat exchanger |
| MY COMFORT controller spacer for wall mounting | 2-way valves, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger |
| 2.8" touch screen user interface for EVO control | 2-way valves pressure independent, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger |
| Circuit board for EVO control | Plenum, air intake modules, air inlet and outlet connectors and cabinets |
| User interface with display for EVO controller | 90° connection for intake/delivery |
| Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone | Air intake module with G2 air filter |
| Recessed wall-mounted electronic display controller LED 503 | Air intake module with G4 air filter |
| MYCOMFORT BASE electronic controller with display | Junction panel with rectangular duct |
| Microprocessor control with display MY COMFORT LARGE | Junction panel with flexible circular duct Ø 200 |
| MYCOMFORT MEDIUM electronic controller with display | Flexible ducts - caps |
| Humidity sensor for MY COMFORT (medium e large), EVO | Not insulated flexible ducts, Ø 200 mm (6m length indivisible) |
| Water sensor for MYCOMFORT and EVO controllers | Insulated flexible ducts, Ø 200 mm (6m length indivisible) |
| Electronic microprocessor control panels | Plastic cap Ø 200 mm |
| Electronic controller for AC fan control and one ON/OFF 230 V valve | Air inlet and outlet plenum box |
| Electronic controller for AC fan control and two ON/OFF 230 V valves | Air Inlet plenum box with double row grille |
| Water temperature sensor for TED controls | Air Inlet plenum box with double row grille 300 x 600 mm and filter G2 |
| Power interface and regulating louver controllers | Insulated air outlet plenum box with grille |
| Recess mounted controller for opening and closing the SM motor-driven regulating louver | Accessories |
| Power interface for connecting in parallel up to 4 fan coil units to the one controller | Hot water post-heating exchanger kit |
| Auxiliary water drip trays, insulating shell, condensate drainage pump | Auxiliary water drip tray for horizontal installation units |
| Condensate drainage pump kit | Auxiliary water drip tray for vertical installation units |
| Electrical heating elements | Sanitisation system |
| Heating element with installation kit, relay box and safety devices | Sanitizing module JONIX™ (ducted installation) |
| | Sanitizing module JONIX™ (installation on plenum) |

