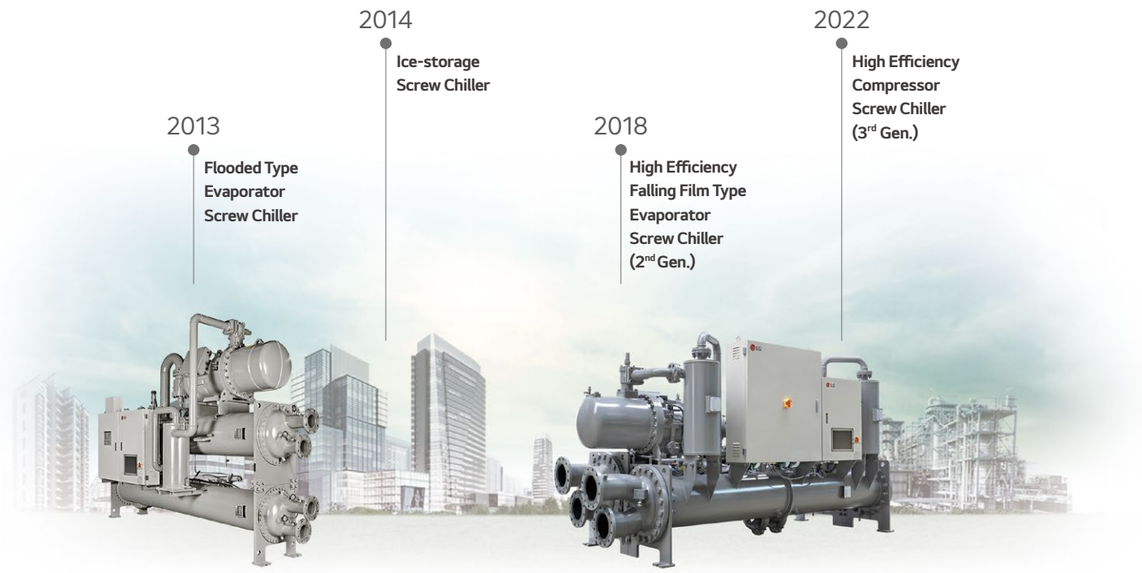
LG HVAC Solution

WATER-COOLED SCREW CHILLER

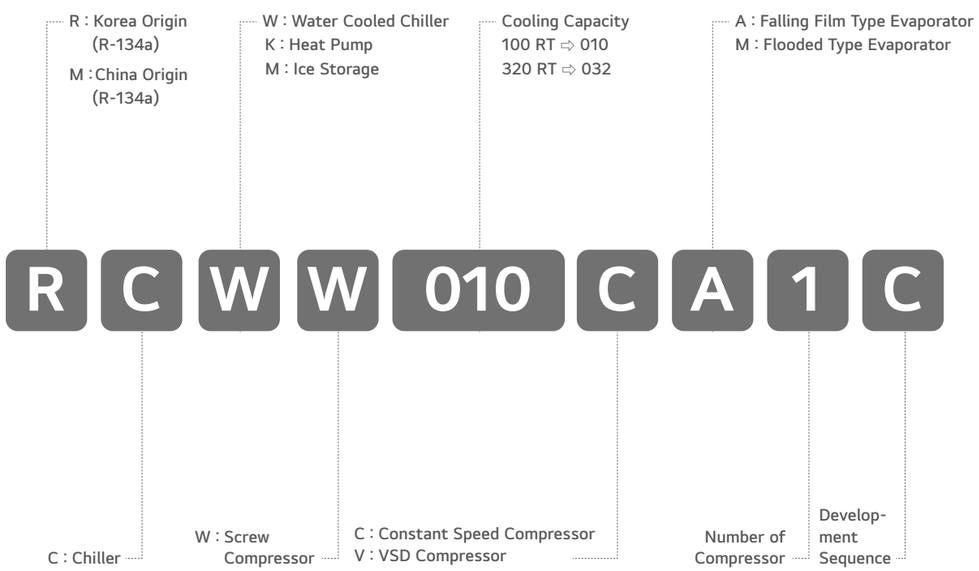
• 2025 LG Electronics. Printed in Korea. Nov. 2025

LG History

LG is a one of leading chiller manufacturer with long experience of manufacturing chillers and advanced technology.



Nomenclature



Line-up

[usRT]

Model	Manufactured in	Hz	100 250 350 450 550
Chiller Constant Speed MCWW- 	China	50	70 – 540
		60	70 – 570
Chiller Constant Speed RCWW- 	Korea	50	90 – 350
		60	80 – 400

※ Chilled Water 12 / 7°C Cooling Water 30 / 35°C Condition

[usRT]

Model	Manufactured in	Hz	100 250 350 450 550
Ice Storage Constant Speed RCMW- 	Korea	50	35 – 175
		60	40 – 210

※ Chilled Water (EG30%) 0 / -5°C Cooling Water 30 / 35°C Condition

[kW]

Model	Manufactured in	Hz	200 400 600 800 1,000
Heat Pump Constant Speed RCKW- 	Korea	50	200 – 850
		60	190 – 1,000

※ Hot Water 55 / 60°C Heat Source 12 / 7°C Condition

LG Water-Cooled Screw Chiller Features

Advanced Screw Compressor
- New design screw rotor profile and optimized gas path leads to high efficiency

Falling Film Evaporator
- Less refrigerant amount & high efficiency

High Reliability
- 3-stage oil reclaim system
- AHRI certified chiller & test facility
- Back-up operation available with independent Multi-circuit
- Variable safety device with high performance digital sensors

User-friendly
- Wide 7 inch touch screen with variety information
- Convenience use for checking ongoing status, and control & maintenance
- Energy saving solution and intelligence building managing available (with LG BMS / BEMS)

Eco-friendly
- ODP* Zero R-134a applied to protect ozone layer

* ODP (Ozone Depletion Potential)

LG Screw Chiller Achieve High Efficiency

Gen1 → **Gen2** → **Gen3**

Flooded Type Evaporator

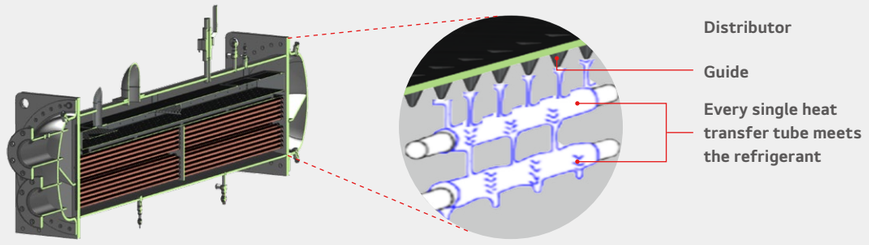
Falling Film Type Evaporator

Falling Film Type Evaporator + Advanced Compressor

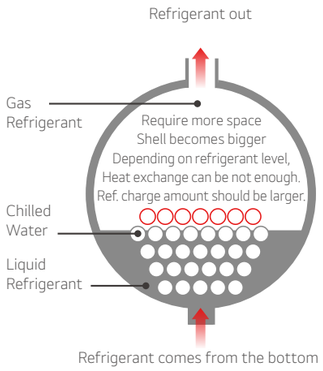
※ The model may vary depending on the production site.

Falling Film Type Evaporator

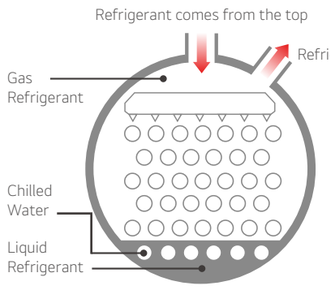
Falling Film Type Evaporator offers more stable distribution & higher heat transfer efficiency.



• Flooded Type



• Falling Film Type



Higher Efficiency & Less Refrigerant Charge Amount

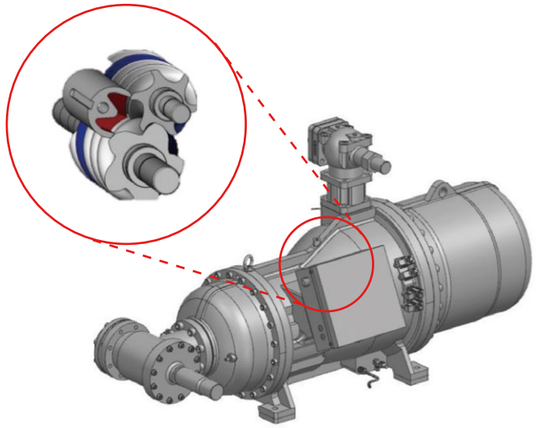
※ Flooded Type Evaporator can be applied for China models and special occasion.

Advanced Compressor

Efficiency
- All new design screw rotor profile can provide high efficiency at full load & partial load.
- Optimized gas path provides sufficient cooling effect to motor and less pressure drop.

Reliability
- New slide valve design strengthens the stability and reliability under all working conditions.

※ Advanced compressor may not apply to China model and special occasion.



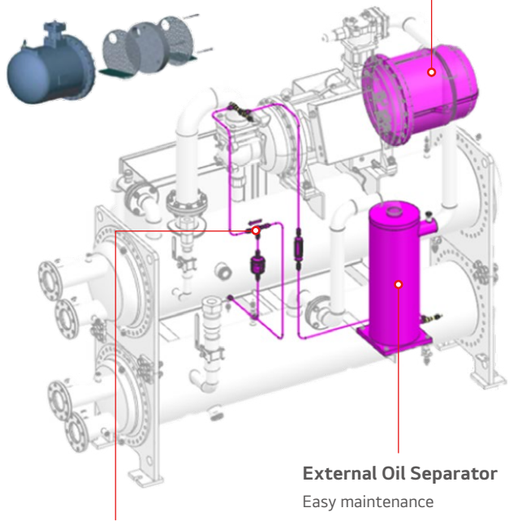
Stable Oil Supplement

Newly developed oil recovery system makes operation more stable by utilizing extra oil separation.

• Oil Recovery System

Oil Separator Inside Compressor

Structural design for oil reclaim inside compressor

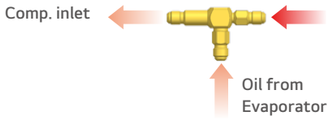


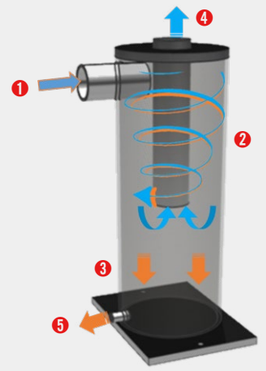
External Oil Separator

Easy maintenance

Oil Reclaim from Evaporator

Without needing extra oil pump





1. Refrigerant Gas & Oil from the Compressor
2. Separate Refrigerant Gas & Oil by Making Cyclone Flow
3. Heavier Oil Falls Down to Oil Separator Bottom
4. Refrigerant Gas Goes to Condenser
5. Oil Goes to Compressor Suction

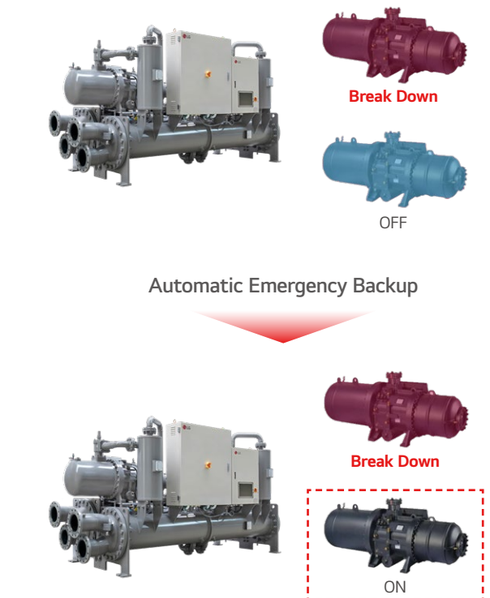
Oil Return to Compressor in 3 Parts → **Stable Operation**

※ Instead of external oil separator, internal oil separator inside condenser can be applied for China models and special occasion.

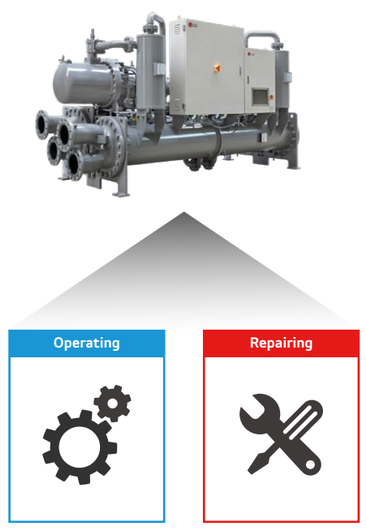
Multi Circuit Back-up Operation

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

• **Compressor Back-up**

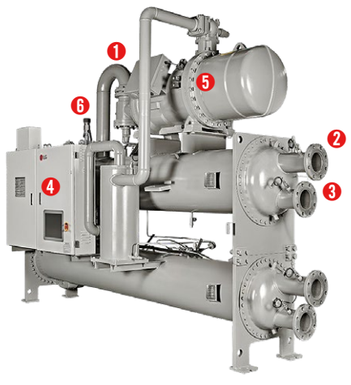


• **Efficient Maintenance**



Product Protection & Safety Devices

High performance sensor and variety safety devices prevent damage to chiller and minimize the malfunction.



❶ Safety Device For Compressor Motor
- Compressor discharge & motor winding temperature detection
- Reverse phase and phase loss detection

❷ Anti-freezing Device
- Chilled water temperature sensor
- Low pressure sensor

❸ Chilled Water Flow Detection
- Differential pressure switch

❹ Power Fault Detection Device
- Reverse phase detection
- Phase loss detection
- Over current detection
- Low current detection

❺ Compressor Bearing Safety Device
- Oil level switch
- Oil heater

❻ Pressure Control & Pressure Block
- High / Low pressure sensor

Safety Valve
- High / Low pressure relief valve

User Friendly Controller

High Quality 7 inch touch screen offers various functions for easy operation & maintenance.

