



LG



For More Information

Visit: https://www.lg.com/au/business/air-solution/

 $\ ^{\star}$ The specifications, designs and information in this brochure are subject to change without notice. Unit colours shown are as close as possible to actual unit colours. Colours may vary slightly.

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WHY LG INVERTER SCROLL CHILLER

By applying LG VRF technology, high efficient and reliable operation has been achieved.

1 LG VRF Technology

Twin Inverter



- Wide operation frequency range 30 ~ 120 Hz
- Compressor back up operation

HiPOR™ Oil Management



Maximised reliability & efficiency compressor with HiPOR[™] – Minimise energy losses – Return directly oil into the



Refrigerant-cooling Heatsink

- Removes more heat from inverter PCB of Control box
- Applied to MULTI V cycle component

3 R32 Refrigerant

- Low GWP* (675, R32)
- (R32) * GWP : Global Warming Potential

4 Continuous Heating Operation

• Continue heating when defrosting



on a single unit chiller.

Residential Buildings / Hotel



Office / School



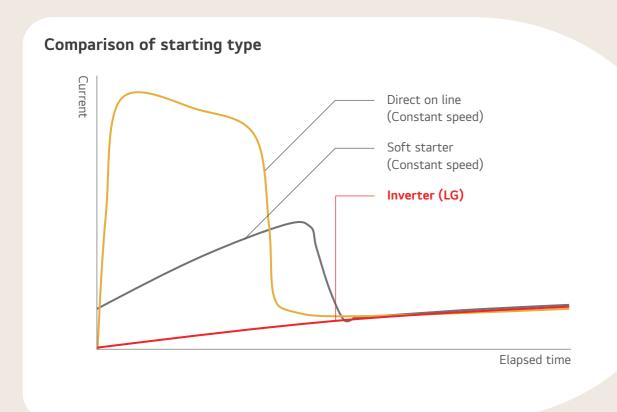
Factory / Swimming Pool



HIGH EFFICIENT INVERTER TECHNOLOGIES

Inverter Comp. vs Constant Speed Comp.

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



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

^{*} FLA : Full Load Ampere

Versus Fixed Speed Compressor When Starting Reduce starting torque below full load torque → Mechanical wear ↓ Decrease starting current under FLA → Less burden to motor When Operating Low electric loss due to high value of the power factor** → Energy efficient Low power input in part load → High SCOP, High SEER Continuously adjust compressor output according to the load → Save energy ** Power factor : Ratio between active power (kW) and total power (kVA)

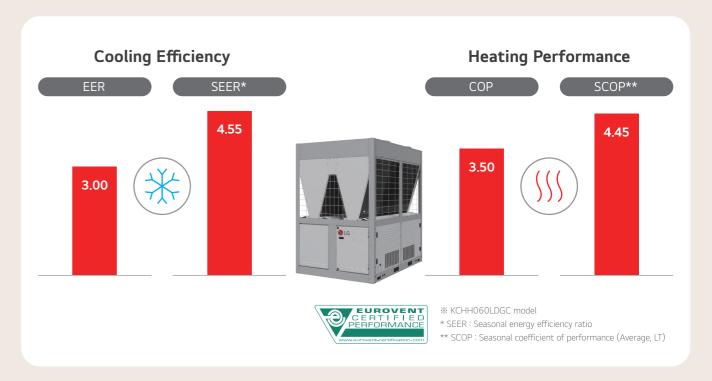
Advanced Compressor Technology

Twin Inverter Scroll Compressor has higher performance by Hz control.



High Energy Efficiency

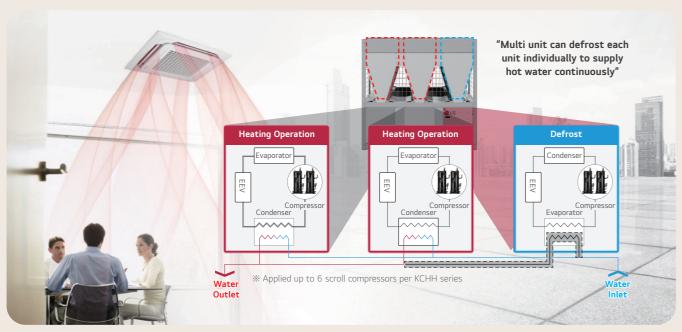
Twin Inverter Scroll Compressor improves energy efficiency.



