





CHILLER



INVERTER SCROLL CHILLER


Capacity (kW)		65	74	114	130	148	171	195	222
*18 Heat Pump Model (ACHH *** LBAB)									
	Capacity (Kw)	65	74	114	130	148	171	195	222
	Cooling	65	74	114	130	148	171	195	222
	Heating	70.3	82	120	140.6	164	180	210.9	246
Range of Unit Control	Up to 1,110 kW (5 CHILLERS) by AC Smart Controller 								
	Up to 1,110 kW (5 CHILLERS) by HMI Touch controller 								
	Up to 2,220 kW (10 CHILLERS) by ACP (Advanced Control Platform) 								

* Central controller ACP, AC Smart controller are option.

FCU

		(kW)*	1.8	2.7	3.2	4.1	6	7.2	9	10.5	13
		(kBtu/h)	6k	9k	11k	14k	20k	24k	30k	36k	44k
4 Way Cassette 			●	●	●	●	●	●	●	●	●
Ceiling Mounted 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)*	1.5	1.8	2.5	3.2	3.9	5.5	6.6
		(kBtu/h)	4k	6k	9k	11k	13k	17k	22k
Low ESP Duct 			●	●	●	●	●	●	●
Ceiling Mounted 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) PREMTB111 (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) PREMTB011 (Black)	 PDRYCB320 (for Thermostat)	 Multi-tenant Power Module PINPMB001	 Nipple (2EA, MPT 3/4", MPF 3/4")	 Strainer (1EA, FPF 3/4", #30)
 Simple PQRCLQ0 (W) PQRCHA0Q (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 ²⁾ (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

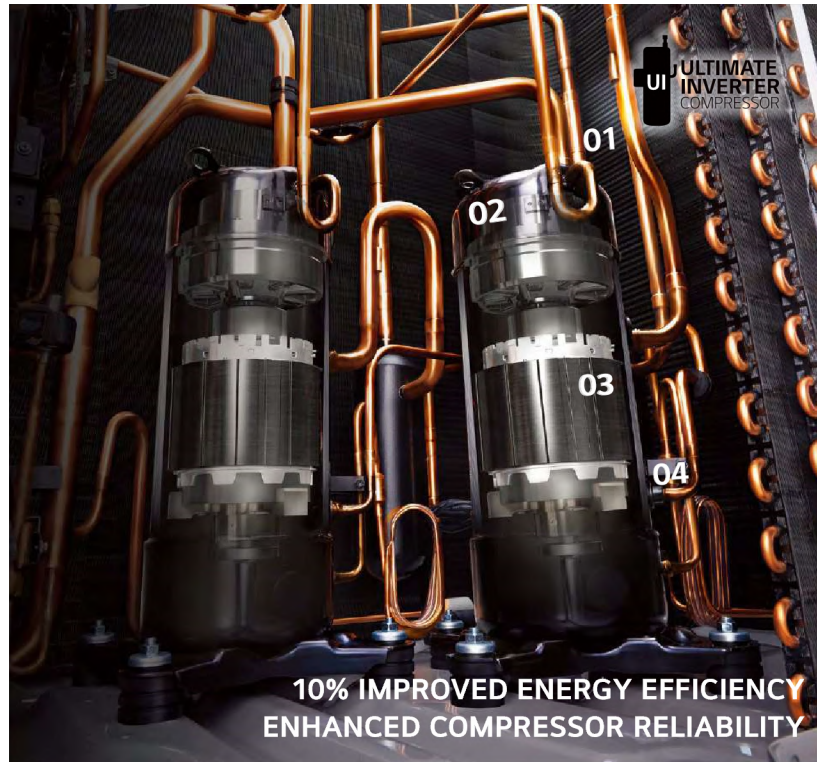
Newly invented system motivated by PEEK (Polyetheretherketone) bearing used for aero engine to increase operation range and durability

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

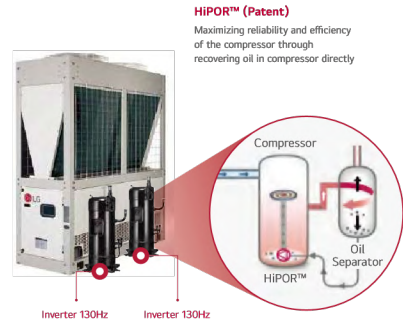


All Inverter Scroll Compressor

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

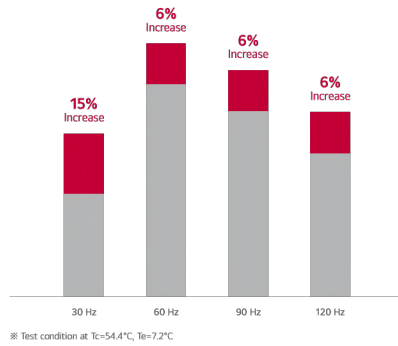
All Inverter System

Wide operation frequency range 30 - 130Hz



Compressor Efficiency

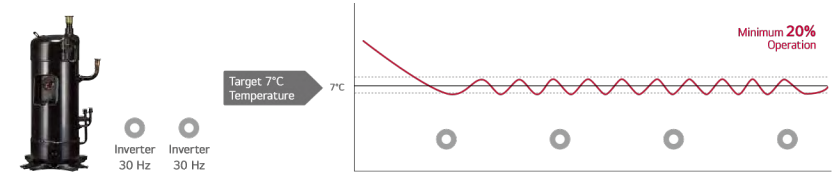
Compressor efficiency by Hz is increased through HIPOR™ application



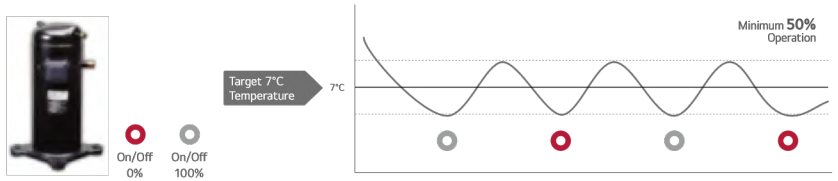
Lower Load Operation

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

LG Inverter Scroll Compressor



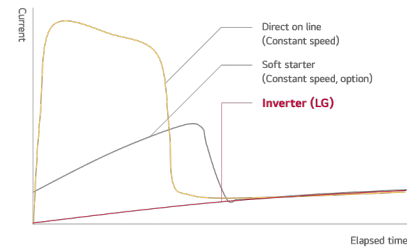
Normal On/Off Multi Compressor System



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**

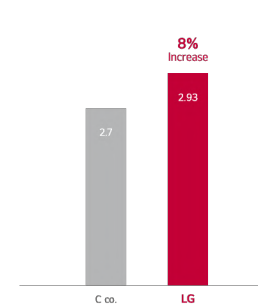
** Power factor : Ratio between active power(kW) and total power(kVA)