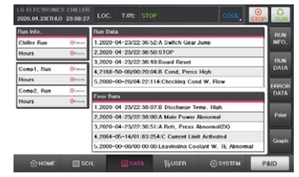
• **Control Panel**

[7 Inch Touch Screen]
- Various protocol (Modbus, BACnet)
- Fast response 7 inch touch display
- Remote monitoring & control by LAN connection
- Convenient and intuitive UI

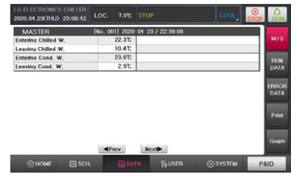
※ Operation record storage period
- Storage media : SD Card (8 GB, up to 1 year data storage)
- Storage period may vary depending on operating conditions.

• **Various Functions**

[Scheduling]
Automatic operation



[Trend Display]
Easy to check operation status



[Operation Information]

[Operation Graph]

[Black Box]

Identify cause of failure and provide rapid service through data record.

※ Operation record storage period
- Storage media : SD Card (8 GB, up to 1 year data storage)
- Storage period may vary depending on operating conditions.

Quality Control

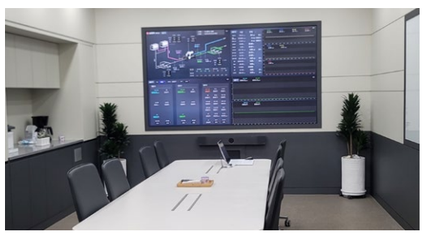
Ensure the reliability of chiller performance with the largest test facility approved by AHRI 550 / 590 certification, Pyeongtack factory.

Equipment Capacity		Test Items
No. 1 200 ~ 300 RT	No. 2 150 ~ 400 RT	• Tests - Performance test : low load, part load, power consumption, heat balance - Leakage test & Hydrophilic test • Performance Test Before Delivery • Online / Offline Witness Performance Test (Option)
No. 3 500 ~ 1,000 RT	No. 4 500 ~ 1,000 RT	
No. 5 1,000 ~ 3,000 RT	No. 6 1,000 ~ 3,000 RT	

Performance Test

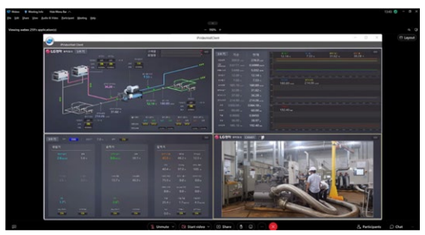
• **Pleasant Test Experience**

- Soundproof space
- Provide real time live streaming of operating data including real chiller
- Provide variety of amenities (refrigerator, LG Styler, printer, etc)



• **Online Customer Witness Test**

- Cost and time saving solution
- Allow customer to witness anywhere in the world (webex, etc)
- Provide real time live streaming of operating data including real chiller



※ Example screen of online witness test by webex.

• **Performance Test Report**

- Provide test performance report without wasting time on-site

• **Efficient Integrated Control System**

- Remote control and monitoring of facility and chiller by wireless network
- Real-time graph on chiller and facility operating information
- Variety information by multi vision monitor

AHRI Certificates

LG chiller performance and test facilities has been certified according to international certification agency standards.

AHRI 550 / 590 (AHRI 551 / 591) Standard

Performance Evaluation for Vapor Compression Chiller (50 / 60 Hz)

"AHRI performance AWARD" award for 7 consecutive years.

※ Qualification : Pass the 1st round of follow-up test for 3 years

ASME (America Society of Mechanical Engineers)

• ASME Section VIII Boiler and Pressure Vessel Code.
ASME Section VIII is the section of the ASME Boiler & Pressure Vessel Code (BPVC) that covers pressure vessels. It specifically refers to the pressure vessels that operate at pressures, either internal or external, that exceed 15 psig.

ETL (Electrical Testing Laboratory)

• Safety certification mark in the Americas.
ETL is approved by the U.S. federal government, each state government, and each city to provide comprehensive safety testing services, and is a safety mark for electrical and electronic products commonly used in the U.S. with a certification equivalent to the UL certification mark.

CE (Conformité Européenne)

• Safety certification mark in the Europe.
The CE marking means that the product complies with the conditions of European standards related to safety, health, environment and consumer protection.

※ Some certification may not available vary depending on the production site.

Chiller 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW008CA1C	RCWW010CA1C	RCWW012CA2C	RCWW012CA1C
Unit Capacity		usRT	91.31	103.2	115.1	119.1
		kW	321.1	363.0	404.9	418.8
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	104	118	139	131
	Starting Current (380 V)	A	262	320	225	285
	RLA (400 V)	A	99	112	132	124
	Starting Current (400 V)	A	275	337	228	300
	Independent Refrigerant Circuits	EA	1	1	2	1
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	55.13	62.32	69.51	71.90
		GPM	242.7	274.4	306.0	316.6
	Pressure Drop	mAq	11.5	9.9	2.7	2.9
		ftH_2O	37.8	32.5	8.9	9.4
	Connection	inch	4	4	5	5
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	65.95	74.64	83.03	85.68
		GPM	290.4	328.6	365.6	377.2
	Pressure Drop	mAq	11.2	9.3	2.4	2.6
		ftH_2O	36.8	30.5	8.0	8.4
	Connection	inch	4	4	5	5
Weight	Shipping Weight	kg	2,780	3,040	3,950	3,470
		lb	6,129	6,702	8,708	7,650
	Operating Weight	kg	3,130	3,390	4,400	3,920
		lb	6,900	7,474	9,700	8,642
Dimension	Length	mm	2,700	2,713	3,725	3,700
		inch	106.3	106.8	146.7	145.7
	Width	mm	1,250	1,290	1,560	1,155
		inch	49.2	50.8	61.4	45.5
	Height	mm	2,284	2,480	2,000	2,602
		inch	89.9	97.6	78.7	102.4
Refrigerant		kg	100	120	90 / 90	170
		lb	220	265	198 / 198	375
Oil		L	17	19	16 / 16	23
		gallon	4.5	5.0	4.2 / 4.2	6.1

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW014CA1C	RCWW014CA2C	RCWW016CA2C	RCWW016CA1C
Unit Capacity		usRT	133.3	135.3	152.7	156.0
		kW	469.0	475.7	537.0	548.5
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	148	150	171	170
	Starting Current (380 V)	A	340	275	304	427
	RLA (400 V)	A	141	143	163	161
	Starting Current (400 V)	A	358	280	311	448
	Independent Refrigerant Circuits	EA	1	2	2	1
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	80.51	81.66	92.19	94.17
		GPM	354.5	359.5	405.9	414.6
	Pressure Drop	mAq	3.5	3.7	3.5	3.6
		ftH_2O	11.6	12.0	11.6	11.9
	Connection	inch	5	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	96.09	97.38	110.1	112.3
		GPM	423.1	428.8	484.8	494.4
	Pressure Drop	mAq	3.2	3.3	3.1	3.2
		ftH_2O	10.4	10.8	10.3	10.6
	Connection	inch	5	5	5	5
Weight	Shipping Weight	kg	3,650	4,350	4,540	3,950
		lb	8,047	9,590	10,009	8,708
	Operating Weight	kg	4,100	4,800	4,990	4,400
		lb	9,039	10,582	11,001	9,700
Dimension	Length	mm	3,700	3,725	3,725	3,700
		inch	145.7	146.7	146.7	145.7
	Width	mm	1,155	1,560	1,560	1,191
		inch	45.5	61.4	61.4	46.9
	Height	mm	2,710	2,000	2,000	2,718
		inch	106.7	78.7	78.7	107.0
Refrigerant		kg	170	90 / 90	90 / 90	170
		lb	375	198 / 198	198 / 198	375
Oil		L	26	16 / 16	16 / 16	28
		gallon	6.9	4.2 / 4.2	4.2 / 4.2	7.4

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW018CA2C	RCWW018CA1C	RCWW020CA2C	RCWW022CA2C
Unit Capacity		usRT	156.1	175.1	184.6	209.1
		kW	549.0	615.6	649.1	735.3
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	178	195	204	233
	Starting Current (380 V)	A	321	483	364	437
	RLA (400 V)	A	169	186	193	221
	Starting Current (400 V)	A	328	508	372	448
	Independent Refrigerant Circuits	EA	2	1	2	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	94.25	105.7	111.4	126.2
		GPM	415.0	465.4	490.5	555.6
	Pressure Drop	mAq	2.7	3.3	6.4	5.9
		ftH_2O	8.8	10.9	21.0	19.4
	Connection	inch	5	5	5	6
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	112.9	126.1	132.6	150.6
		GPM	497.1	555.2	583.8	663.1
	Pressure Drop	mAq	2.8	3.4	5.6	6.1
		ftH_2O	9.1	11.2	18.5	19.9
	Connection	inch	5	5	5	6
Weight	Shipping Weight	kg	4,860	4,210	5,110	5,420
		lb	10,714	9,281	11,266	11,949
	Operating Weight	kg	5,440	4,790	5,690	6,100
		lb	11,993	10,560	12,544	13,448
Dimension	Length	mm	3,731	3,733	4,727	4,822
		inch	146.9	147.0	186.1	189.8
	Width	mm	1,666	1,233	1,601	1,651
		inch	65.6	48.5	63.0	65.0
	Height	mm	2,068	2,793	2,000	2,155
		inch	81.4	110.0	78.7	84.8
Refrigerant		kg	100 / 100	200	110 / 110	140 / 140
		lb	220 / 220	441	243 / 243	309 / 309
Oil		L	16 / 16	28	17 / 17	19 / 19
		gallon	4.2 / 4.2	7.4	4.5 / 4.5	5.0 / 5.0

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW024CA2C	RCWW028CA2C	RCWW032CA2C	RCWW036CA2C
Unit Capacity		usRT	236.2	266.7	309.0	350.2
		kW	830.7	937.9	1,087	1,232
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	260	294	337	387
	Starting Current (380 V)	A	415	488	596	677
	RLA (400 V)	A	247	279	320	368
	Starting Current (400 V)	A	424	498	609	692
	Independent Refrigerant Circuits	EA	2	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	142.6	161.0	186.6	211.4
		GPM	627.8	708.9	821.6	930.8
	Pressure Drop	mAq	6.8	7.1	6.7	7.1
		ftH_2O	22.3	23.2	21.8	23.4
	Connection	inch	6	8	8	8
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	169.9	191.9	222.4	251.8
		GPM	748.0	844.9	979.2	1,108.6
	Pressure Drop	mAq	5.5	5.4	6.0	5.5
		ftH_2O	18.1	17.7	19.6	18.1
	Connection	inch	6	8	8	8
Weight	Shipping Weight	kg	6,060	6,390	6,930	7,460
		lb	13,360	14,088	15,278	16,446
	Operating Weight	kg	6,740	7,190	7,730	8,440
		lb	14,859	15,851	17,042	18,607
Dimension	Length	mm	4,789	4,837	4,860	4,881
		inch	188.5	190.4	191.3	192.2
	Width	mm	1,722	1,813	1,802	1,921
		inch	67.8	71.4	70.9	75.6
	Height	mm	2,154	2,138	2,236	2,422
		inch	84.8	84.2	88.0	95.4
Refrigerant		kg	140 / 140	160 / 160	160 / 160	180 / 180
		lb	309 / 309	353 / 353	353 / 353	397 / 397
Oil		L	23 / 23	26 / 26	28 / 28	28 / 28
		gallon	6.1 / 6.1	6.9 / 6.9	7.4 / 7.4	7.4 / 7.4

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW008CA1C	RCWW010CA1C	RCWW012CA2C	RCWW012CA1C	RCWW014CA2C
Unit Capacity		usRT	81.30	110.2	118.1	125.1	137.8
		kW	285.9	387.7	415.5	439.8	484.7
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	87	121	130	136	271
	Starting Current (380 V)	A	245	317	227	378	328
	RLA (460 V)	A	72	100	107	112	224
	Starting Current (460 V)	A	208	275	194	337	274
	Independent Refrigerant Circuits	EA	1	1	2	1	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	49.09	66.55	71.33	75.50	83.21
		GPM	216.1	293.0	314.1	332.4	366.4
	Pressure Drop	mAq	9.3	11.2	2.8	3.1	3.8
		ftH_2O	30.5	36.8	9.3	10.3	12.4
	Connection	inch	4	4	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	58.60	79.54	85.25	90.25	99.46
		GPM	258.0	350.2	375.3	397.4	437.9
	Pressure Drop	mAq	9.0	10.5	2.6	2.8	3.4
		ftH_2O	29.5	34.5	8.4	9.3	11.2
	Connection	inch	4	4	5	5	5
Weight	Shipping Weight	kg	2,700	3,000	3,870	3,270	4,210
		lb	5,952	6,614	8,532	7,209	9,281
	Operating Weight	kg	3,050	3,350	4,320	3,720	4,660
		lb	6,724	7,385	9,524	8,201	10,274
Dimension	Length	mm	2,700	2,713	3,725	3,700	3,725
		inch	106.3	106.8	146.7	145.7	146.7
	Width	mm	1,250	1,290	1,560	1,155	1,560
		inch	49.2	50.8	61.4	45.5	61.4
	Height	mm	2,284	2,480	2,000	2,602	2,000
		inch	89.9	97.6	78.7	102.4	78.7
Refrigerant		kg	100	120	90 / 90	170	90 / 90
		lb	220	265	198 / 198	375	198 / 198
Oil		L	16	17	16 / 16	19	16 / 16
		gallon	4.2	4.5	4.2 / 4.2	5.0	4.2 / 4.2