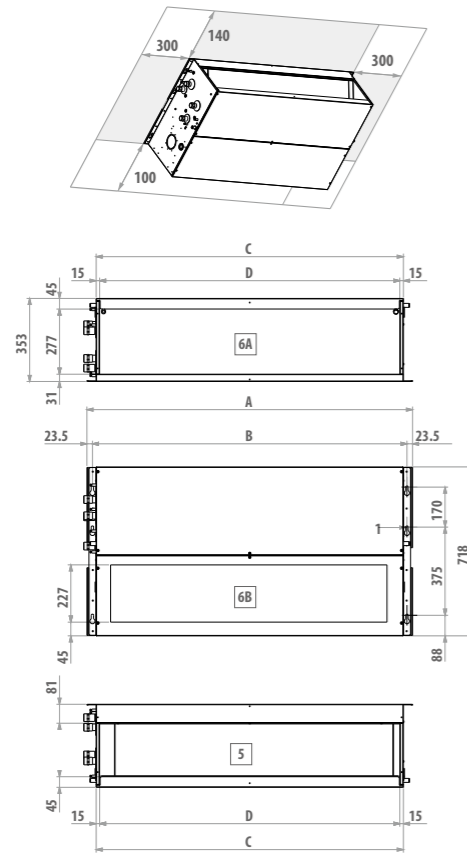
VFZ MODEL RATED TECHNICAL DATA

| Model VFZ with AC motor | 24 | | | 40 | | | 54 | | | 76 | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fan speed | min | med | max | min | med | max | min | med | max | min | med | max | |
| Air flow | m³/h | 1,208 | 1,384 | 1,609 | 1,485 | 1,898 | 2,380 | 2,092 | 2,641 | 3,206 | 3,067 | 3,622 | 4,287 |
| Available static pressure | Pa | 38 | 50 | 67 | 30 | 50 | 78 | 31 | 50 | 74 | 36 | 50 | 71 |
| Power input | W | 290 | 380 | 505 | 370 | 535 | 750 | 870 | 1,090 | 1,300 | 650 | 820 | 1,150 |
| Total cooling capacity (1) | kW | 6.32 | 7.01 | 7.83 | 8.79 | 10.7 | 12.6 | 12.5 | 14.9 | 17.2 | 18.0 | 20.4 | 23.2 |
| Sensible cooling capacity (1) | kW | 5.14 | 5.77 | 6.55 | 6.73 | 8.28 | 9.98 | 9.48 | 11.5 | 13.5 | 14.0 | 16.1 | 18.6 |
| Water flow(1) | l/h | 1,085 | 1,202 | 1,344 | 1,509 | 1,827 | 2,163 | 2,145 | 2,561 | 2,953 | 3,082 | 3,505 | 3,979 |
| Water pressure drop (1) | kPa | 17 | 20 | 24 | 15 | 21 | 29 | 21 | 29 | 37 | 16 | 20 | 25 |
| Heating capacity (2) | kW | 7.74 | 8.52 | 9.46 | 10.8 | 13.0 | 15.3 | 15.2 | 18.1 | 20.8 | 22.4 | 25.4 | 28.7 |
| Water pressure drop (2) | kPa | 13 | 16 | 20 | 12 | 17 | 23 | 17 | 23 | 30 | 16 | 20 | 25 |
| Additional coil heating capacity DF (3) | kW | 8.01 | 8.53 | 9.13 | 12.3 | 14.4 | 16.4 | 16.9 | 19.5 | 21.9 | 21.9 | 24.3 | 27.1 |
| Water flow (3) | l/h | 703 | 749 | 801 | 1,080 | 1,260 | 1,441 | 1,481 | 1,711 | 1,925 | 1,918 | 2,132 | 2,379 |
| Water pressure drop (3) | kPa | 10 | 11 | 13 | 8 | 10 | 13 | 11 | 14 | 17 | 12 | 15 | 18 |
| Standard coil - number of rows | n° | 3 | | | 3 | | | 4 | | | 5 | | |
| Additional coil DF - number of rows | n° | 1 | | | 2 | | | 2 | | | 2 | | |
| Total sound power level (4) | dB(A) | 62 | 67 | 72 | 60 | 67 | 74 | 69 | 73 | 78 | 70 | 74 | 79 |
| Inlet + radiated sound power level (4) | dB(A) | 60 | 64 | 70 | 58 | 65 | 72 | 67 | 71 | 76 | 68 | 72 | 77 |
| Outlet sound power level (4) | dB(A) | 58 | 63 | 69 | 57 | 64 | 71 | 66 | 70 | 75 | 67 | 71 | 76 |

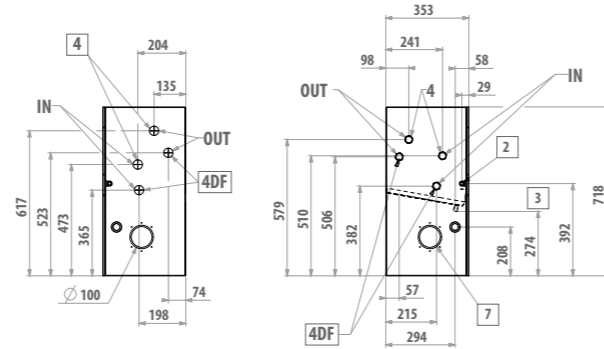
(1) Water temperature 7 / 12°C, air temperature D.B. 27°C, W.B. 19°C (47% relative humidity)
 (2) Inlet water temperature 50°C, water flow rate same as in cooling mode, air temperature 20°C
 (3) Water temperature 70 / 60°C, air temperature 20°C
 (4) Sound power measured according to standards ISO 3741 and ISO 3742
 Power supply 230-1-50 (V-ph-Hz)

VFZ MODEL DUCT UNITS DIMENSIONAL DRAWING

(Unit : mm)

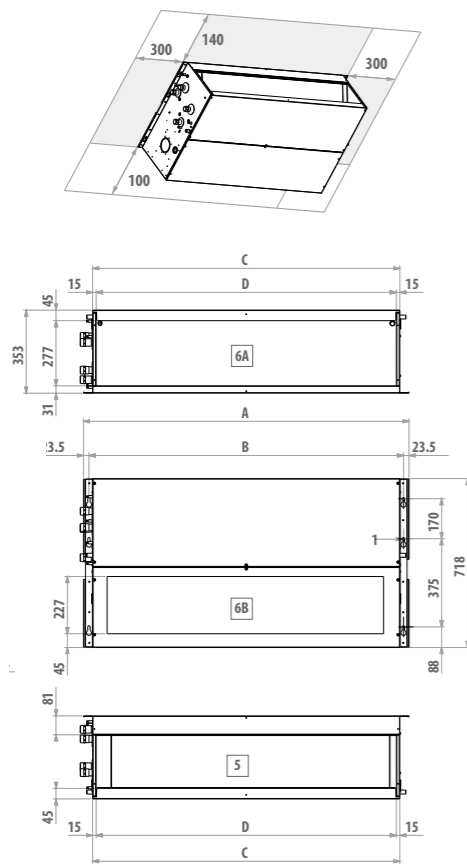


| ITEM NO. | PART NAME |
|----------|---|
| 1 | No. 6 quick-coupling slots |
| 2 | Condensate drainage horizontal installation |
| 3 | Condensate drainage vertical installation |
| 4 | Water connections on the right |
| 4DF | Water connections additional heat exchanger |
| 5 | Air outlet |
| 6 | Air intake |
| 6-A | supply condition |
| 6-B | modifiable during installation |
| 7 | Circular pre-cut slot (Ø 100 mm) for intake of external air |