High Energy Efficiency

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

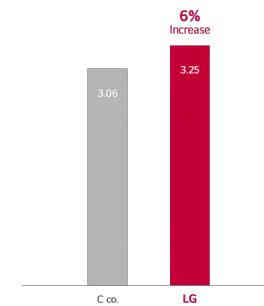
Cooling Performance

EER

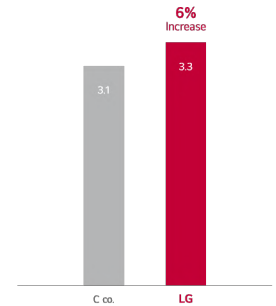


Heating Performance

COP



SCOP

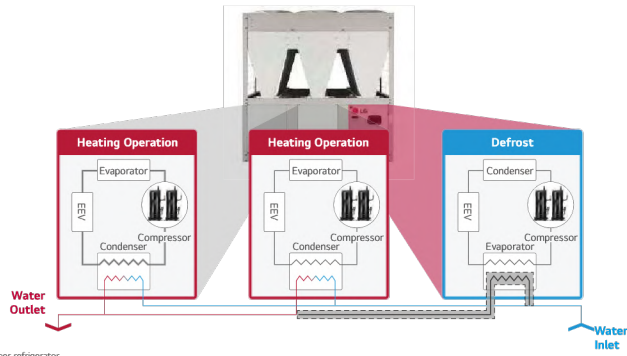


※ 65 kW Heat pump model comparison

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

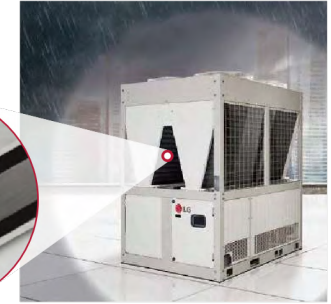
Hydrophilic Coating

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



Take much service time and undergo trial and error

With Black Box Function

Search for the failure cause conveniently using recorded data

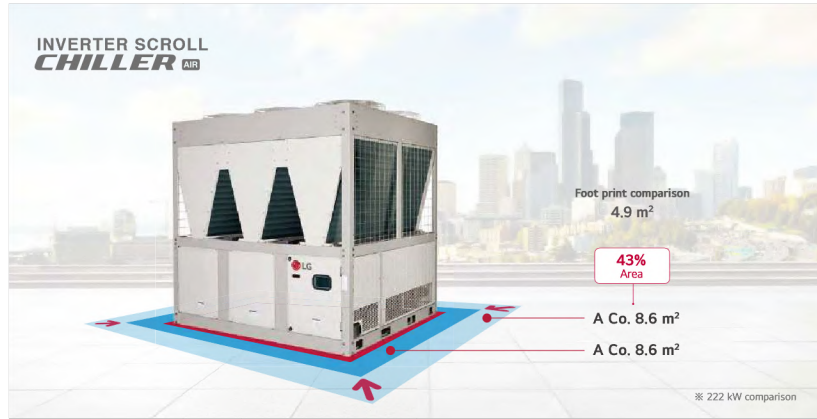


Save service time and diagnose it more accurately



Compact Size

Compact size reduces concern about installation and service space.



Low Noise Level

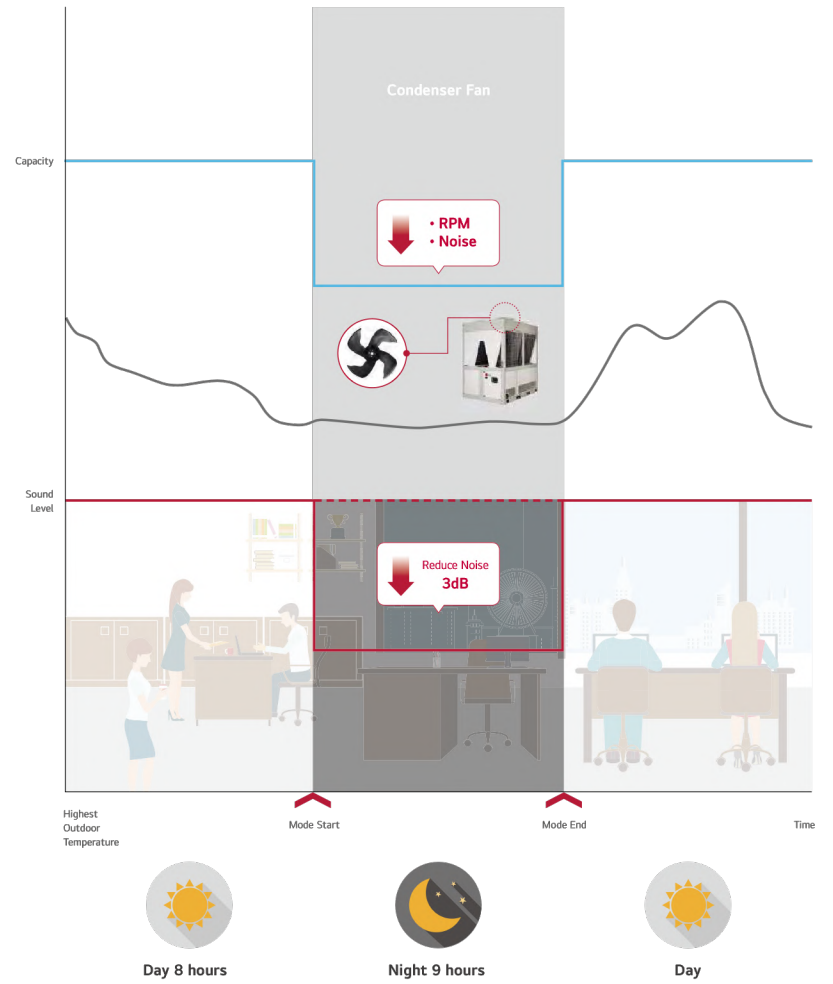
Lower noise can reduce noise pollution and provide a quieter environment.

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		PhaseLines/V	ACHH020LBAB	ACHH023LBAB	ACHH033LBAB	ACHH040LBAB
			H/P	H/P	H/P	H/P
Power			3,4,380-415	3,4,380-415	3,4,380-415	3,4,380-415
Capacity	Cooling	PhaseLines/V	65	74	114	130
		RT	18.5	21	32.4	37
	Heating	kW	70.3	82	120	140.6
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*		dB(A)	67	68	68	68
Sound Power	Cooling	dB(A)	86	87	87	90
	Heating	dB(A)	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
Refrigerant	Amount of Charged	Kg	7.0 kg x 2	7.0 kg x 2	7.0 kg x 4	7.0 kg x 4
	Type		plate	plate	plate	plate
	Pressure Drop	kPa	21.5	28.7	18.7	21.5
Evaporator	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	W	kg	520	520	970	970
	H	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		PhaseLines/V	ACHH045LBAB	ACHH050LBAB	ACHH060LBAB	ACHH067LBAB
			H/P	H/P	H/P	H/P
Power			3,4,380-415	3,4,380-415	3,4,380-415	3,4,380-415
Capacity	Cooling	PhaseLines/V	148	171	195	222
		RT	42.1	48.6	55.4	63.1
	Heating	kW	164	180	210.9	246
Input Power	Cooling	kW	47	51	60	70
	Heating	kW	54.8	55.2	66.6	82.2
Max Operating Current		A	54.7	52.9	64.9	82
Efficiency	Cooling	W/W	96	108	117	144
	Heating	W/W	2.70	3.10	2.93	2.70
SEER		W/W	3.00	3.40	3.25	3.00
SCOP		W/W	4.20	4.50	4.40	4.20
Sound Pressure*		dB(A)	3.30	3.30	3.30	3.30
Sound Power	Cooling	dB(A)	68	68	68	68
	Heating	dB(A)	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
Refrigerant	Amount of Charged	Kg	7.0 kg x 4	7.0 kg x 6	7.0 kg x 6	7.0 kg x 6
	Type		plate	plate	plate	plate
	Pressure Drop	kPa	28.7	18.7	21.5	28.7
Evaporator	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	W	kg	970	1,430	1,430	1,430
	H	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