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW014CA1C	RCWW016CA1C	RCWW016CA2C	RCWW018CA2C	RCWW018CA1C
Unit Capacity		usRT	142.1	160.3	163.1	183.6	187.0
		kW	499.9	563.7	573.5	645.7	657.7
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	152	173	173	198	197
	Starting Current (380 V)	A	363	460	332	366	513
	RLA (460 V)	A	125	143	143	163	163
	Starting Current (460 V)	A	300	358	280	312	448
	Independent Refrigerant Circuits	EA	1	1	2	2	1
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	85.82	96.78	98.46	110.9	112.9
		GPM	377.9	426.1	433.5	488.3	497.1
	Pressure Drop	mAq	4.0	3.8	4.0	3.7	3.8
		ftH_2O	13.0	12.6	13.1	12.0	12.3
	Connection	inch	5	5	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	102.5	115.6	117.4	132.5	134.8
		GPM	451.3	509.0	516.9	583.4	593.5
	Pressure Drop	mAq	3.6	3.4	3.5	3.8	3.9
		ftH_2O	11.8	11.2	11.6	12.3	12.6
	Connection	inch	5	5	5	5	5
Weight	Shipping Weight	kg	3,600	3,820	4,500	4,800	4,120
		lb	7,937	8,422	9,921	10,582	9,083
	Operating Weight	kg	4,050	4,270	4,950	5,380	4,700
		lb	8,929	9,414	10,913	11,861	10,362
Dimension	Length	mm	3,700	3,700	3,725	3,731	3,733
		inch	145.7	145.7	146.7	146.9	147.0
	Width	mm	1,155	1,191	1,560	1,666	1,233
		inch	45.5	46.9	61.4	65.6	48.5
	Height	mm	2,710	2,718	2,000	2,068	2,793
		inch	106.7	107.0	78.7	81.4	110.0
Refrigerant		kg	170	170	90 / 90	100 / 100	200
		lb	375	375	198 / 198	220 / 220	441
Oil		L	23	26	16 / 16	16 / 16	28
		gallon	6.1	6.9	4.2 / 4.2	4.2 / 4.2	7.4

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW020CA2C	RCWW020CA1C	RCWW022CA2C	RCWW024CA2C	RCWW028CA2C
Unit Capacity		usRT	191.3	209.0	221.5	251.6	282.8
		kW	672.9	735.1	779.2	884.7	994.4
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	205	226	239	270	300
	Starting Current (380 V)	A	385	600	437	513	514
	RLA (460 V)	A	169	187	198	223	247
	Starting Current (460 V)	A	328	508	374	449	424
	Independent Refrigerant Circuits	EA	2	1	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	115.5	126.2	133.8	151.9	170.7
		GPM	508.5	555.6	589.1	668.8	751.6
	Pressure Drop	mAq	6.8	4.2	6.6	7.6	7.9
		ftH_2O	22.4	13.8	21.6	25.1	25.8
	Connection	inch	5	5	6	6	8
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	137.7	150.7	159.3	181.2	203.6
		GPM	606.3	663.5	701.4	797.8	896.4
	Pressure Drop	mAq	6.1	3.4	6.8	6.2	6.0
		ftH_2O	19.9	11.3	22.2	20.4	19.8
	Connection	inch	5	5	6	6	8
Weight	Shipping Weight	kg	5,050	4,390	5,340	5,660	6,290
		lb	11,133	9,678	11,773	12,478	13,867
	Operating Weight	kg	5,630	4,970	6,020	6,340	7,090
		lb	12,412	10,957	13,272	13,977	15,631
Dimension	Length	mm	4,727	3,733	4,822	4,789	4,837
		inch	186.1	147.0	189.8	188.5	190.4
	Width	mm	1,601	1,233	1,651	1,722	1,813
		inch	63.0	48.5	65.0	67.8	71.4
	Height	mm	2,000	2,793	2,155	2,154	2,138
		inch	78.7	110.0	84.8	84.8	84.2
Refrigerant		kg	110 / 110	200	140 / 140	140 / 140	160 / 160
		lb	243 / 243	441	309 / 309	309 / 309	353 / 353
Oil		L	16 / 16	28	17 / 17	19 / 19	23 / 23
		gallon	4.2 / 4.2	7.4	4.5 / 4.5	5.0 / 5.0	6.1 / 6.1

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	RCWW032CA2C	RCWW036CA2C	RCWW040CA2Cv
Unit Capacity		usRT	320.5	369.8	418.1
		kW	1,127	1,301	1,471
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	344	387	450
	Starting Current (380 V)	A	633	708	826
	RLA (460 V)	A	284	320	372
	Starting Current (460 V)	A	501	609	695
	Independent Refrigerant Circuits	EA	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator		
	Flow Rate	m^3/h	193.5	223.3	252.5
		GPM	852.0	983.2	1,111.7
	Pressure Drop	mAq	7.1	7.9	8.6
		ftH_2O	23.4	25.9	28.3
	Connection	inch	8	8	8
Condenser	Type	-	Shell & Tube Type Condenser		
	Flow Rate	m^3/h	230.7	266.4	301.2
		GPM	1,015.7	1,172.9	1,326.1
	Pressure Drop	mAq	6.4	6.1	7.1
		ftH_2O	21.0	20.1	23.2
	Connection	inch	8	8	8
Weight	Shipping Weight	kg	6,670	7,290	7,690
		lb	14,705	16,072	16,954
	Operating Weight	kg	7,470	8,270	8,670
		lb	16,469	18,232	19,114
Dimension	Length	mm	4,860	4,863	4,881
		inch	191.3	191.5	192.2
	Width	mm	1,863	1,921	1,921
		inch	73.3	75.6	75.6
	Height	mm	2,231	2,422	2,422
		inch	87.8	95.4	95.4
Refrigerant		kg	160 / 160	180 / 180	180 / 180
		lb	353 / 353	397 / 397	397 / 397
Oil		L	26 / 26	28 / 28	28 / 28
		gallon	6.9 / 6.9	7.4 / 7.4	7.4 / 7.4

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 50 Hz

Manufactured in Korea

(SI) Glycol Water (EG 30%) : 0 / -5°C, Cooling Water : 30 / 35°C
(IP) Glycol Water (EG 30%) : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW008CA1C	RCMW010CA1C	RCMW012CA1C	RCMW012CA2C
Unit Capacity		usRT	37.53	51.23	59.12	50.72
		kW	132.0	180.2	207.9	178.4
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	85	118	134	141
	Starting Current (380 V)	A	218	320	285	225
	RLA (400 V)	A	81	112	127	134
	Starting Current (400 V)	A	230	337	300	229
	Independent Refrigerant Circuits	EA	1	1	1	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	25.21	34.42	39.72	34.07
		GPM	111.0	151.5	174.9	150.0
	Pressure Drop	mAq	6.7	7.0	5.2	2.0
		ftH_2O	22.0	23.0	17.0	6.6
	Connection	inch	4	4	4	5
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	31.35	42.95	49.36	43.84
		GPM	138.0	189.1	217.3	193.0
	Pressure Drop	mAq	4.7	6.0	4.3	1.5
		ftH_2O	15.6	19.7	13.9	4.8
	Connection	inch	4	4	4	5
Weight	Shipping Weight	kg	2,730	2,820	3,240	3,840
		lb	6,019	6,217	7,143	8,466
	Operating Weight	kg	3,080	3,170	3,590	4,320
		lb	6,790	6,989	7,915	9,524
Dimension	Length	mm	2,700	2,700	2,700	3,725
		inch	106.3	106.3	106.3	146.7
	Width	mm	1,250	1,290	1,354	1,543
		inch	49.2	50.8	53.3	60.7
	Height	mm	2,284	2,292	2,602	1,957
		inch	89.9	90.2	102.4	77.0
Refrigerant		kg	140	140	140	100 / 100
		lb	309	309	309	220 / 220
Oil		L	16	17	19	16 / 16
		gallon	4.2	4.5	5.0	4.2 / 4.2

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 50 Hz

Manufactured in Korea

(SI) Glycol Water (EG 30%) : 0 / -5°C, Cooling Water : 30 / 35°C
(IP) Glycol Water (EG 30%) : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW016CA1C	RCMW016CA2C	RCMW018CA1C	RCMW018CA2C
Unit Capacity		usRT	69.81	67.62	78.28	71.44
		kW	245.5	237.8	275.3	251.2
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	176	169	199	182
	Starting Current (380 V)	A	427	303	483	323
	RLA (400 V)	A	168	161	189	173
	Starting Current (400 V)	A	448	311	508	330
	Independent Refrigerant Circuits	EA	1	2	1	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	46.90	45.42	52.59	47.99
		GPM	206.5	200.0	231.5	211.3
	Pressure Drop	mAq	1.6	1.5	1.5	1.7
		ftH_2O	5.2	5.0	5.0	5.5
	Connection	inch	5	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	59.88	58.01	67.27	61.45
		GPM	263.6	255.4	296.2	270.6
	Pressure Drop	mAq	1.3	1.2	1.2	1.4
		ftH_2O	4.3	4.1	4.0	4.5
	Connection	inch	5	5	5	5
Weight	Shipping Weight	kg	3,780	4,390	4,040	4,600
		lb	8,333	9,678	8,907	10,141
	Operating Weight	kg	4,210	4,870	4,470	5,080
		lb	9,281	10,736	9,855	11,199
Dimension	Length	mm	3,700	3,725	3,700	3,725
		inch	145.7	146.7	145.7	146.7
	Width	mm	1,191	1,560	1,191	1,560
		inch	46.9	61.4	46.9	61.4
	Height	mm	2,718	2,000	2,723	2,000
		inch	107.0	78.7	107.2	78.7
Refrigerant		kg	170	100 / 100	170	100 / 100
		lb	375	220 / 220	375	220 / 220
Oil		L	26	16 / 16	28	16 / 16
		gallon	6.9	4.2 / 4.2	7.4	4.2 / 4.2

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 50 Hz

Manufactured in Korea

(SI) Glycol Water (EG 30%) : 0 / -5°C, Cooling Water : 30 / 35°C
(IP) Glycol Water (EG 30%) : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW020CA2C	RCMW022CA2C	RCMW024CA2C	RCMW028CA2C
Unit Capacity		usRT	81.64	103.8	119.3	134.1
		kW	287.1	365.0	419.7	471.7
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	207	236	267	302
	Starting Current (380 V)	A	365	438	419	491
	RLA (400 V)	A	196	224	254	287
	Starting Current (400 V)	A	373	449	427	502
	Independent Refrigerant Circuits	EA	2	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	54.84	69.73	80.16	90.11
		GPM	241.5	307.0	352.9	396.7
	Pressure Drop	mAq	1.2	3.3	3.1	3.6
		ftH_2O	3.9	10.8	10.3	11.7
	Connection	inch	5	5	6	6
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	70.12	86.66	99.36	111.6
		GPM	308.7	381.6	437.5	491.4
	Pressure Drop	mAq	2.3	2.5	2.8	2.5
		ftH_2O	7.4	8.3	9.1	8.2
	Connection	inch	5	5	6	6
Weight	Shipping Weight	kg	4,920	5,190	5,820	6,160
		lb	10,847	11,442	12,831	13,580
	Operating Weight	kg	5,470	5,740	6,500	6,840
		lb	12,059	12,655	14,330	15,080
Dimension	Length	mm	3,725	4,727	4,789	4,822
		inch	146.7	186.1	188.5	189.8
	Width	mm	1,651	1,601	1,722	1,693
		inch	65.0	63.0	67.8	66.7
	Height	mm	2,018	2,000	2,154	2,153
		inch	79.4	78.7	84.8	84.8
Refrigerant		kg	110 / 110	110 / 110	140 / 140	140 / 140
		lb	243 / 243	243 / 243	309 / 309	309 / 309
Oil		L	16 / 16	17 / 17	19 / 19	23 / 23
		gallon	4.2 / 4.2	4.5 / 4.5	5.0 / 5.0	6.1 / 6.1

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 50 Hz

Manufactured in Korea

(SI) Glycol Water (EG 30%) : 0 / -5°C, Cooling Water : 30 / 35°C
(IP) Glycol Water (EG 30%) : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW032CA2C	RCMW036CA2C
Unit Capacity		usRT	156.8	176.2
		kW	551.4	619.6
Compressor	Starter Type	-	Y-DELTA	Y-DELTA
	RLA (380 V)	A	353	399
	Starting Current (380 V)	A	604	683
	RLA (400 V)	A	335	379
	Starting Current (400 V)	A	616	698
	Independent Refrigerant Circuits	EA	2	2
Evaporator	Type	-	Falling Film Type Evaporator	
	Flow Rate	m^3/h	105.3	118.4
		GPM	463.6	521.3
	Pressure Drop	mAq	4.0	3.5
		ftH_2O	13.0	11.6
	Connection	inch	8	8
Condenser	Type	-	Shell & Tube Type Condenser	
	Flow Rate	m^3/h	130.2	146.5
		GPM	573.3	645.0
	Pressure Drop	mAq	2.6	2.7
		ftH_2O	8.6	9.0
	Connection	inch	8	8
Weight	Shipping Weight	kg	6,650	7,100
		lb	14,661	15,653
	Operating Weight	kg	7,450	7,900
		lb	16,424	17,416
Dimension	Length	mm	4,860	4,860
		inch	191.3	191.3
	Width	mm	1,863	1,802
		inch	73.3	70.9
	Height	mm	2,231	2,236
		inch	87.8	88.0
Refrigerant		kg	160 / 160	160 / 160
		lb	353 / 353	353 / 353
Oil		L	26 / 26	28 / 28
		gallon	6.9 / 6.9	7.4 / 7.4