RELIABILITY & STABILITY

Continuous Heating Operation

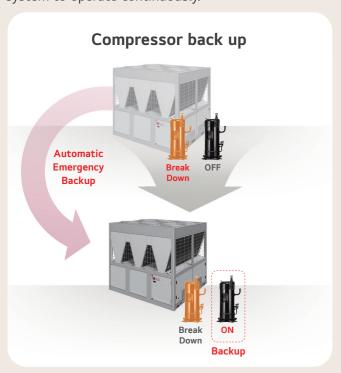
Continuous heating minimises the decrease of water outlet temperature during defrosting for multi unit.

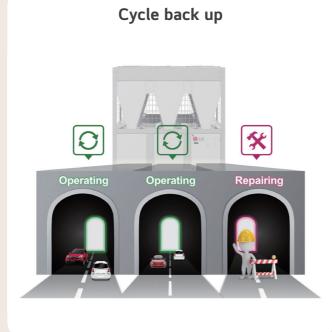


% Continuous heating operation is not available on a single unit chille.

Back Up Operation

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





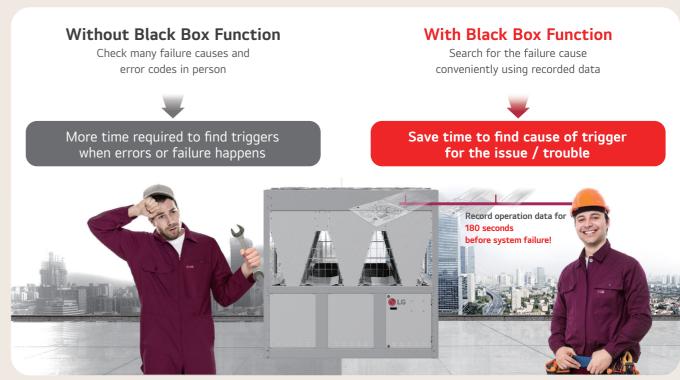
Corrosion Resistance (Black Fin)

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



Black Box Function

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



CONVENIENCE

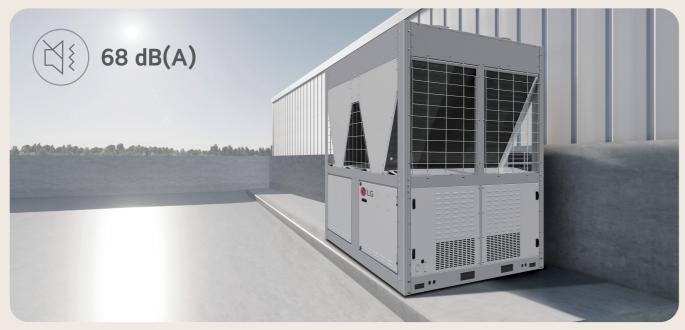
Compact Size

Compact size reduces concern about installation and service space.



Low Noise Level

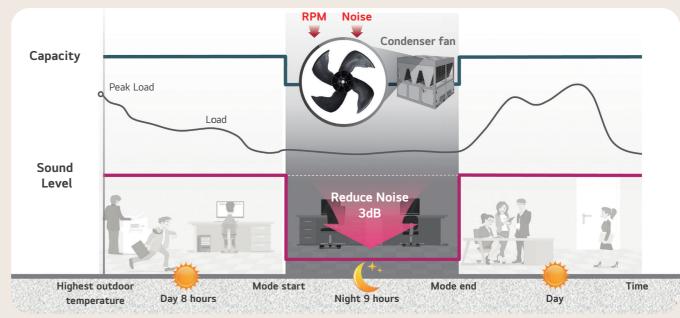
Lower noise can remove complaints from noise pollution and provide a quieter environment.



- % 60 RT Sound pressure level
- * Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard.