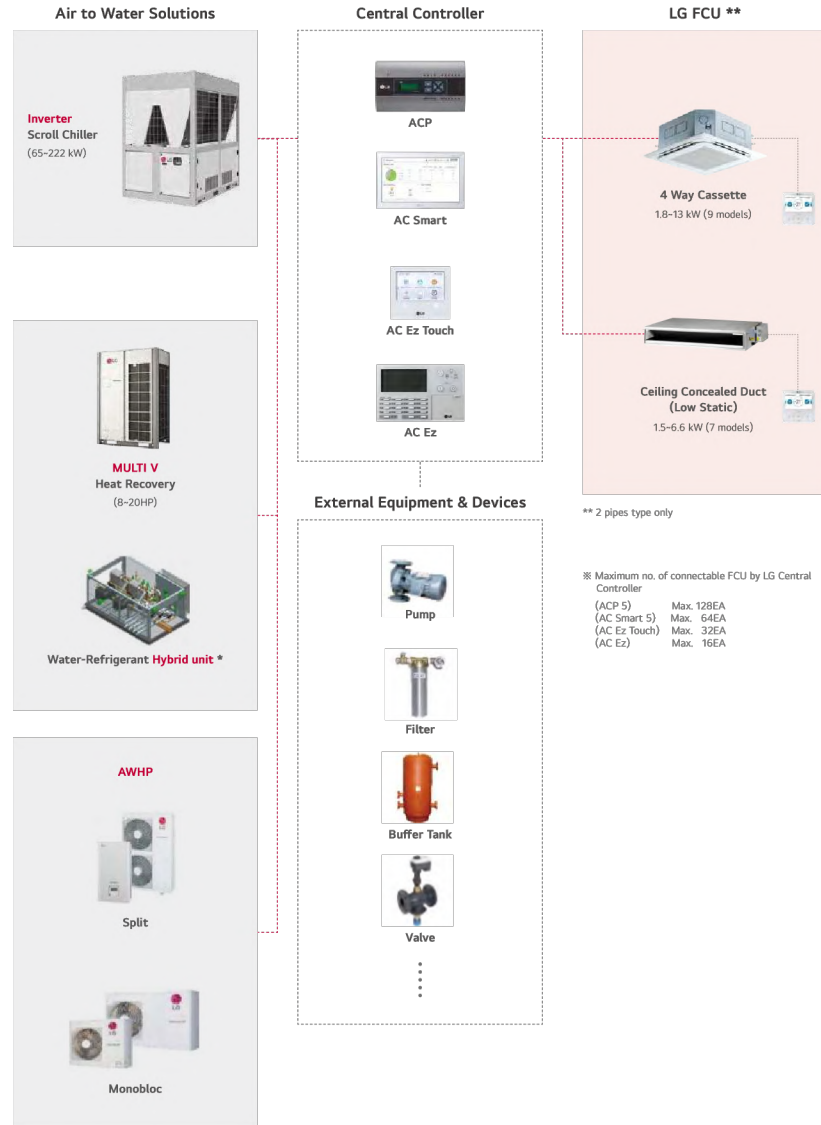
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Heating : Outdoor air temp. 7°C, Water inlet temp. 40°C, Water Outlet temp. 45°C
 - Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.
Sound power level is measured ISO 9614:2009 by sound intensity method. 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.

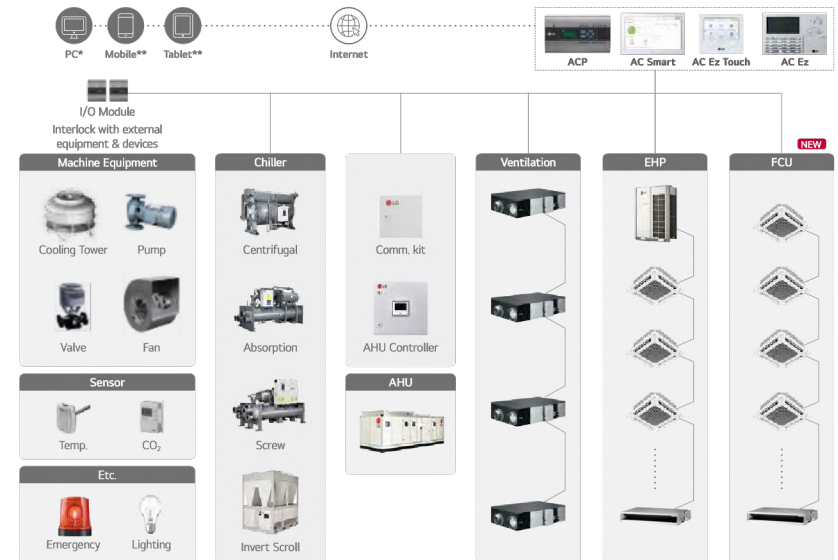


Central Controller

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?

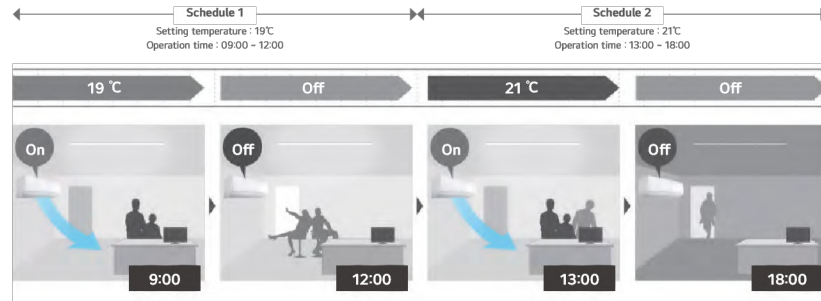
Integrated control of the system can be realized conveniently through the LG central controller. (FCU + Chiller + EHP + ... + External Equipment & Devices)



* 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.