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 60 Hz

Manufactured in Korea

(SI) Glycol Water : 0 / -5°C, Cooling Water : 30 / 35°C

(IP) Glycol Water : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW008CA1C	RCMW010CA1C	RCMW012CA1C	RCMW012CA2C	RCMW014CA1C
Unit Capacity		usRT	40.69	54.17	61.8	53.24	63.65
		kW	143.1	190.5	217.3	187.2	223.8
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	89	123	140	130	158
	Starting Current (380 V)	A	245	317	378	227	363
	RLA (460 V)	A	74	102	116	107	130
	Starting Current (460 V)	A	208	275	337	194	300
	Independent Refrigerant Circuits	EA	1	1	1	2	1
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	27.34	36.39	41.51	35.77	42.76
		GPM	120.4	160.2	182.8	157.5	188.3
	Pressure Drop	mAq	7.8	7.8	5.6	2.2	1.3
		ftH_2O	25.6	25.5	18.5	7.2	4.4
	Connection	inch	4	4	4	5	5
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	33.83	45.34	51.76	45.76	54.78
		GPM	148.9	199.6	227.9	201.5	241.2
	Pressure Drop	mAq	5.5	6.7	4.7	1.6	1.1
		ftH_2O	18.0	21.8	15.3	5.2	3.6
	Connection	inch	4	4	4	5	5
Weight	Shipping Weight	kg	2,650	2,780	3,040	3,760	3,470
		lb	5,842	6,129	6,702	8,289	7,650
	Operating Weight	kg	3,000	3,130	3,390	4,240	3,900
		lb	6,614	6,900	7,474	9,348	8,598
Dimension	Length	mm	2,700	2,700	2,700	3,725	3,700
		inch	106.3	106.3	106.3	146.7	145.7
	Width	mm	1,250	1,290	1,354	1,543	1,155
		inch	49.2	50.8	53.3	60.7	45.5
	Height	mm	2,284	2,292	2,602	1,957	2,710
		inch	89.9	90.2	102.4	77.0	106.7
Refrigerant		kg	140	140	140	100 / 100	170
		lb	309	309	309	220 / 220	375
Oil		L	16	17	19	16 / 16	23
		gallon	4.2	4.5	5.0	4.2 / 4.2	6.1

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 60 Hz

Manufactured in Korea

(SI) Glycol Water : 0 / -5°C, Cooling Water : 30 / 35°C

(IP) Glycol Water : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW016CA1C	RCMW016CA2C	RCMW018CA1C	RCMW018CA2C	RCMW020CA2C
Unit Capacity		usRT	71.86	74.28	84.09	81.73	85.77
		kW	252.7	261.2	295.7	287.4	301.6
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	178	177	199	195	212
	Starting Current (380 V)	A	460	334	513	365	388
	RLA (460 V)	A	147	146	164	161	175
	Starting Current (460 V)	A	358	281	448	311	331
	Independent Refrigerant Circuits	EA	1	2	1	2	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	48.27	49.90	56.49	54.90	57.62
		GPM	212.5	219.7	248.7	241.7	253.7
	Pressure Drop	mAq	1.7	1.8	1.7	2.1	1.3
		ftH_2O	5.5	5.9	5.7	7.0	4.3
	Connection	inch	5	5	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	61.75	63.15	72.11	70.06	73.71
		GPM	271.9	278.0	317.5	308.5	324.5
	Pressure Drop	mAq	1.4	1.5	1.4	1.8	2.5
		ftH_2O	4.5	4.8	4.6	5.8	8.1
	Connection	inch	5	5	5	5	5
Weight	Shipping Weight	kg	3,650	4,350	3,950	4,540	4,860
		lb	8,047	9,590	8,708	10,009	10,714
	Operating Weight	kg	4,080	4,830	4,380	5,020	5,410
		lb	8,995	10,648	9,656	11,067	11,927
Dimension	Length	mm	3,700	3,725	3,700	3,725	3,725
		inch	145.7	146.7	145.7	146.7	146.7
	Width	mm	1,191	1,560	1,191	1,560	1,651
		inch	46.9	61.4	46.9	61.4	65.0
	Height	mm	2,718	2,000	2,723	2,000	2,018
		inch	107.0	78.7	107.2	78.7	79.4
Refrigerant		kg	170	100 / 100	170	100 / 100	110 / 110
		lb	375	220 / 220	375	220 / 220	243 / 243
Oil		L	26	16 / 16	28	16 / 16	16 / 16
		gallon	6.9	4.2 / 4.2	7.4	4.2 / 4.2	4.2 / 4.2

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 60 Hz

Manufactured in Korea

(SI) Glycol Water : 0 / -5°C, Cooling Water : 30 / 35°C

(IP) Glycol Water : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW020CA1C	RCMW022CA2C	RCMW024CA2C	RCMW028CA2C	RCMW032CA2C
Unit Capacity		usRT	94.19	110.0	124.8	143.5	161.3
		kW	331.2	387.0	439.0	504.6	567.1
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	234	246	280	317	353
	Starting Current (380 V)	A	600	440	518	521	637
	RLA (460 V)	A	193	203	231	261	292
	Starting Current (460 V)	A	508	376	453	431	504
	Independent Refrigerant Circuits	EA	1	2	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	63.27	73.92	83.85	96.39	108.3
		GPM	278.6	325.5	369.2	424.4	476.8
	Pressure Drop	mAq	1.6	3.7	3.4	4.0	4.2
		ftH_2O	5.2	12.1	11.2	13.3	13.7
	Connection	inch	5	5	6	6	8
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	80.95	91.62	104.2	119.5	134.2
		GPM	356.4	403.4	458.8	526.1	590.9
	Pressure Drop	mAq	1.5	2.8	3.0	2.8	2.8
		ftH_2O	4.8	9.3	10.0	9.3	9.0
	Connection	inch	5	5	6	6	8
Weight	Shipping Weight	kg	4,210	5,110	5,420	6,060	6,390
		lb	9,281	11,266	11,949	13,360	14,088
	Operating Weight	kg	4,710	5,660	6,100	6,740	7,190
		lb	10,384	12,478	13,448	14,859	15,851
Dimension	Length	mm	3,733	4,727	4,789	4,822	4,860
		inch	147.0	186.1	188.5	189.8	191.3
	Width	mm	1,233	1,601	1,722	1,693	1,863
		inch	48.5	63.0	67.8	66.7	73.3
	Height	mm	2,793	2,000	2,154	2,153	2,231
		inch	110.0	78.7	84.8	84.8	87.8
Refrigerant		kg	200	110 / 110	140 / 140	140 / 140	160 / 160
		lb	441	243 / 243	309 / 309	309 / 309	353 / 353
Oil		L	28	17 / 17	19 / 19	23 / 23	26 / 26
		gallon	7.4	4.5 / 4.5	5.0 / 5.0	6.1 / 6.1	6.9 / 6.9

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Low Temperature 60 Hz

Manufactured in Korea

(SI) Glycol Water : 0 / -5°C, Cooling Water : 30 / 35°C

(IP) Glycol Water : 32 / 23°F, Cooling Water : 86 / 95°F

Model		Units	RCMW036CA2C	RCMW040CA2C
Unit Capacity		usRT	188.6	211.8
		kW	663.1	744.9
Compressor	Starter Type	-	Y-DELTA	Y-DELTA
	RLA (380 V)	A	398	467
	Starting Current (380 V)	A	712	833
	RLA (460 V)	A	329	386
	Starting Current (460 V)	A	613	701
	Independent Refrigerant Circuits	EA	2	2
Evaporator	Type	-	Falling Film Type Evaporator	
	Flow Rate	m^3/h	126.7	142.3
		GPM	557.8	626.5
	Pressure Drop	mAq	4.0	4.2
		ftH_2O	13.1	13.8
	Connection	inch	8	8
Condenser	Type	-	Shell & Tube Type Condenser	
	Flow Rate	m^3/h	156.7	176.2
		GPM	689.9	775.8
	Pressure Drop	mAq	3.1	2.8
		ftH_2O	10.2	9.2
	Connection	inch	8	8
Weight	Shipping Weight	kg	6,930	7,460
		lb	15,278	16,446
	Operating Weight	kg	7,730	8,360
		lb	17,042	18,431
Dimension	Length	mm	4,860	4,881
		inch	191.3	192.2
	Width	mm	1,802	1,921
		inch	70.9	75.6
	Height	mm	2,236	2,422
		inch	88.0	95.4
Refrigerant		kg	160 / 160	180 / 180
		lb	353 / 353	397 / 397
Oil		L	28 / 28	28 / 28
		gallon	7.4 / 7.4	7.4 / 7.4

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW008CA1C	RCKW010CA1C	RCKW012CA2C	RCKW012CA1C
Unit Capacity		usRT	60.96	69.95	77.53	81.68
		kW	214.4	246.0	272.7	287.3
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	177	199	230	226
	Starting Current (380 V)	A	262	320	270	285
	RLA (400 V)	A	168	189	218	215
	Starting Current (400 V)	A	275	337	272	300
	Independent Refrigerant Circuits	EA	1	1	2	1
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	36.80	42.23	46.81	49.32
		GPM	162.0	185.9	206.1	217.1
	Pressure Drop	mAq	5.4	4.8	1.3	1.4
		ftH_2O	17.7	15.7	4.2	4.6
	Connection	inch	4	4	5	5
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	55.49	63.54	70.95	73.51
		GPM	244.3	279.8	312.4	323.7
	Pressure Drop	mAq	8.6	7.3	1.9	2.0
		ftH_2O	28.2	23.9	6.3	6.7
	Connection	inch	4	4	5	5
Weight	Shipping Weight	kg	2,700	3,000	3,870	3,270
		lb	5,952	6,614	8,532	7,209
	Operating Weight	kg	3,050	3,350	4,320	3,720
		lb	6,724	7,385	9,524	8,201
Dimension	Length	mm	2,700	2,700	3,725	3,700
		inch	106.3	106.3	146.7	145.7
	Width	mm	1,290	1,354	1,560	1,155
		inch	50.8	53.3	61.4	45.5
	Height	mm	2,292	2,602	2,000	2,710
		inch	90.2	102.4	78.7	106.7
Refrigerant		kg	100	120	90 / 90	170
		lb	220	265	198 / 198	375
Oil		L	17	19	16 / 16	23
		gallon	4.5	5.0	4.2 / 4.2	6.1

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW014CA2C	RCKW014CA1C	RCKW016CA2C	RCKW016CA1C
Unit Capacity		usRT	91.18	91.52	102.0	105.7
		kW	320.7	321.9	358.7	371.7
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	262	260	288	297
	Starting Current (380 V)	A	332	340	362	427
	RLA (400 V)	A	249	247	274	282
	Starting Current (400 V)	A	333	358	367	448
	Independent Refrigerant Circuits	EA	2	1	2	1
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	55.05	55.26	61.58	63.81
		GPM	242.4	243.3	271.1	280.9
	Pressure Drop	mAq	1.7	1.7	1.7	1.8
		ftH_2O	5.7	5.7	5.5	5.8
	Connection	inch	5	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	82.72	82.92	92.70	95.13
		GPM	364.2	365.1	408.1	418.8
	Pressure Drop	mAq	2.6	2.5	2.4	2.5
		ftH_2O	8.4	8.4	7.9	8.2
	Connection	inch	5	5	5	5
Weight	Shipping Weight	kg	4,210	3,600	4,500	3,820
		lb	9,281	7,937	9,921	8,422
	Operating Weight	kg	4,660	4,050	4,950	4,270
		lb	10,274	8,929	10,913	9,414
Dimension	Length	mm	3,725	3,700	3,725	3,700
		inch	146.7	145.7	146.7	145.7
	Width	mm	1,560	1,191	1,560	1,191
		inch	61.4	46.9	61.4	46.9
	Height	mm	2,000	2,718	2,000	2,723
		inch	78.7	107.0	78.7	107.2
Refrigerant		kg	90 / 90	170	90 / 90	170
		lb	198 / 198	375	198 / 198	375
Oil		L	16 / 16	26	16 / 16	28
		gallon	4.2 / 4.2	6.9	4.2 / 4.2	7.4

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW018CA2C	RCKW018CA1C	RCKW020CA2C	RCKW022CA2C
Unit Capacity		usRT	108.2	120.3	123.9	141.5
		kW	380.4	423.2	435.7	497.5
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	309	328	350	397
	Starting Current (380 V)	A	387	483	438	519
	RLA (400 V)	A	293	312	333	377
	Starting Current (400 V)	A	390	508	442	526
	Independent Refrigerant Circuits	EA	2	1	2	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	65.31	72.65	74.81	85.41
		GPM	287.6	319.9	329.4	376.0
	Pressure Drop	mAq	1.4	1.6	3.0	2.9
		ftH_2O	4.4	5.4	10.0	9.4
	Connection	inch	5	5	5	6
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	98.34	107.7	111.9	127.8
		GPM	433.0	474.2	492.7	562.7
	Pressure Drop	mAq	2.3	2.7	4.3	4.7
		ftH_2O	7.5	8.8	14.2	15.5
	Connection	inch	5	5	5	6
Weight	Shipping Weight	kg	4,800	4,120	5,050	5,340
		lb	10,582	9,083	11,133	11,773
	Operating Weight	kg	5,380	4,700	5,630	6,020
		lb	11,861	10,362	12,412	13,272
Dimension	Length	mm	3,725	3,733	4,727	4,822
		inch	146.7	147.0	186.1	189.8
	Width	mm	1,651	1,233	1,601	1,651
		inch	65.0	48.5	63.0	65.0
	Height	mm	2,018	2,793	2,000	2,155
		inch	79.4	110.0	78.7	84.8
Refrigerant		kg	100 / 100	200	110 / 110	140 / 140
		lb	220 / 220	441	243 / 243	309 / 309
Oil		L	16 / 16	28	17 / 17	19 / 19
		gallon	4.2 / 4.2	7.4	4.5 / 4.5	5.0 / 5.0