Night Silent Operation

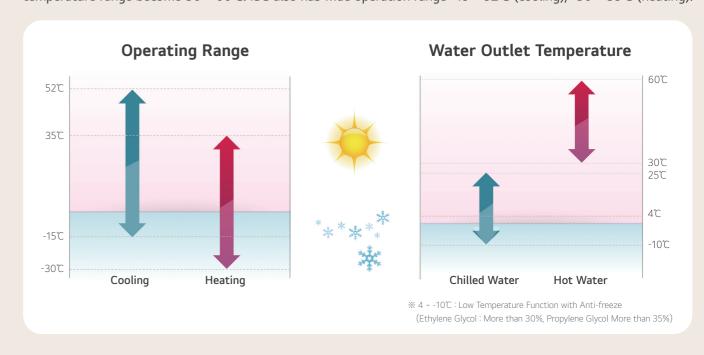
Night low noise function can reduce noise levels at night time by adjusting the fan RPM.



- * This function requires DIP switch setting. For more details, please refer to installation and owners manual.
- ** Sound pressure level is measured on the rated condition in the anechoic rooms by ISO 3745 standard. Results may vary depending on environment.
- * If chiller RPM is changed, the cooling capacity may be reduced.

Wide Operation Range

ISC R32 can supply wide range of water temperature. Chilled water temperature become -10 \sim 25°C and hot water temperature range become 30 \sim 60°C. ISC also has wide operation range -15 \sim 52°C (cooling), -30 \sim 35°C (heating).



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SPECIFICATION

KCHH017LDGC / KCHH020LDGC KCHH023LDGC / KCHH033LDGC







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

CATEGORY		UNITS	KCHH017LDGC	KCHH020LDGC	KCHH023LDGC	KCHH033LDGC
Power Supply	Case 1	V, Phase, Hz	380-415, 3, 50	380-415, 3, 50	380-415, 3, 50	380-415, 3, 50
	Limit Range of Voltage	V	323 ~ 477	323 ~ 477	323 ~ 477	323 ~ 477
	Case 2	V, Phase, Hz	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
	Limit Range of Voltage	V	342 ~ 418	342 ~ 418	342 ~ 418	342 ~ 418
Capacity	Cooling	kW	57.00	65.00	74.00	114.0
	Heating	kW	60.00	70.00	82.00	120.0
Power Input	Cooling	kW	18.39	21.67	26.43	36.77
	Heating	kW	16.67	20.00	24.12	33.33
Efficiency	Cooling (EER)	W/W	3.10	3.00	2.80	3.10
	Heating (COP)	W/W	3.60	3.50	3.40	3.60
SEER		W/W	4.70	4.55	4.40	4.70
SCOP (Average, LT)		W/W	4.45	4.45	4.45	4.45
SCOP (Average, MT)		W/W	3.25	3.25	3.25	3.25
IPLV		-	5.90	5.90	5.90	5.90
Sound Pressure Levels (Cooling)		dB(A)	67.0	67.0	68.0	68.0
Sound Power Levels (Cooling)		dB(A)	84.0	86.0	87.0	87.0
	Туре	-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
_	No. of Compressor	EA	2	2	2	4
Compressor	Oil Type	-	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)	FW68L (PVE)
	Oil Charge	cc x No.	1,200 x 2	1,200 x 2	1,200 x 2	1,200 x 4
Refrigerant	Туре	-	R32	R32	R32	R32
	Amount of Charged	kg x No.	4.7 x 2	4.7 x 2	4.7 x 2	4.7 x 4
	GWP	-	675	675	675	675
	t-CO ₂ eq	-	6.345	6.345	6.345	12.69
	Туре	-	Plate	Plate	Plate	Plate
	Pressure drop	kPa	18.7	21.5	28.7	18.7
Evaporator	Operating Maximum pressure (Refrigerant / Water)	kg/cm²	42 / 10	42 / 10	42 / 10	42 / 10
	Water Flow Rate Standard (Cooling / Heating)	LPM	163 / 171	186 / 200	211 / 235	327 / 345
	Inlet /Outlet diameter (Water pipe)	mm	50 A / 50 A	50 A / 50 A	50 A / 50 A	65 A / 65 A
Fan motor	Туре	-	BLDC	BLDC	BLDC	BLDC
	No. of Fan	EA	2	2	2	4
	No. of Vanes	EA	6	6	6	6
	Motor power	kW x No.	1.5 x 2	1.5 x 2	1.5 x 2	1.5 x 4
Weight		kg	521	521	521	972
Dimension	W	mm	765	765	765	1,528
	Н	mm	2,210	2,210	2,210	2,210
	D	mm	2,154	2,154	2,154	2,154
Remote Control		-	Modbus	Modbus	Modbus	Modbus
Guaranteed Load			20% ~ 100%	20% ~ 100%	20% ~ 100%	