Functions available through group control

- On / Off
- Mode Selection (Cooling / Heating / Fan / Dehumidification)
- Fan Speed (High / Med / Low)
- Time Setting Etc.

Maintaining Clean Walls

Individual Control Group Control

Installation Costs Saving

※ 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.

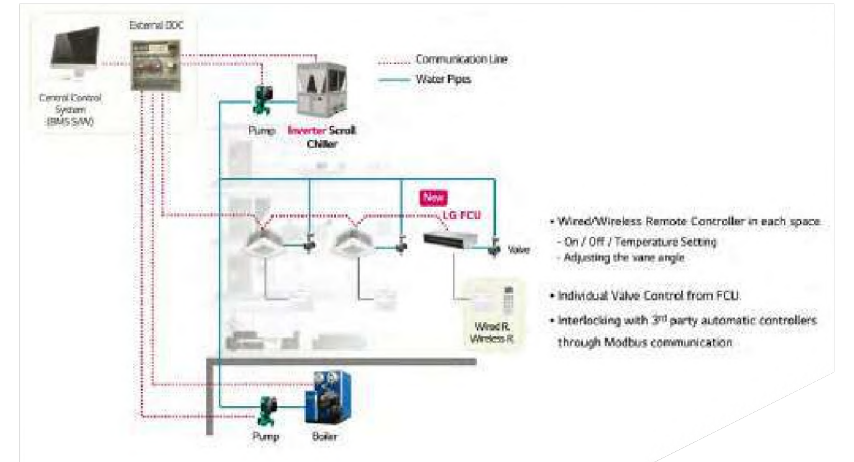
Install / SVC Engineer Wi-Fi MV Module

Cycle Monitoring Diagnosis Installation Smart Management

※ Search "Mobile LGMV" on Google market or App store then download the app.
 ※ Wi-Fi modem (PWFMD0200) 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.





Wi-Fi Remote Control

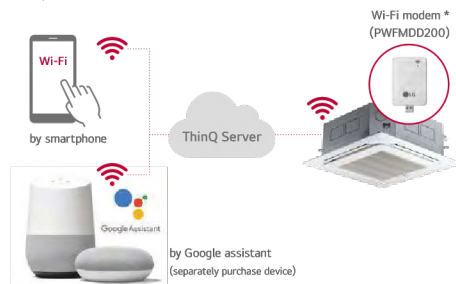
Control your air conditioners using the smart devices as Android or iOS based smartphones and voice commands via Google assistant.



※ Search "ThinQ" on Google market or App store then download the app.
 * Wi-Fi modem (PWFMD0200) is required by option.

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

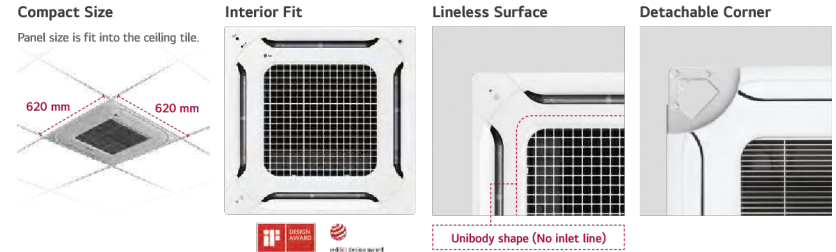
- On / Off **
- Mode Selection **
- Current Temperature **
- Set Temperature **
- Set Fan Speed **
- Vane Control
- Reservation
- Energy Monitoring
- Filter Management
- Smart Diagnosis

** These 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.

Stylish Design Panel (U-style 4 Way cassette)

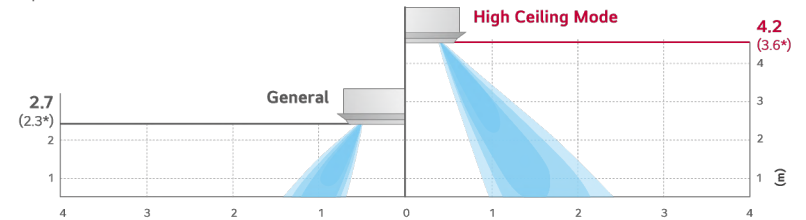
New 4 Way cassette panel adapted a unibody shape and fits into the ceiling cell size.



※ U-Style panel corresponds to the PF-QAGW0 panel for WF4AD018 / 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.

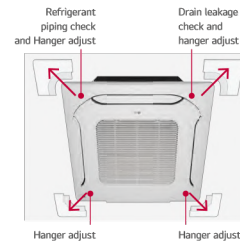


* For models less than 9.0 kW.

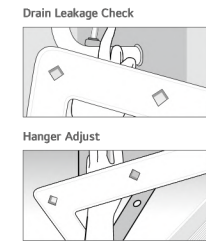
Convenient Panel Installation

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 easy to install the panel to the body.

Detachable Corner Design



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



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)	m ³ /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	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)	mm ² 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)	m ³ /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	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)	mm ² 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	-	-	-	-	-

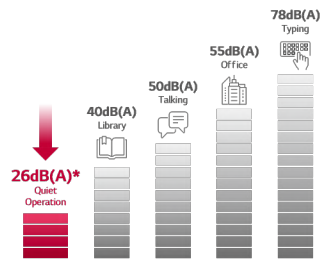


Quiet Operation

The noise level of Low ESP Ducts does not interfere with conversation at all.
Unit : dB(A)

Model	Sound Pressure (High / Medium / Low)
WFC A012RG0A	31 / 30 / 29
WFC A018RG0A	33 / 32 / 31
WFC A025RG0A	31 / 30 / 29
WFC A032RG0A	33 / 32 / 31
WFC A039RG0A	28 / 27 / 26
WFC A055RG0A	31 / 28 / 26
WFC A066RG0A	38 / 34 / 31

* Test condition Temperature : (Cooling) 27°C DB / 19°C WB, 35°C DB / 24°C WB
* Based on Low speed of WFC A039RG0A, WFC A055RG0A model
* Sound level may vary depending on the place or surrounding conditions in which the equipment is installed.

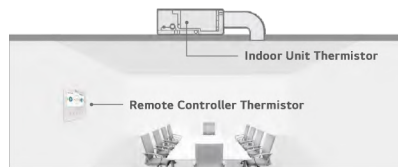


Two Thermistors Control

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.

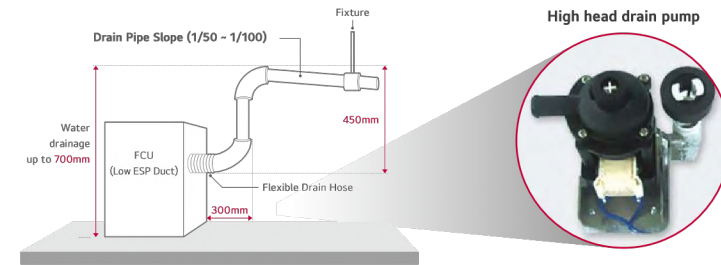
Compares temperatures sensed from different positions, and automatically selects the optimal temperature for users.