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 50 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW024CA2C	RCKW028CA2C	RCKW032CA2C	RCKW036CA2C
Unit Capacity		usRT	165.8	186.3	215.3	244.5
		kW	583.0	655.0	757.0	859.8
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	451	518	591	654
	Starting Current (380 V)	A	511	600	724	811
	RLA (400 V)	A	429	492	562	621
	Starting Current (400 V)	A	515	605	730	820
	Independent Refrigerant Circuits	EA	2	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator			
	Flow Rate	m^3/h	100.1	112.5	130.0	147.6
		GPM	440.7	495.3	572.4	649.9
	Pressure Drop	mAq	3.5	3.6	3.4	3.7
		ftH_2O	11.5	11.9	11.1	12.0
	Connection	inch	6	8	8	8
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	148.3	167.6	192.4	217.5
		GPM	652.9	737.9	847.1	957.6
	Pressure Drop	mAq	4.5	4.4	4.8	4.4
		ftH_2O	14.8	14.5	15.8	14.5
	Connection	inch	6	8	8	8
Weight	Shipping Weight	kg	5,660	6,290	6,670	7,290
		lb	12,478	13,867	14,705	16,072
	Operating Weight	kg	6,340	7,090	7,470	8,270
		lb	13,977	15,631	16,469	18,232
Dimension	Length	mm	4,822	4,860	4,860	4,881
		inch	189.8	191.3	191.3	192.2
	Width	mm	1,693	1,863	1,802	1,921
		inch	66.7	73.3	70.9	75.6
	Height	mm	2,155	2,231	2,236	2,422
		inch	84.8	87.8	88.0	95.4
Refrigerant		kg	140 / 140	160 / 160	160 / 160	180 / 180
		lb	309 / 309	353 / 353	353 / 353	397 / 397
Oil		L	23 / 23	26 / 26	28 / 28	28 / 28
		gallon	6.1 / 6.1	6.9 / 6.9	7.4 / 7.4	7.4 / 7.4

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW008CA1C	RCKW010CA1C	RCKW012CA2C	RCKW012CA1C	RCKW014CA2C
Unit Capacity		usRT	55.31	73.49	79.96	83.59	92.76
		kW	194.5	258.4	281.2	294.0	326.2
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	171	217	231	236	458
	Starting Current (380 V)	A	245	317	278	378	421
	RLA (460 V)	A	141	179	191	195	378
	Starting Current (460 V)	A	208	275	236	337	352
	Independent Refrigerant Circuits	EA	1	1	2	1	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	33.40	44.37	48.28	50.47	56.01
		GPM	147.1	195.4	212.6	222.2	246.6
	Pressure Drop	mAq	4.5	5.2	1.4	1.5	1.8
		ftH_2O	14.8	17.2	4.5	4.8	5.9
	Connection	inch	4	4	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	50.12	66.82	73.43	76.07	85.05
		GPM	220.7	294.2	323.3	334.9	374.5
	Pressure Drop	mAq	7.1	8.0	2.0	2.2	2.7
		ftH_2O	23.2	26.3	6.7	7.1	8.8
	Connection	inch	4	4	5	5	5
Weight	Shipping Weight	kg	2,700	3,000	3,870	3,270	4,210
		lb	5,952	6,614	8,532	7,209	9,281
	Operating Weight	kg	3,050	3,350	4,320	3,720	4,660
		lb	6,724	7,385	9,524	8,201	10,274
Dimension	Length	mm	2,700	2,700	3,725	3,700	3,725
		inch	106.3	106.3	146.7	145.7	146.7
	Width	mm	1,250	1,290	1,560	1,155	1,560
		inch	49.2	50.8	61.4	45.5	61.4
	Height	mm	2,284	2,480	2,000	2,602	2,000
		inch	89.9	97.6	78.7	102.4	78.7
Refrigerant		kg	100	120	90 / 90	170	90 / 90
		lb	220	265	198 / 198	375	198 / 198
Oil		L	16	17	16 / 16	19	16 / 16
		gallon	4.2	4.5	4.2 / 4.2	5.0	4.2 / 4.2

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW014CA1C	RCKW016CA2C	RCKW016CA1C	RCKW018CA1C	RCKW018CA2C
Unit Capacity		usRT	97.77	109.5	110.0	127.0	122.7
		kW	343.8	385.2	386.7	446.6	431.4
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	268	338	330	400	338
	Starting Current (380 V)	A	363	415	460	513	436
	RLA (460 V)	A	221	279	272	331	279
	Starting Current (460 V)	A	300	348	358	448	370
	Independent Refrigerant Circuits	EA	1	2	1	1	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	59.03	66.13	66.39	76.67	74.06
		GPM	259.9	291.2	292.3	337.6	326.1
	Pressure Drop	mAq	2.0	1.9	1.9	1.8	1.7
		ftH_2O	6.5	6.2	6.2	6.0	5.6
	Connection	inch	5	5	5	5	5
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	88.11	99.41	99.66	114.4	111.5
		GPM	387.9	437.7	438.8	503.7	490.9
	Pressure Drop	mAq	2.9	2.7	2.7	3.0	2.9
		ftH_2O	9.4	9.0	9.0	9.8	9.4
	Connection	inch	5	5	5	5	5
Weight	Shipping Weight	kg	3,600	4,500	3,820	4,120	4,800
		lb	7,937	9,921	8,422	9,083	10,582
	Operating Weight	kg	4,050	4,950	4,270	4,700	5,380
		lb	8,929	10,913	9,414	10,362	11,861
Dimension	Length	mm	3,700	3,725	3,700	3,733	3,725
		inch	145.7	146.7	145.7	147.0	146.7
	Width	mm	1,155	1,560	1,191	1,233	1,651
		inch	45.5	61.4	46.9	48.5	65.0
	Height	mm	2,710	2,000	2,718	2,793	2,018
		inch	106.7	78.7	107.0	110.0	79.4
Refrigerant		kg	170	90 / 90	170	200	100 / 100
		lb	375	198 / 198	375	441	220 / 220
Oil		L	23	16 / 16	26	28	16 / 16
		gallon	6.1	4.2 / 4.2	6.9	7.4	4.2 / 4.2

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW020CA2C	RCKW020CA1C	RCKW022CA2C	RCKW024CA2C	RCKW028CA2C
Unit Capacity		usRT	131.7	144.2	148.9	169.7	199.0
		kW	463.2	507.2	523.5	596.6	699.8
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	389	407	429	469	534
	Starting Current (380 V)	A	477	600	533	614	631
	RLA (460 V)	A	321	336	354	387	441
	Starting Current (460 V)	A	404	508	453	532	522
	Independent Refrigerant Circuits	EA	2	1	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator				
	Flow Rate	m^3/h	79.52	87.07	89.88	102.4	120.1
		GPM	350.1	383.4	395.7	450.9	528.8
	Pressure Drop	mAq	3.4	2.1	3.1	3.7	4.1
		ftH_2O	11.2	6.9	10.3	12.0	13.4
	Connection	inch	5	5	6	6	8
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	119.3	129.2	134.5	153.5	178.2
		GPM	525.3	568.9	592.2	675.8	784.6
	Pressure Drop	mAq	4.9	2.7	5.2	4.8	5.0
		ftH_2O	16.1	8.9	17.1	15.8	16.3
	Connection	inch	5	5	6	6	8
Weight	Shipping Weight	kg	5,050	4,390	5,340	5,660	6,290
		lb	11,133	9,678	11,773	12,478	13,867
	Operating Weight	kg	5,630	4,970	6,020	6,340	7,090
		lb	12,412	10,957	13,272	13,977	15,631
Dimension	Length	mm	4,727	3,733	4,822	4,822	4,860
		inch	186.1	147.0	189.8	189.8	191.3
	Width	mm	1,601	1,233	1,651	1,651	1,769
		inch	63.0	48.5	65.0	65.0	69.6
	Height	mm	2,000	2,793	2,155	2,155	2,162
		inch	78.7	110.0	84.8	84.8	85.1
Refrigerant		kg	110 / 110	200	140 / 140	140 / 140	160 / 160
		lb	243 / 243	441	309 / 309	309 / 309	353 / 353
Oil		L	16 / 16	28	17 / 17	19 / 19	23 / 23
		gallon	4.2 / 4.2	7.4	4.5 / 4.5	5.0 / 5.0	6.1 / 6.1

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Heat Pump 60 Hz

Manufactured in Korea

(SI) Chilled Water : 12 / 7°C, Cooling Water : 55 / 60°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 131 / 140°F

Model		Units	RCKW032CA2C	RCKW036CA2C	RCKW040CA2C
Unit Capacity		usRT	223.9	258.4	292.4
		kW	787.3	908.6	1,028
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	656	794	814
	Starting Current (380 V)	A	791	913	1,009
	RLA (460 V)	A	542	656	672
	Starting Current (460 V)	A	631	778	846
	Independent Refrigerant Circuits	EA	2	2	2
Evaporator	Type	-	Falling Film Type Evaporator		
	Flow Rate	m^3/h	135.2	156.0	176.6
		GPM	595.3	686.8	777.5
	Pressure Drop	mAq	3.7	4.0	4.4
		ftH_2O	12.0	13.2	14.5
	Connection	inch	8	8	8
Condenser	Type	-	Shell & Tube Type Condenser		
	Flow Rate	m^3/h	201.5	231.1	260.8
		GPM	887.2	1,017.5	1,148.3
	Pressure Drop	mAq	5.3	5.0	8.5
		ftH_2O	17.3	16.3	28.0
	Connection	inch	8	8	8
Weight	Shipping Weight	kg	6,670	7,290	7,690
		lb	14,705	16,072	16,954
	Operating Weight	kg	7,470	8,270	8,670
		lb	16,469	18,232	19,114
Dimension	Length	mm	4,860	4,863	4,881
		inch	191.3	191.5	192.2
	Width	mm	1,863	1,921	1,921
		inch	73.3	75.6	75.6
	Height	mm	2,231	2,422	2,422
		inch	87.8	95.4	95.4
Refrigerant		kg	160 / 160	180 / 180	180 / 180
		lb	353 / 353	397 / 397	397 / 397
Oil		L	26 / 26	28 / 28	28 / 28
		gallon	6.9 / 6.9	7.4 / 7.4	7.4 / 7.4

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW008CM1A	MCWW010CM1A	MCWW011CM1A	MCWW012CM1A	MCWW014CM1A
Unit Capacity		usRT	77.92	95.48	104.6	117.4	134.7
		kW	274.0	335.8	367.8	412.9	473.7
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	100	119	131	141	170
	Starting Current (380 V)	A	233	270	292	407	447
	RLA (460 V)	A	95	113	125	134	161
	Starting Current (460 V)	A	243	282	305	428	467
	Independent Refrigerant Circuits	EA	1	1	1	1	1
Evaporator	Type	-	Flooded Type Evaporator				
	Flow Rate	m^3/h	47.04	57.65	63.15	70.89	81.32
		GPM	207.1	253.8	278.0	312.1	358.0
	Pressure Drop	mAq	3.52	3.81	3.80	3.76	3.81
		ftH_2O	11.5	12.5	12.5	12.3	12.5
	Connection	inch	4	4	4	4	4
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	56.95	69.73	76.19	85.44	97.99
		GPM	250.7	307.0	335.5	376.2	431.4
	Pressure Drop	mAq	6.85	6.16	6.14	6.52	5.87
		ftH_2O	22.5	20.2	20.1	21.4	19.3
	Connection	inch	4	4	4	4	4
Weight	Shipping Weight	kg	2,680	2,740	2,820	2,900	3,450
		lb	5,909	6,042	6,218	6,395	7,607
	Operating Weight	kg	2,913	3,008	3,131	3,231	3,842
		lb	6,423	6,633	6,904	7,124	8,472
Dimension	Length	mm	3,069	3,069	3,088	3088	3,141
		inch	120.8	120.8	121.6	121.6	123.7
	Width	mm	1,412	1,412	1,466	1,466	1,568
		inch	55.6	55.6	57.7	57.7	61.7
	Height	mm	1,859	1,859	1,879	1,879	1,961
		inch	73.2	73.2	74.0	74.0	77.2
Refrigerant		kg	80	100	110	120	140
		lb	176	221	243	265	309
Oil		L	15	20	23	23	23
		gallon	4.0	5.3	6.1	6.1	6.1

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW016CM1A	MCWW019CM1A	MCWW020CM2A	MCWW022CM2A	MCWW024CM2A
Unit Capacity		usRT	160.3	182.8	193.0	212.0	237.6
		kW	563.9	643.0	678.8	745.7	835.5
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	193	221	238	262	282
	Starting Current (380 V)	A	522	663	390	423	548
	RLA (460 V)	A	183	210	226	249	268
	Starting Current (460 V)	A	545	693	396	430	562
	Independent Refrigerant Circuits	EA	1	1	2	2	2
Evaporator	Type	-	Flooded Type Evaporator				
	Flow Rate	m^3/h	96.81	110.4	116.5	128.0	143.4
		GPM	426.2	486.1	512.9	563.6	631.4
	Pressure Drop	mAq	4.29	4.45	5.48	4.44	5.21
		ftH_2O	14.1	14.6	18.0	14.6	17.1
	Connection	inch	5	5	6	6	6
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	116.6	132.9	140.6	154.0	172.4
		GPM	513.4	585.1	619.0	678.0	759.1
	Pressure Drop	mAq	6.83	7.07	11.1	8.63	9.58
		ftH_2O	22.4	23.2	36.4	28.3	31.4
	Connection	inch	5	5	6	6	6
Weight	Shipping Weight	kg	3,590	3,690	5,300	5,580	6,130
		lb	7,916	8,136	11,687	12,304	13,517
	Operating Weight	kg	4,018	4,164	5,859	6,258	6,839
		lb	8,860	9,182	12,919	13,799	15,080
Dimension	Length	mm	3,179	3,179	4,444	4,444	4,471
		inch	125.2	125.2	175.0	175.0	176.0
	Width	mm	1,568	1,568	1,599	1,599	1,706
		inch	61.7	61.7	63.0	63.0	67.2
	Height	mm	1,961	1,961	1,924	1,924	2,039
		inch	77.2	77.2	75.7	75.7	80.3
Refrigerant		kg	160	190	100 / 100	110 / 110	120 / 120
		lb	353	419	221 / 221	243 / 243	265 / 265
Oil		L	28	28	20 / 20	23 / 23	23 / 23
		gallon	7.4	7.4	5.3 / 5.3	6.1 / 6.1	6.1 / 6.1