Note

- 1. Specifications are subject to change without prior notice.
- 2. All electrical installations must comply with the Wiring Rules 'AS/NZS 3000'. All installations must adhere to all state and territory codes and regulatory authority requirements.
- 3. Sound pressure level is measured at 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.
- Performances are based on (EN14511 Standard) at 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

KCHH040LDGC / KCHH045LDGC KCHH050LDGC / KCHH060LDGC / KCHH067LDGC









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CATEGORY		UNITS	KCHH040LDGC	KCHH045LDGC	KCHH050LDGC	KCHH060LDGC	KCHH067LDGC
Power Supply	Case 1	V, Phase, Hz	380-415, 3, 50	380-415, 3, 50	380-415, 3, 50	380-415, 3, 50	380-415, 3, 50
	Limit Range of Voltage	V	323 ~ 477	323 ~ 477	323 ~ 477	323 ~ 477	323 ~ 477
	Case 2	V, Phase, Hz	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60	380, 3, 60
	Limit Range of Voltage	V	342 ~ 418	342 ~ 418	342 ~ 418	342 ~ 418	342 ~ 418
Capacity	Cooling	kW	130.0	148.0	171.0	195.0	222.0
	Heating	kW	140.0	164.0	180.0	210.0	246.0
Power Input	Cooling	kW	43.33	52.87	55.16	65.00	79.30
	Heating	kW	40.00	48.24	50.00	60.00	72.40
	Cooling (EER)	W/W	3.00	2.80	3.10	3.00	2.80
Efficiency	Heating (COP)	W/W	3.50	3.40	3.60	3.50	3.40
SEER		W/W	4.55	4.40	4.70	4.55	4.40
SCOP (Average, LT)		W/W	4.45	4.45	4.45	4.45	4.45
SCOP (Average, MT)		W/W	3.25	3.25	3.25	3.25	3.25
IPLV		-	5.90	5.90	5.90	5.90	5.90
Sound Pressure Levels (Cooling)		dB(A)	68.0	68.0	68.0	68.0	68.0
Sound Power Levels (Cooling)		dB(A)	90.0	91.0	88.0	91.0	92.0
	Туре	-	Inverter Scroll				
	No. of Compressor	EA	4	4	6	6	6
Compressor	Oil Type	-	FW68L (PVE)				
	Oil Charge	cc x No.	1,200 x 4	1,200 x 4	1,200 x 6	1,200 x 6	1,200 x 6
	Туре	-	R32	R32	R32	R32	R32
	Amount of Charged	kg x No.	4.7 x 4	4.7 x 4	4.7 x 6	4.7 x 6	4.7 x 6
Refrigerant	GWP	-	675	675	675	675	675
	t-CO ₂ eq	-	12.69	12.69	19.035	19.035	19.035
Evaporator	Туре	-	Plate	Plate	Plate	Plate	Plate
	Pressure drop	kPa	21.5	28.7	18.7	21.5	28.7
	Operating Maximum pressure (Refrigerant / Water)	kg/cm²	42 / 10	42 / 10	42 / 10	42 / 10	42 / 10
	Water Flow Rate Standard (Cooling / Heating)	LPM	372 / 400	411 / 470	491 / 518	558 / 600	617 / 705
	Inlet /Outlet diameter (Water pipe)	mm	65 A / 65 A				
Fan motor	Туре	-	BLDC	BLDC	BLDC	BLDC	BLDC
	No. of Fan	EA	4	4	6	6	6
	No. of Vanes	EA	6	6	6	6	6
	Motor power	kW x No.	1.5 x 4	1.5 x 4	1.5x 6	1.5x 6	1.5x 6
Weight		kg	972	972	1,422	1,422	1,422
Dimension	W	mm	1,528	1,528	2,291	2,291	2,291
	Н	mm	2,210	2,210	2,210	2,210	2,210
	D	mm	2,154	2,154	2,154	2,154	2,154
Remote Control		-	Modbus	Modbus	Modbus	Modbus	Modbus
Guaranteed Load Capacity Range		-	20% ~ 100%	20% ~ 100%	20% ~ 100%	20% ~ 100%	20% ~ 100%

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