※ Need to connect the wired remote controller.



High Head Drain Pump

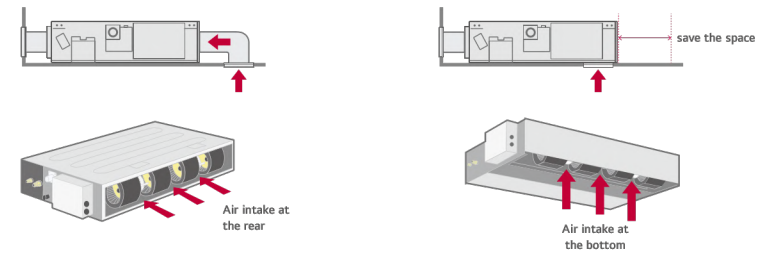
High head drain pump automatically drains water up to a height of 700mm of drain-head height.



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

Flexible Installation

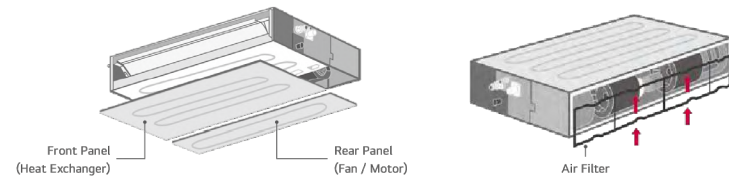
LG's Low ESP Duct FCU allows air intake from the rear or the bottom sides according to requirements.



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.



WFCOA012RG0A / WFCOA018RG0A
WFCOA025RG0A / WFCOA032RG0A



INDOOR		WFCOA012RG0A	WFCOA018RG0A	WFCOA025RG0A	WFCOA032RG0A		
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)	
Capacity	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	
Water Flow Rate	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	
	Head Loss	Heating	Condition A	4.4	8.5	12.5	17.8
			Condition B	2.0	3.5	6.9	11.4
Power Input	Nominal	8	17	20	27		
Running Current	Nominal	0.29	0.31	0.32	0.35		
Fan	Type	-	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		
	Drive	-	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		
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)		
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)	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		

WFCOA039RG0A / WFCOA055RG0A
WFCOA066RG0A



INDOOR		WFCOA039RG0A	WFCOA055RG0A	WFCOA066RG0A		
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)	
Capacity	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	
Water Flow Rate	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	
	Head Loss	Heating	Condition A	30.3	48.3	71.7
			Condition B	30.3	48.3	71.7
Power Input	Nominal	29	44	81		
Running Current	Nominal	0.37	0.44	0.71		
Fan	Type	-	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		
	Drive	-	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	26.2	
	Shipping	kg	30.7	30.7	30.7	
Air Filter	Type	-	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)		
Connecting Pipes	Outlet	-	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		



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.



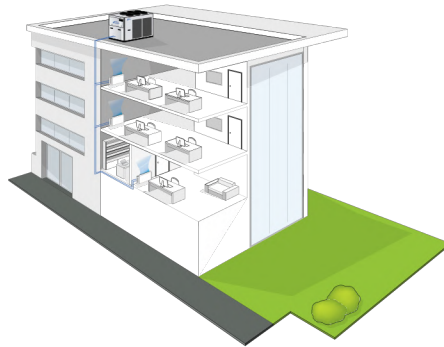
Designed to Meet Your Needs

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.

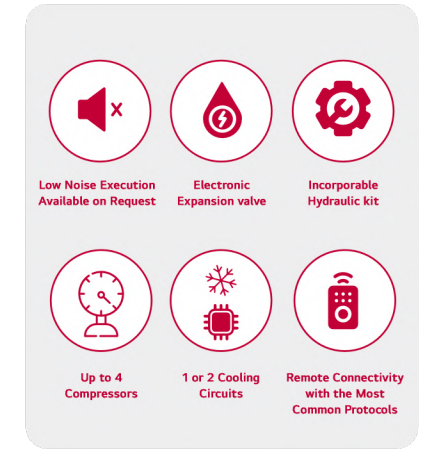


Heat pumps and water chillers are designed for heating or cooling the water to be used in air-conditioning systems for residential, commercial or industrial use.

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***BYGA		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 ANTI-FREEZING 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	GCAS025BYGA	GCAS030BYGA	GCAS035BYGA	GCAS040BYGA	GCAS045BYGA	GCAS050BYGA	
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	GCAS055BYGA	GCAS070BYGA	GCAS075BYGA	GCAS080BYGA	GCAS090BYGA	GCAS100BYGA	
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	m ³ /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	m ³ /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

GCHS 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

GCHS 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

GCHS Z		GCHS0208ZGA	GCHS0258ZGA	GCHS0308ZGA	GCHS0358ZGA	GCHS0408ZGA	GCHS0458ZGA
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	m ³ /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	m ³ /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

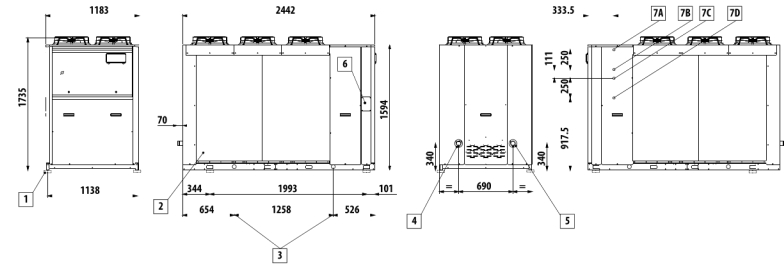
LG GC SCROLL CHILLERS TECHNICAL DATA

GCFS Z		GCFS0708ZGA	GCFS0758ZGA	GCFS0808ZGA	GCFS0908ZGA
Cooling Capacity (1)	kW	225.50	256.50	256.90	300.10
Cooling Capacity [UN14511]	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 [UN14511]	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 [UN14511]		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

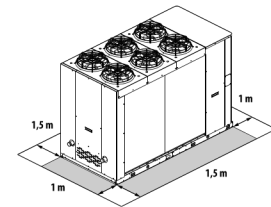
(1) Cooling capacity Water 0% glycol 7-12°C OA 35°C
 (2) Heating capacity Water 0% glycol 40-45°C OA 7°C 89%RH

FRAME 2

(Unit : mm)

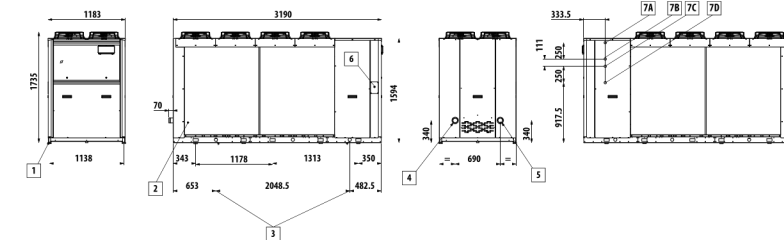


ITEM NO.	PART NAME
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2")
5	Water outlet (Victaulic 2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet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