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW028CM2A	MCWW030CM2A	MCWW032CM2A	MCWW038CM2A
Unit Capacity		usRT	272.4	298.0	318.9	369.8
		kW	958.0	1,048	1,122	1,301
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	338	352	374	440
	Starting Current (380 V)	A	617	654	710	884
	RLA (460 V)	A	321	335	355	418
	Starting Current (460 V)	A	628	666	723	903
	Independent Refrigerant Circuits	EA	2	2	2	2
Evaporator	Type	-	Flooded Type Evaporator			
	Flow Rate	m^3/h	164.5	179.9	192.5	223.3
		GPM	724.3	792.1	847.6	983.2
	Pressure Drop	mAq	5.45	5.53	5.38	6.86
		ftH_2O	17.9	18.1	17.7	22.5
	Connection	inch	6	6	8	8
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	197.7	216.2	231.0	268.2
		GPM	870.4	951.9	1,017.1	1,180.8
	Pressure Drop	mAq	9.97	9.25	10.6	11.0
		ftH_2O	32.7	30.3	34.8	36.1
	Connection	inch	6	6	8	8
Weight	Shipping Weight	kg	6,800	6,950	7,330	7,480
		lb	14,994	15,325	16,163	16,493
	Operating Weight	kg	7,581	7,829	8,256	8,492
		lb	16,716	17,263	18,204	18,725
Dimension	Length	mm	4,596	4,656	4,701	4,701
		inch	180.9	183.3	185.1	185.1
	Width	mm	1,706	1,706	1,756	1,756
		inch	67.2	67.2	69.1	69.1
	Height	mm	2,073	2,073	2,129	2,129
		inch	81.6	81.6	83.8	83.8
Refrigerant		kg	140 / 140	150 / 150	160 / 160	190 / 190
		lb	309 / 309	331 / 331	353 / 353	419 / 419
Oil		L	23 / 23	28 / 28	28 / 28	28 / 28
		gallon	6.1 / 6.1	7.4 / 7.4	7.4 / 7.4	7.4 / 7.4

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 50 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C
(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW043CM2A	MCWW047CM2A	MCWW054CM2A
Unit Capacity		usRT	428.7	472.1	546.3
		kW	1,508	1,660	1,921
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	505	546	629
	Starting Current (380 V)	A	1,007	1,027	1,203
	RLA (460 V)	A	480	519	597
	Starting Current (460 V)	A	1,034	1,053	1,235
	Independent Refrigerant Circuits	EA	2	2	2
Evaporator	Type	-	Flooded Type Evaporator		
	Flow Rate	m^3/h	258.8	285.1	329.9
		GPM	1,139.5	1,255.3	1,452.5
	Pressure Drop	mAq	6.74	6.52	7.20
		ftH_2O	22.1	21.4	23.6
	Connection	inch	8	10	10
Condenser	Type	-	Shell & Tube Type Condenser		
	Flow Rate	m^3/h	310.5	341.6	392.7
		GPM	1,367.1	1,504.0	1,729.0
	Pressure Drop	mAq	7.87	7.91	9.16
		ftH_2O	25.8	26.0	30.1
	Connection	inch	8	10	10
Weight	Shipping Weight	kg	8,310	9,090	10,560
		lb	18,324	20,043	23,285
	Operating Weight	kg	9,495	10,380	11,932
		lb	20,936	22,888	26,310
Dimension	Length	mm	5,200	5,200	5,600
		inch	204.7	204.7	220.5
	Width	mm	2,020	2,020	2,050
		inch	79.5	79.5	80.7
	Height	mm	2,570	2,570	2,700
		inch	101.2	101.2	106.3
Refrigerant		kg	200 / 200	210 / 210	210 / 210
		lb	441 / 441	463 / 463	463 / 463
Oil		L	40 / 40	40 / 40	53 / 53
		gallon	10.6 / 10.6	10.6 / 10.6	14.0 / 14.0

Note :
1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW008CM1A	MCWW010CM1A	MCWW011CM1A	MCWW012CM1A	MCWW014CM1A
Unit Capacity		usRT	77.59	93.79	106.8	115.1	134.3
		kW	272.9	329.9	375.6	404.7	472.2
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	94	117	133	141	152
	Starting Current (380 V)	A	270	273	328	328	372
	RLA (460 V)	A	78	97	110	117	125
	Starting Current (460 V)	A	240	243	282	282	305
	Independent Refrigerant Circuits	EA	1	1	1	1	1
Evaporator	Type	-	Flooded Type Evaporator				
	Flow Rate	m^3/h	46.84	56.63	64.48	69.48	81.06
		GPM	206.2	249.3	283.9	305.9	356.9
	Pressure Drop	mAq	3.49	3.68	3.95	3.62	3.79
		ftH_2O	11.5	12.1	13.0	11.9	12.4
	Connection	inch	4	4	4	4	4
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	56.72	68.54	77.93	84.01	97.26
		GPM	249.7	301.8	343.1	369.9	428.2
	Pressure Drop	mAq	6.80	5.96	6.40	6.31	5.79
		ftH_2O	22.3	19.6	21.0	20.7	19.0
	Connection	inch	4	4	4	4	4
Weight	Shipping Weight	kg	2,650	2,710	2,790	2,870	3,420
		lb	5,843	5,976	6,152	6,328	7,541
	Operating Weight	kg	2,883	2,978	3,101	3,201	3,812
		lb	6,357	6,566	6,838	7,058	8,405
Dimension	Length	mm	3,069	3,069	3,088	3,088	3,141
		inch	120.8	120.8	121.6	121.6	123.7
	Width	mm	1,412	1,412	1,466	1,466	1,568
		inch	55.6	55.6	57.7	57.7	61.7
	Height	mm	1,859	1,859	1,879	1,879	1,961
		inch	73.2	73.2	74.0	74.0	77.2
Refrigerant		kg	80	100	110	120	140
		lb	176	221	243	265	309
Oil		L	16	15	18	20	20
		gallon	4.2	4.0	4.8	5.3	5.3

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW016CM1A	MCWW018CM1A	MCWW020CM2A	MCWW020CM1A	MCWW022CM2A
Unit Capacity		usRT	161.9	179.7	189.6	193.3	216.5
		kW	569.4	631.8	666.9	679.9	761.4
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	200	211	234	225	264
	Starting Current (380 V)	A	583	643	390	728	461
	RLA (460 V)	A	165	175	193	186	218
	Starting Current (460 V)	A	467	498	340	545	391
	Independent Refrigerant Circuits	EA	1	1	2	1	2
Evaporator	Type	-	Flooded Type Evaporator				
	Flow Rate	m^3/h	97.76	108.5	114.5	116.7	130.7
		GPM	430.4	477.7	504.1	513.8	575.5
	Pressure Drop	mAq	4.37	4.31	5.30	3.98	4.62
		ftH_2O	14.3	14.1	17.4	13.1	15.2
	Connection	inch	5	5	6	6	6
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	117.8	130.4	138.2	140.5	157.5
		GPM	518.7	574.1	608.5	618.6	693.5
	Pressure Drop	mAq	6.96	6.82	10.7	5.77	9.00
		ftH_2O	22.8	22.4	35.1	18.9	29.5
	Connection	inch	5	5	6	6	6
Weight	Shipping Weight	kg	3,560	3,660	5,240	3,730	5,520
		lb	7,850	8,070	11,554	8,225	12,172
	Operating Weight	kg	3,988	4,124	5,799	4,275	6,198
		lb	8,794	9,093	12,787	9,426	13,667
Dimension	Length	mm	3,179	3,179	4,444	3,179	4,444
		inch	125.2	125.2	175.0	125.2	175.0
	Width	mm	1,568	1,568	1,599	1,568	1,599
		inch	61.7	61.7	63.0	61.7	63.0
	Height	mm	1,961	1,961	1,924	1,961	1,924
		inch	77.2	77.2	75.7	77.2	75.7
Refrigerant		kg	160	180	100 / 100	200	110 / 110
		lb	353	397	221 / 221	441	243 / 243
Oil		L	23	28	15 / 15	28	18 / 18
		gallon	6.1	7.4	4.0 / 4.0	7.4	4.8 / 4.8

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

Model		Units	MCWW024CM2A	MCWW026CM2A	MCWW028CM2A	MCWW032CM2A	MCWW037CM2A
Unit Capacity		usRT	232.8	254.4	271.5	321.8	357.1
		kW	818.7	894.7	954.9	1,132	1,256
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	282	294	302	392	414
	Starting Current (380 V)	A	469	520	523	780	851
	RLA (460 V)	A	233	243	249	324	342
	Starting Current (460 V)	A	399	427	430	630	669
	Independent Refrigerant Circuits	EA	2	2	2	2	2
Evaporator	Type	-	Flooded Type Evaporator				
	Flow Rate	m^3/h	140.6	153.6	163.9	194.3	215.6
		GPM	619.0	676.3	721.6	855.5	949.3
	Pressure Drop	mAq	5.01	5.92	5.41	5.47	6.42
		ftH_2O	16.4	19.4	17.7	17.9	21.1
	Connection	inch	6	6	6	8	8
Condenser	Type	-	Shell & Tube Type Condenser				
	Flow Rate	m^3/h	169.5	184.9	196.2	233.5	258.5
		GPM	746.3	814.1	863.8	1,028.1	1,138.1
	Pressure Drop	mAq	9.28	10.9	9.84	10.9	10.3
		ftH_2O	30.4	35.8	32.3	35.8	33.8
	Connection	inch	6	6	6	8	8
Weight	Shipping Weight	kg	6,070	6,110	6,740	7,270	7,420
		lb	13,384	13,473	14,862	16,030	16,361
	Operating Weight	kg	6,779	6,839	7,521	8,196	8,422
		lb	14,948	15,080	16,584	18,072	18,571
Dimension	Length	mm	4,471	4,471	4,596	4,414	4,414
		inch	176.0	176.0	180.9	173.8	173.8
	Width	mm	1,706	1,706	1,706	1,756	1,756
		inch	67.2	67.2	67.2	69.1	69.1
	Height	mm	2,039	2,039	2,073	2,129	2,129
		inch	80.3	80.3	81.6	83.8	83.8
Refrigerant		kg	120 / 120	130 / 130	140 / 140	160 / 160	190 / 190
		lb	265 / 265	287 / 287	309 / 309	353 / 353	419 / 419
Oil		L	20 / 20	23 / 23	20 / 20	23 / 23	28 / 28
		gallon	5.3 / 5.3	6.1 / 6.1	5.3 / 5.3	6.1 / 6.1	7.4 / 7.4

Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

Chiller 60 Hz

Manufactured in China

(SI) Chilled Water : 12 / 7°C, Cooling Water : 30 / 35°C

(IP) Chilled Water : 53.6 / 44.6°F, Cooling Water : 86 / 95°F

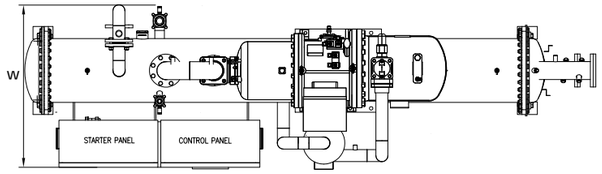
Model		Units	MCWW039CM2A	MCWW044CM2A	MCWW050CM2A	MCWW056CM2A
Unit Capacity		usRT	385.1	441.2	505.0	574.5
		kW	1,355	1,552	1,776	2,020
Compressor	Starter Type	-	Y-DELTA	Y-DELTA	Y-DELTA	Y-DELTA
	RLA (380 V)	A	438	500	608	671
	Starting Current (380 V)	A	948	1,074	1,250	1,282
	RLA (460 V)	A	362	413	502	555
	Starting Current (460 V)	A	727	900	1,045	1,071
	Independent Refrigerant Circuits	EA	2	2	2	2
Evaporator	Type	-	Flooded Type Evaporator			
	Flow Rate	m^3/h	232.5	266.4	304.9	346.8
		GPM	1,023.7	1,172.9	1,342.4	1,526.9
	Pressure Drop	mAq	7.40	7.11	7.39	7.90
		ftH_2O	24.3	23.3	24.2	25.9
	Connection	inch	8	8	10	10
Condenser	Type	-	Shell & Tube Type Condenser			
	Flow Rate	m^3/h	278.8	320.1	367.0	416.4
		GPM	1,227.5	1,409.4	1,615.9	1,833.4
	Pressure Drop	mAq	10.6	8.33	9.05	10.2
		ftH_2O	34.8	27.3	29.7	33.5
	Connection	inch	8	8	10	10
Weight	Shipping Weight	kg	7,480	7,710	8,910	9,600
		lb	16,493	17,001	19,647	21,168
	Operating Weight	kg	8,390	8,895	10,200	10,972
		lb	18,500	19,613	22,491	24,193
Dimension	Length	mm	4,414	4,750	5,200	5,300
		inch	173.8	187.0	204.7	208.7
	Width	mm	1,783	2,020	2,020	2,050
		inch	70.2	79.5	79.5	80.7
	Height	mm	2,129	2,570	2,570	2,700
		inch	83.8	101.2	101.2	106.3
Refrigerant		kg	200 / 200	200 / 200	210 / 210	210 / 210
		lb	441 / 441	441 / 441	463 / 463	463 / 463
Oil		L	28 / 28	28 / 28	40 / 40	40 / 40
		gallon	7.4 / 7.4	7.4 / 7.4	10.6 / 10.6	10.6 / 10.6

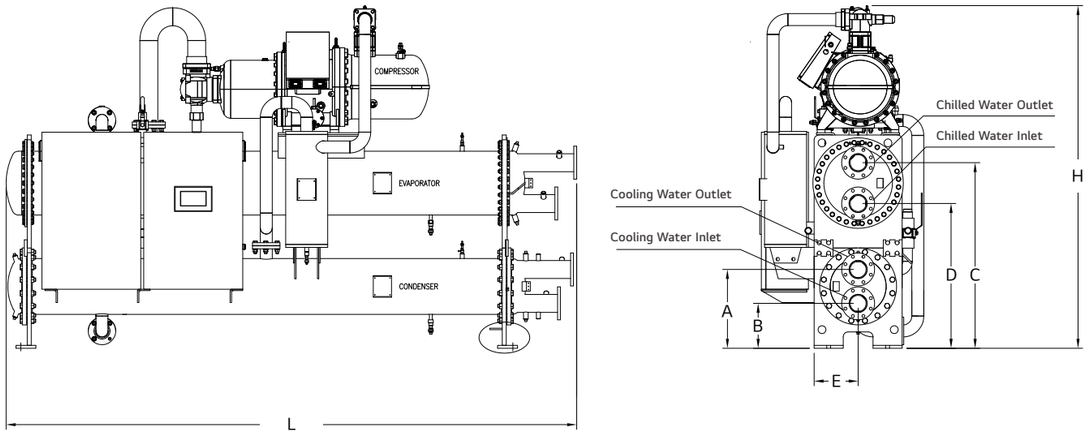
Note :

1. 1 usRT = 3,024 kcal/hr = 3.517 kW, 1 mH_2O = 9.8 kPa.
2. Fouling factor of water in condenser is 0.0440 $m^2 \cdot °C/kW$, in evaporator is 0.0176 $m^2 \cdot °C/kW$.
3. Specifications may be changed without prior notification.
4. Please contact LG for any inquiries regarding additional voltages or specification requirements.