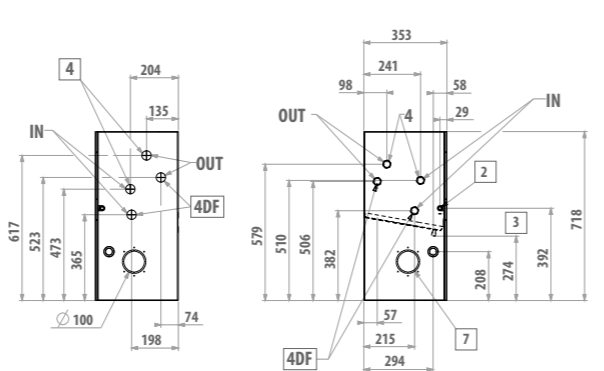


| VFZ | A | B | C | D | 4 | 4DF | 2 | 3 | Weight |
|------|-------|-------|-------|-------|-----|-----|----|----|--------|
| Size | mm | mm | mm | mm | " | " | mm | mm | kg |
| 24 | 1,174 | 1,127 | 1,096 | 1,066 | 3/4 | 3/4 | 17 | 17 | 49 |

(Unit : mm)



| ITEM NO. | PART NAME |
|----------|---|
| 1 | No. 6 quick-coupling slots |
| 2 | Condensate drainage horizontal installation |
| 3 | Condensate drainage vertical installation |
| 4 | Water connections on the right |
| 4DF | Water connections additional heat exchanger |
| 5 | Air outlet |
| 6 | Air intake |
| 6-A | supply condition |
| 6-B | modifiable during installation |
| 7 | Circular pre-cut slot (Ø 100 mm) for intake of external air |



| VFZ | A | B | C | D | 2 | 3 | 4 | 4DF |
|------|-------|-------|-------|-------|----|----|---|-----|
| Size | mm | mm | mm | mm | mm | mm | " | " |
| 40 | 1,174 | 1,127 | 1,096 | 1,066 | 17 | 17 | 1 | 1 |
| 54 | 1,384 | 1,337 | 1,306 | 1,276 | 17 | 17 | 1 | 1 |
| 76 | 1,594 | 1,547 | 1,516 | 1,486 | 17 | 17 | 1 | 1 |

4 Way Cassette

With flexible design and convenience in mind, the 4 Way cassette comprises a comprehensive combination of technologically advanced functions to provide maximum comfort in any space.

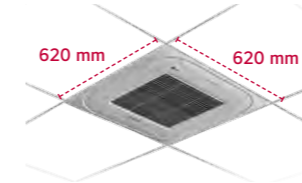


Stylish Design Panel (U-style 4 Way cassette)

New 4 Way cassette panel adapted a unibody shape and fits into the ceiling cell size.

Compact Size

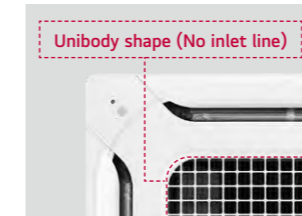
Panel size is fit into the ceiling tile.



Interior Fit



Lineless Surface



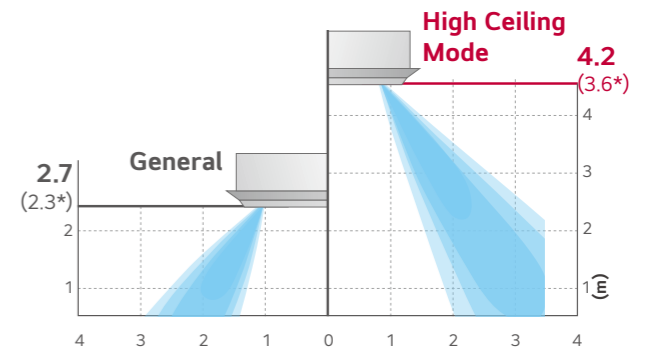
Detachable Corner



※ U-Style panel corresponds to the PT-QAGWO panel for WF4A01B / 027 / 032 / 041CG0A models.

High Ceiling Mode

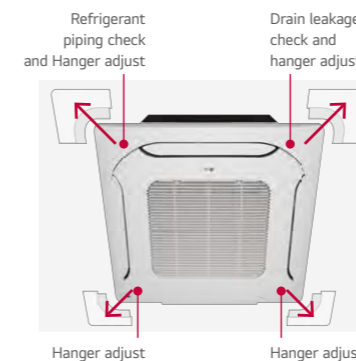
Airflow in a space with a 4.2m ceiling height is possible with this indoor unit. Furthermore, air flow can be strengthened by adjusting the fan speed.



Convenient Panel Installation

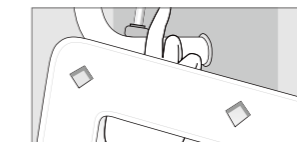
The detachable corner design makes it easy to adjust the hanger during installation and helps to easily check leakages in the drain connection pipe. Moreover, button type holder design makes it is easy to install the panel to the body.

Detachable Corner Design

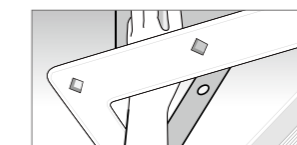


※ The detachable corner design is only applicable to the U-Style panel.

Drain Leakage Check



Hanger Adjust



One Push Panel