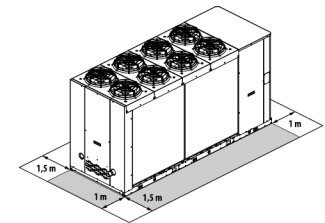


FRAME 3

(Unit : mm)

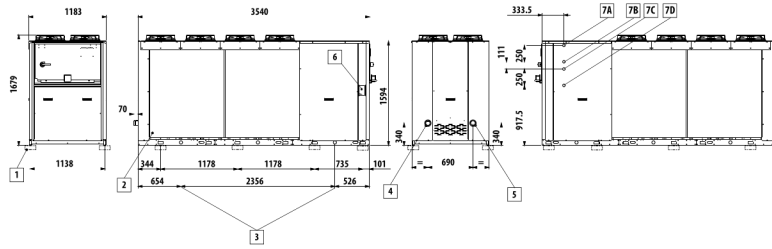


ITEM NO.	PART NAME
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2")
5	Water outlet (Victaulic 2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet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

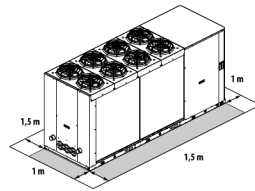


FRAME 3+

(Unit : mm)

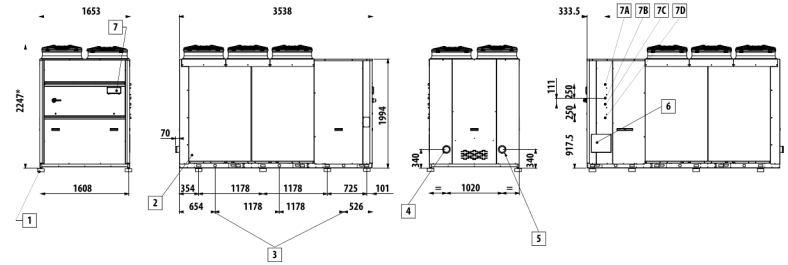


ITEM NO.	PART NAME
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2")
5	Water outlet (Victaulic 2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet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

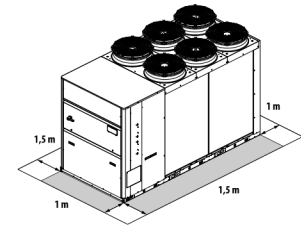


FRAME 5

(Unit : mm)

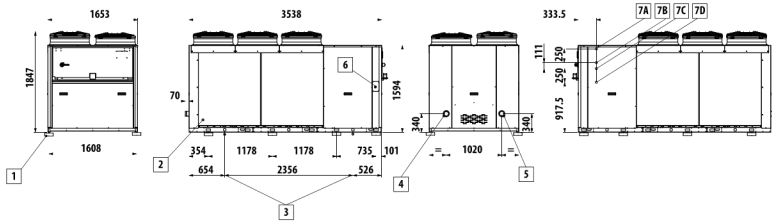


ITEM NO.	PART NAME
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2")
5	Water outlet (Victaulic 2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet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

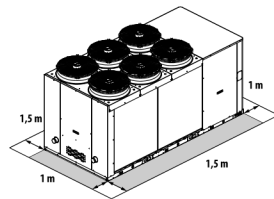


FRAME 4

(Unit : mm)

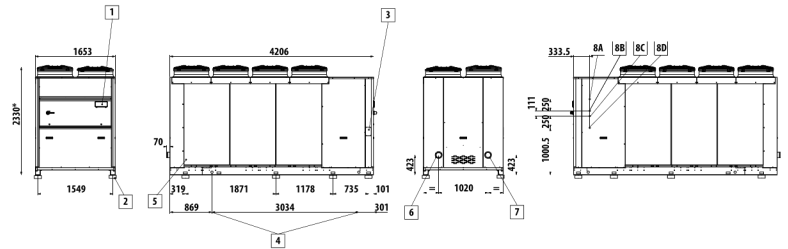


ITEM NO.	PART NAME
1	Vibration dampers
2	Protection grill (optional)
3	Lifting points
4	Water inlet (Victaulic 2")
5	Water outlet (Victaulic 2")
6	Power supply input
7A	Heat recovery water outlet (1"), left-hand circuit
7B	Heat recovery water inlet (1"), left-hand circuit
7C	Heat recovery water outlet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

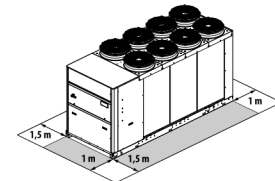


FRAME 6

(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.

VFU 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 louvre controllers	
On-board speed switch	Valves
Recess wall-mounted speed switch	2-way valve, ON/OFF actuator, 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 heat exchanger
Additional heat exchanger for 4-pipe systems	2-way valve, ON/OFF actuator, 24 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, ON/OFF actuator, 230 V power supply, hydraulic kit on water connection side for main and additional 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 heat exchanger
Auxiliary water drip tray for horizontal installation fan coil units	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 vertical installation fan coil units	2-way valve, ON/OFF actuator, 230 V power supply, complete hydraulic kit for additional heat exchanger
Insulating shell for VKS valve, water connections on the left	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 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, ON/OFF actuator, 230 V power supply, hydraulic kit without holder, for additional heat exchanger
Pair of support covering elements for VFL	3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for additional 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 additional heat exchanger
Rear covering panels	3-way valve, MODULATING actuator, 24 V power supply, complete hydraulic kit for additional heat exchanger
Rear painted panel for horizontal installation with cabinet	3-way valve, MODULATING actuator, 24 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 main heat exchanger
Electrical heating elements	3-way valve, MODULATING actuator, 24 V power supply, hydraulic kit without holder, for main heat exchanger
Heating element with installation kit, relay box and safety devices	3-way valve, ON/OFF actuator, 1230 V power supply, complete hydraulic kit for main heat exchanger
Air inlet and outlet grilles	3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger
Aluminium external air intake grille with subframe	3-way valve, ON/OFF 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, 24 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, complete hydraulic kit 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, complete hydraulic kit 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, complete hydraulic kit for main heat exchanger
Angular outlet insulated connector	3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger
Straight outlet insulated connector	3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger
Air outlet plenum with circular collars	3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger
Straight outlet connector	3-way valve, ON/OFF actuator, 24 V power supply, complete hydraulic kit for main heat exchanger
External air intake louvers	2-way valves pressure independent, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for main heat exchanger
Manual external air intake louvre	Sanitisation system
Motor-driven louvre, with motor on the right with transformer	
Motor-driven louvre, with motor on the left with transformer	
Motor driven louvre, with motor on the right, with transformer	Sanitizing module JONIX for on-board installation
Motor driven louvre, 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