1 Compressor Model (SI Unit)

Manufactured in Korea



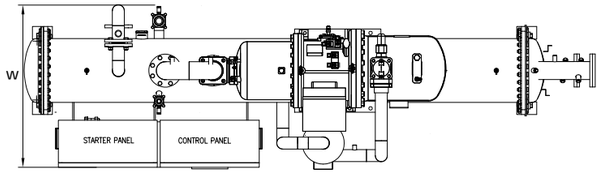


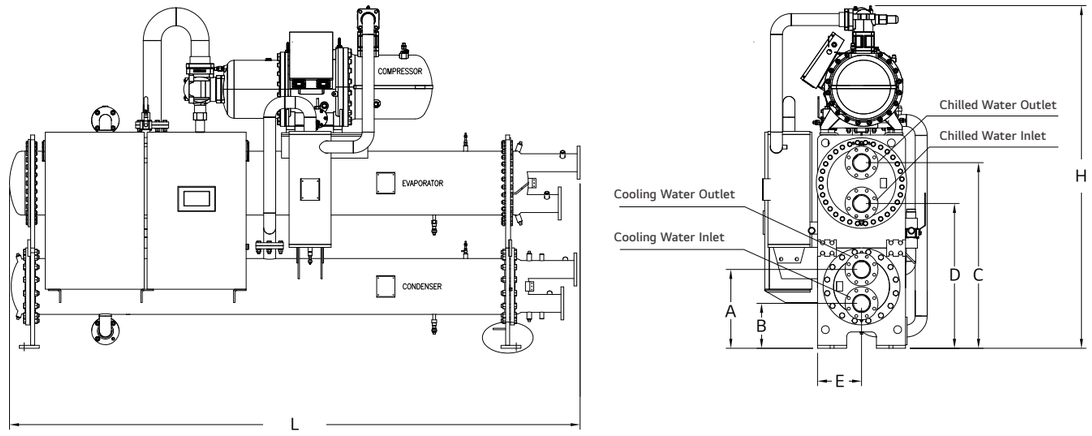
Tolerance : Chiller dimension ±50, Pipe dimension ±30 [Unit : mm]

Hz	Model	L	W	H	A	B	C	D	E
60 Hz	RCWW008CA1C	2,700	1,250	2,284	499	279	1,206	946	360
	RCWW010CA1C	2,713	1,290	2,480	620	360	1,371	1,110	338
	RCWW012CA1C	3,700	1,155	2,602	609	359	1,470	1,210	338
	RCWW014CA1C	3,700	1,155	2,710	609	359	1,470	1,210	338
	RCWW016CA1C	3,700	1,191	2,718	609	359	1,470	1,210	338
	RCWW018CA1C	3,733	1,233	2,793	594	344	1,470	1,210	373
	RCWW020CA1C	3,733	1,233	2,793	599	339	1,470	1,210	373
50 Hz	RCWW008CA1C	2,700	1,250	2,292	499	279	1,206	946	360
	RCWW010CA1C	2,713	1,290	2,522	620	360	1,371	1,110	338
	RCWW012CA1C	3,700	1,155	2,714	609	359	1,470	1,210	338
	RCWW014CA1C	3,700	1,155	2,711	609	359	1,470	1,210	338
	RCWW016CA1C	3,700	1,191	2,731	609	359	1,470	1,210	338
	RCWW018CA1C	3,733	1,233	2,793	594	344	1,470	1,210	373

1 Compressor Model (IP Unit)

Manufactured in Korea



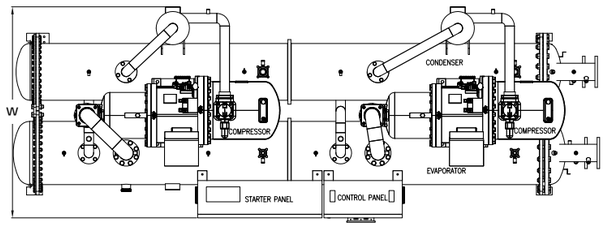


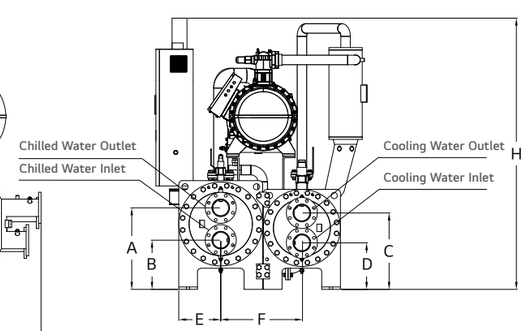
Tolerance : Chiller dimension ±2.0, Pipe dimension ±1.2 [Unit : inch]

Hz	Model	L	W	H	A	B	C	D	E
60 Hz	RCWW008CA1C	106.3	49.2	89.9	19.6	11.0	47.5	37.2	14.2
	RCWW010CA1C	106.8	50.8	97.6	24.4	14.2	54.0	43.7	13.3
	RCWW012CA1C	145.7	45.5	102.4	24.0	14.1	57.9	47.6	13.3
	RCWW014CA1C	145.7	45.5	106.7	24.0	14.1	57.9	47.6	13.3
	RCWW016CA1C	145.7	46.9	107.0	24.0	14.1	57.9	47.6	13.3
	RCWW018CA1C	147.0	48.5	110.0	23.4	13.5	57.9	47.6	14.7
	RCWW020CA1C	147.0	48.5	110.0	23.6	13.3	57.9	47.6	14.7
50 Hz	RCWW008CA1C	106.3	49.2	90.2	19.6	11.0	47.5	37.2	14.2
	RCWW010CA1C	106.8	50.8	99.3	24.4	14.2	54.0	43.7	13.3
	RCWW012CA1C	145.7	45.5	106.9	24.0	14.1	57.9	47.6	13.3
	RCWW014CA1C	145.7	45.5	106.7	24.0	14.1	57.9	47.6	13.3
	RCWW016CA1C	145.7	46.9	107.5	24.0	14.1	57.9	47.6	13.3
	RCWW018CA1C	147.0	48.5	110.0	23.4	13.5	57.9	47.6	14.7

2 Compressor Model (SI Unit)

Manufactured in Korea



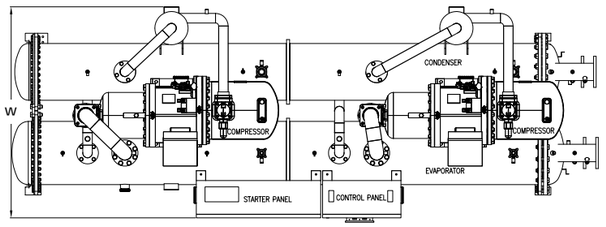


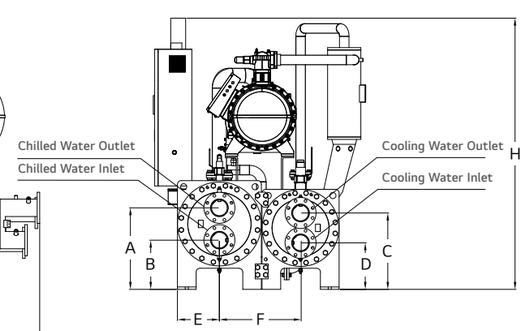
Tolerance : Chiller dimension ±50, Pipe dimension ±30 [Unit : mm]

Hz	Model	L	W	H	A	B	C	D	E	F
60 Hz	RCWW012CA2C	3,725	1,560	2,000	603	343	572	322	337	653
	RCWW014CA2C	3,725	1,560	2,000	603	343	572	322	337	653
	RCWW016CA2C	3,725	1,560	2,000	591	331	572	322	337	653
	RCWW018CA2C	3,731	1,666	2,068	692	392	597	322	373	714
	RCWW020CA2C	4,727	1,601	2,000	591	331	572	322	337	653
	RCWW022CA2C	4,822	1,651	2,155	591	331	572	322	337	653
	RCWW024CA2C	4,789	1,722	2,154	672	372	577	317	373	714
	RCWW028CA2C	4,837	1,813	2,138	677	367	661	301	398	775
	RCWW032CA2C	4,860	1,863	2,231	667	346	661	301	398	775
	RCWW036CA2C	4,863	1,921	2,422	728	428	682	362	423	825
	RCWW040CA2C	4,881	1,921	2,422	728	428	682	362	423	825
50 Hz	RCWW012CA2C	3,725	1,560	2,000	603	343	572	322	337	653
	RCWW014CA2C	3,725	1,560	2,000	603	343	572	322	337	653
	RCWW016CA2C	3,725	1,560	2,000	591	331	572	322	337	653
	RCWW018CA2C	3,731	1,666	2,068	692	392	597	322	373	714
	RCWW020CA2C	4,727	1,601	2,000	591	331	572	322	337	653
	RCWW022CA2C	4,822	1,651	2,155	591	331	572	322	337	653
	RCWW024CA2C	4,789	1,722	2,154	672	372	577	317	373	714
	RCWW028CA2C	4,837	1,813	2,138	677	367	661	301	398	775
	RCWW032CA2C	4,860	1,802	2,236	667	346	661	301	398	775
	RCWW036CA2C	4,881	1,921	2,422	728	428	682	362	423	825

2 Compressor Model (IP Unit)

Manufactured in Korea



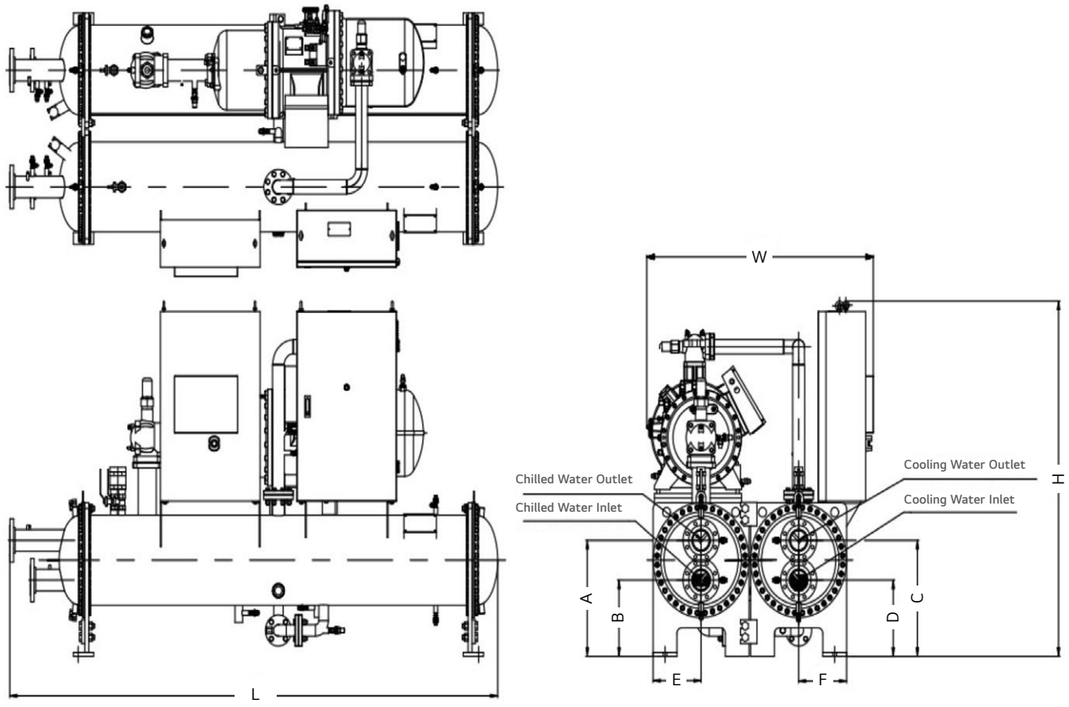


Tolerance : Chiller dimension ±2.0, Pipe dimension ±1.2 [Unit : inch]