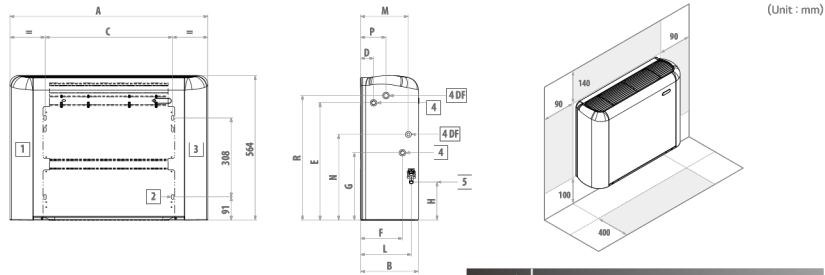
Model VFL / VFC / VFU with AC Motor	12			15			18			21			26			
	min	med	max	min	med	max	min	med	max	min	med	max	min	med	max	
Fan speed																
Total cooling capacity (1)	kW	1.98	2.63	3.51	3.00	3.66	4.51	3.42	4.19	5.26	3.97	5.27	6.71	4.11	6.24	8.02
Sensible cooling capacity (1)	kW	1.45	2.04	2.75	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
VFL	1.1	1.5	1.7	2.4	3.5	4.4	5.2	6.5	7.8
VFC	●	●	●	●	●	●	●	●	●
VFU					●	●	●	●	●

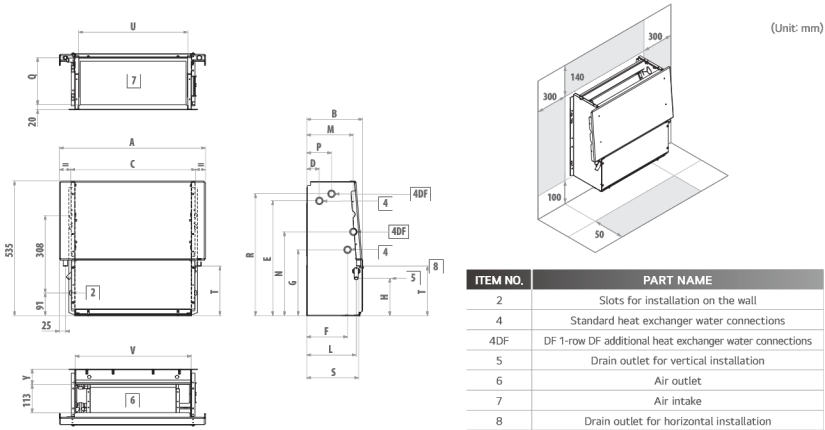
VFL MODEL DIMENSIONAL DRAWING



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	
Size	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	"	"	mm	kg
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

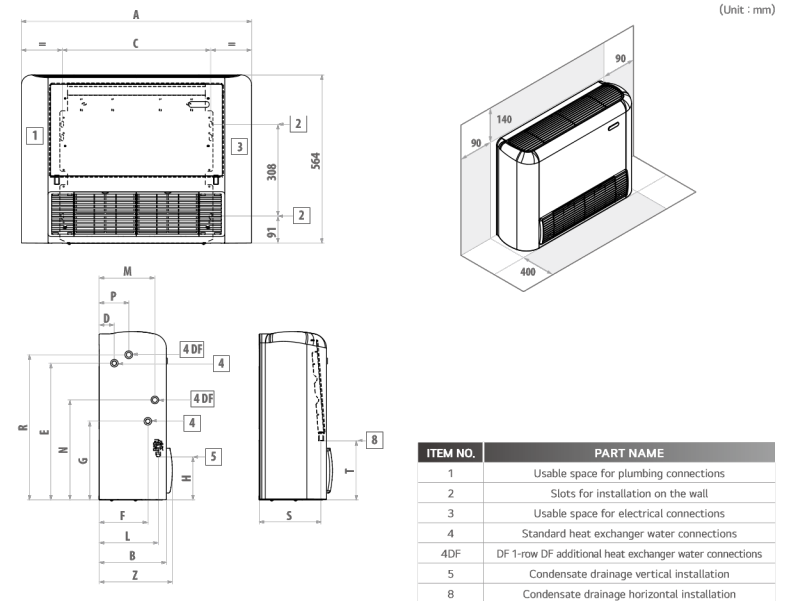
VFC MODEL DIMENSIONAL DRAWING



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
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	
Size	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	"	kg
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°C. 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

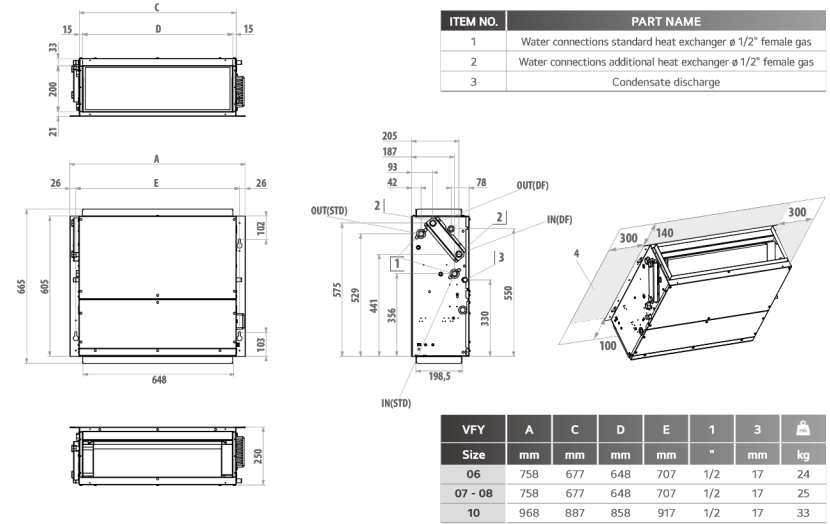
Model VFY with AC motor	06			07			08			10			
	min	med	max	min	med	max	min	med	max	min	med	max	
Speed	2,5,7			1,5,7			1,5,7			1,6,7			
Declared speed	2,5,7			1,5,7			1,5,7			1,6,7			
Rated airflow	m ³ /h	109	246	276	171	275	341	171	275	341	195	360	402
Available static pressure	Pa	10	50	63	19	50	77	19	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			
	min	med	max	min	med	max	min	med	max	
Speed	1,6,7			1,6,7			5,6,7			
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)

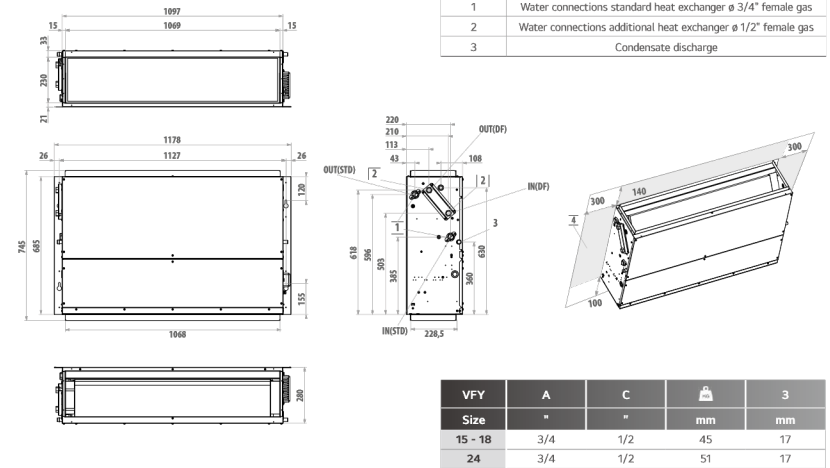
VFY MODEL DUCT UNITS DIMENSIONAL DRAWING

(Unit : mm)



ITEM NO.	PART NAME
1	Water connections standard heat exchanger ø 1/2" female gas
2	Water connections additional heat exchanger ø 1/2" female gas
3	Condensate discharge

(Unit: mm)



ITEM NO.	PART NAME
1	Water connections standard heat exchanger ø 3/4" female gas
2	Water connections additional heat exchanger ø 1/2" female gas
3	Condensate discharge

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 make 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 U1N 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	
User interface with display for EVO controller	
Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone	Plenum, air intake modules, air inlet and outlet connectors and cabinets
Recessed wall-mounted electronic display controller LED 503	90° connection for intake/delivery
MYCOMFORT BASE electronic controller with display	Air intake module with G2 air filter
Microprocessor control with display MY COMFORT LARGE	Air intake module with G4 air filter
MYCOMFORT MEDIUM electronic controller with display	Junction panel with rectangular duct
Humidity sensor for MY COMFORT (medium e large), EVO	Junction panel with flexible circular duct Ø 200
Water sensor for MYCOMFORT and EVO controllers	Flexible ducts - caps
Electronic microprocessor control panels	Not insulated flexible ducts, Ø 200 mm (6m length indivisible)
Electronic controller for AC fan control and one ON/OFF 230 V valve	Insulated flexible ducts, Ø 200 mm (6m length indivisible)
Electronic controller for AC fan control and two ON/OFF 230 V valves	Plastic cap Ø 200 mm
Water temperature sensor for TED controls	Air inlet and outlet plenum box
Power interface and regulating louver controllers	Air inlet plenum box with double row grille
Recess mounted controller for opening and closing the SM motor-driven regulating louver	Air inlet plenum box with double row grille 300 x 600 mm and filter G2
Power interface for connecting in parallel up to 4 fun coil units to the one controller	Insulated air outlet plenum box with grille
Auxiliary water drip trays, insulating shell, condensate drainage pump	Accessories
Condensate drainage pump kit	Hot water post-heating exchanger kit
Electrical heating elements	Auxiliary water drip tray for horizontal installation units
Heating element with installation kit, relay box and safety devices	Auxiliary water drip tray for vertical installation units
	Sanitisation system
	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)

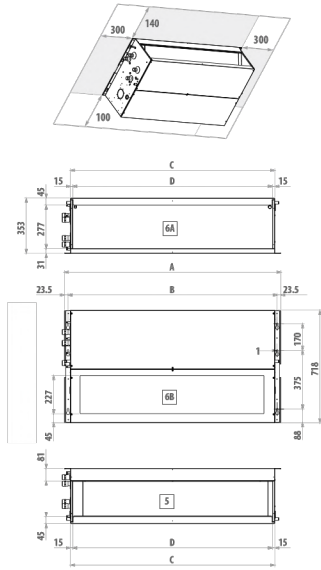
(2) Inlet water temperature 50°C, water flow rate same as in cooling mode, air temperature 20°C

(3) Water temperature 70 / 60°C, air temperature 20°C

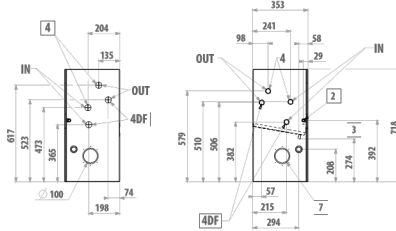
(4) Sound power measured according to standards ISO 3741 and ISO 3742
Power supply 230-150 (V-ph-Hz)

VFZ MODEL DUCT UNITS DIMENSIONAL DRAWING

(Unit : mm)

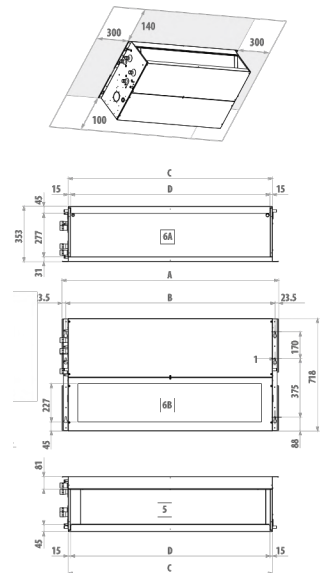


ITEM NO.	PART NAME
1	No. 6 quick-coupling slots
2	Condensate drainage horizontal installation
3	Condensate drainage vertical installation
4	Water connections on the right
4DF	Water connections additional heat exchanger
5	Air outlet
6	Air intake
6-A	supply condition
6-B	modifiable during installation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

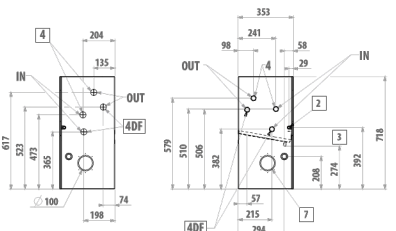


VFZ	A	B	C	D	4DF	2	3	kg	
Size	mm	mm	mm	mm	"	mm	mm		
24	1,174	1,127	1,096	1,066	3/4	3/4	17	17	49

(Unit : mm)



ITEM NO.	PART NAME
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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.

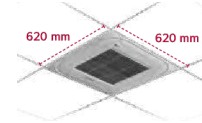


Stylish Design Panel (U-style 4 Way cassette)

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

Compact Size

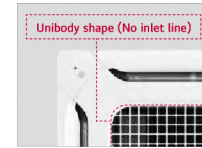
Panel size is fit into the ceiling tile.



Interior Fit



Lineless Surface



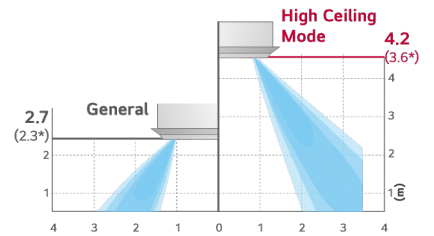
Detachable Corner



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

High Ceiling Mode

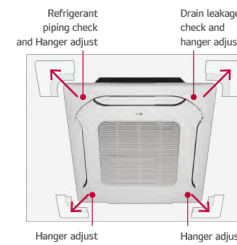
Airflow in a space with a 4.2m ceiling height is possible with this indoor unit. Furthermore, air flow can be strengthened by adjusting the fan speed.



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



Lined writing area with 25 horizontal lines.

Lined writing area with 25 horizontal lines.