Hz	Model	L	W	H	A	B	C	D	E	F
60 Hz	RCWW012CA2C	146.7	61.4	78.7	23.7	13.5	22.5	12.7	13.3	25.7
	RCWW014CA2C	146.7	61.4	78.7	23.7	13.5	22.5	12.7	13.3	25.7
	RCWW016CA2C	146.7	61.4	78.7	23.3	13.0	22.5	12.7	13.3	25.7
	RCWW018CA2C	146.9	65.6	81.4	27.2	15.4	23.5	12.7	14.7	28.1
	RCWW020CA2C	186.1	63.0	78.7	23.3	13.0	22.5	12.7	13.3	25.7
	RCWW022CA2C	189.8	65.0	84.8	23.3	13.0	22.5	12.7	13.3	25.7
	RCWW024CA2C	188.5	67.8	84.8	26.5	14.6	22.7	12.5	14.7	28.1
	RCWW028CA2C	190.4	71.4	84.2	26.7	14.4	26.0	11.9	15.7	30.5
	RCWW032CA2C	191.3	73.3	87.8	26.3	13.6	26.0	11.9	15.7	30.5
	RCWW036CA2C	191.5	75.6	95.4	28.7	16.9	26.9	14.3	16.7	32.5
	RCWW040CA2C	192.2	75.6	95.4	28.7	16.9	26.9	14.3	16.7	32.5
50 Hz	RCWW012CA2C	146.7	61.4	78.7	23.7	13.5	22.5	12.7	13.3	25.7
	RCWW014CA2C	146.7	61.4	78.7	23.7	13.5	22.5	12.7	13.3	25.7
	RCWW016CA2C	146.7	61.4	78.7	23.3	13.0	22.5	12.7	13.3	25.7
	RCWW018CA2C	146.9	65.6	81.4	27.2	15.4	23.5	12.7	14.7	28.1
	RCWW020CA2C	186.1	63.0	78.7	23.3	13.0	22.5	12.7	13.3	25.7
	RCWW022CA2C	189.8	65.0	84.8	23.3	13.0	22.5	12.7	13.3	25.7
	RCWW024CA2C	188.5	67.8	84.8	26.5	14.6	22.7	12.5	14.7	28.1
	RCWW028CA2C	190.4	71.4	84.2	26.7	14.4	26.0	11.9	15.7	30.5
	RCWW032CA2C	191.3	70.9	88.0	26.3	13.6	26.0	11.9	15.7	30.5
	RCWW036CA2C	192.2	75.6	95.4	28.7	16.9	26.9	14.3	16.7	32.5

1 Compressor Model (SI Unit)

Manufactured in China

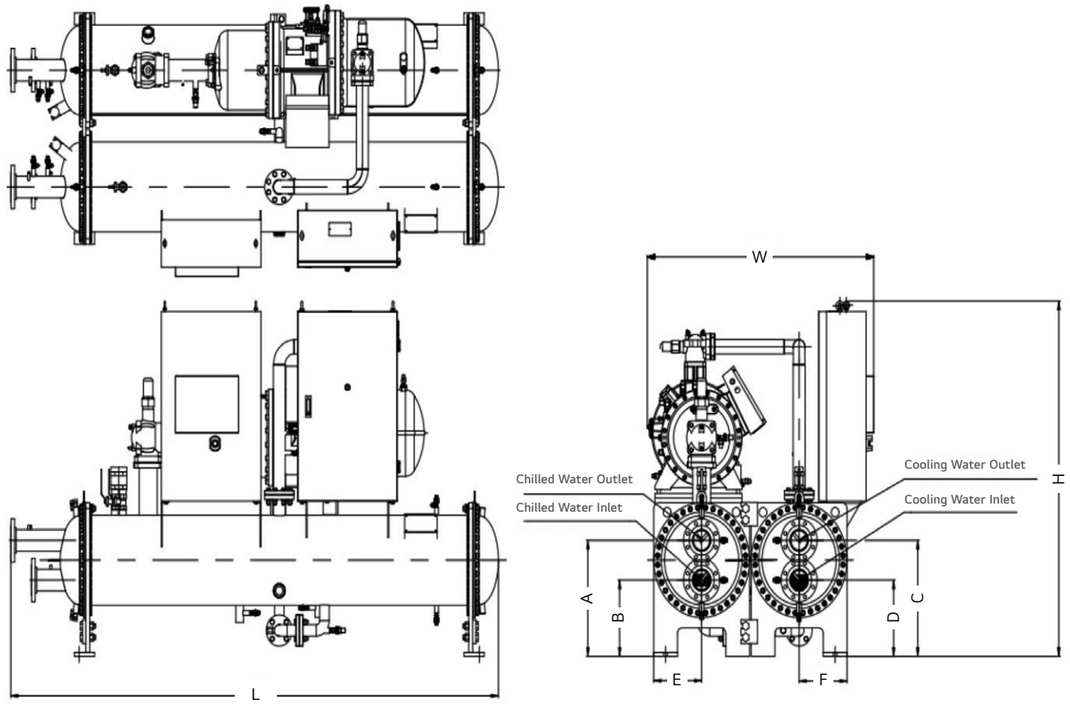


Tolerance : Chiller dimension ±50, Pipe dimension ±30 [Unit : mm]

Frequency	Sort	L	W	H	A	B	C	D	E	F
50 Hz	MCWW008CM1A	3,069	1,412	1,859	592	382	592	382	303	303
	MCWW010CM1A	3,069	1,412	1,859	592	382	592	382	303	303
	MCWW011CM1A	3,088	1,466	1,879	670	410	670	410	330	330
	MCWW012CM1A	3,088	1,466	1,879	670	410	670	410	330	330
	MCWW014CM1A	3,141	1,568	1,961	675	375	675	375	355	355
	MCWW016CM1A	3,179	1,568	1,961	675	375	675	375	355	355
	MCWW019CM1A	3,179	1,568	1,961	675	375	675	375	355	355
60 Hz	MCWW008CM1A	3,069	1,412	1,859	592	382	592	382	303	303
	MCWW010CM1A	3,069	1,412	1,859	592	382	592	382	303	303
	MCWW011CM1A	3,088	1,466	1,879	670	410	670	410	330	330
	MCWW012CM1A	3,088	1,466	1,879	670	410	670	410	330	330
	MCWW014CM1A	3,141	1,568	1,961	675	375	675	375	355	355
	MCWW016CM1A	3,179	1,568	1,961	675	375	675	375	355	355
	MCWW018CM1A	3,179	1,568	1,961	675	375	675	375	355	355
	MCWW020CM1A	3,179	1,568	1,961	697	397	697	397	383	383

1 Compressor Model (IP Unit)

Manufactured in China

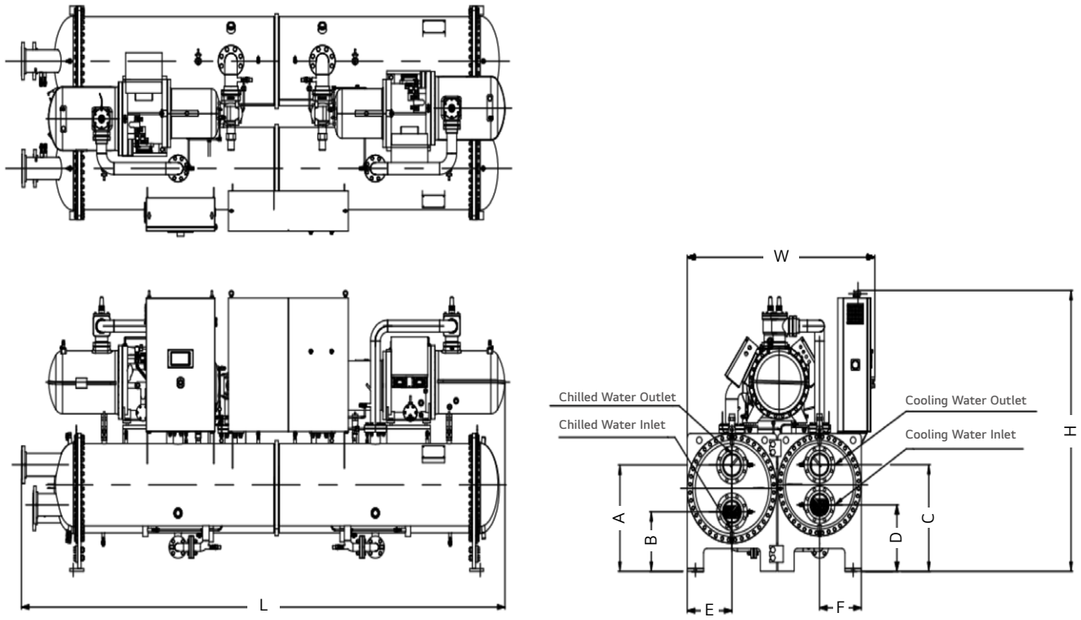


Tolerance : Chiller dimension ±2.0, Pipe dimension ±1.2 [Unit : inch]

Frequency	Sort	L	W	H	A	B	C	D	E	F
50 Hz	MCWW008CM1A	120.8	55.6	73.2	23.3	15.0	23.3	15.0	11.9	11.9
	MCWW010CM1A	120.8	55.6	73.2	23.3	15.0	23.3	15.0	11.9	11.9
	MCWW011CM1A	121.6	57.7	74.0	26.4	16.1	26.4	16.1	13.0	13.0
	MCWW012CM1A	121.6	57.7	74.0	26.4	16.1	26.4	16.1	13.0	13.0
	MCWW014CM1A	123.7	61.7	77.2	26.6	14.8	26.6	14.8	14.0	14.0
	MCWW016CM1A	125.2	61.7	77.2	26.6	14.8	26.6	14.8	14.0	14.0
	MCWW019CM1A	125.2	61.7	77.2	26.6	14.8	26.6	14.8	14.0	14.0
60 Hz	MCWW008CM1A	120.8	55.6	73.2	23.3	15.0	23.3	15.0	11.9	11.9
	MCWW010CM1A	120.8	55.6	73.2	23.3	15.0	23.3	15.0	11.9	11.9
	MCWW011CM1A	121.6	57.7	74.0	26.4	16.1	26.4	16.1	13.0	13.0
	MCWW012CM1A	121.6	57.7	74.0	26.4	16.1	26.4	16.1	13.0	13.0
	MCWW014CM1A	123.7	61.7	77.2	26.6	14.8	26.6	14.8	14.0	14.0
	MCWW016CM1A	125.2	61.7	77.2	26.6	14.8	26.6	14.8	14.0	14.0
	MCWW018CM1A	125.2	61.7	77.2	26.6	14.8	26.6	14.8	14.0	14.0
	MCWW020CM1A	125.2	61.7	77.2	27.4	15.6	27.4	15.6	15.1	15.1

2 Compressor Model (SI Unit)

Manufactured in China

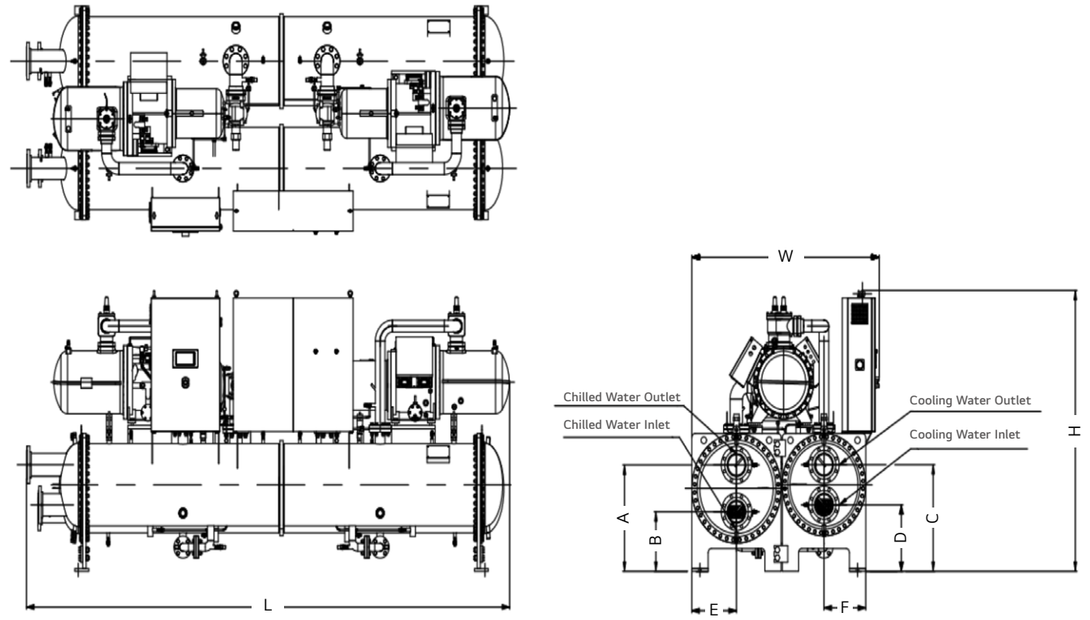


Tolerance : Chiller dimension ±50, Pipe dimension ±30 [Unit : mm]

Frequency	Sort	L	W	H	A	B	C	D	E	F
50 Hz	MCWW020CM2A	4,444	1,599	1,924	677	377	710	450	383	330
	MCWW022CM2A	4,444	1,599	1,924	677	377	710	450	383	330
	MCWW024CM2A	4,471	1,706	2,039	775	425	777	477	410	383
	MCWW028CM2A	4,596	1,706	2,073	775	425	777	477	410	383
	MCWW030CM2A	4,656	1,706	2,073	775	425	777	477	410	383
	MCWW032CM2A	4,701	1,756	2,129	800	450	825	475	435	410
	MCWW038CM2A	4,701	1,756	2,129	800	450	825	475	435	410
	MCWW043CM2A	5,200	2,020	2,570	800	450	900	490	435	475
	MCWW047CM2A	5,200	2,020	2,570	900	490	900	490	475	475
	MCWW054CM2A	5,600	2,050	2,700	900	490	875	465	475	500
60 Hz	MCWW020CM2A	4,444	1,599	1,924	677	377	710	450	383	330
	MCWW022CM2A	4,444	1,599	1,924	677	377	710	450	383	330
	MCWW024CM2A	4,471	1,706	2,039	775	425	777	477	410	383
	MCWW026CM2A	4,471	1,706	2,039	775	425	777	477	410	383
	MCWW028CM2A	4,596	1,706	2,073	775	425	777	477	410	383
	MCWW032CM2A	4,414	1,756	2,129	800	450	825	475	435	410
	MCWW037CM2A	4,414	1,756	2,129	800	450	825	475	435	410
	MCWW039CM2A	4,414	1,783	2,129	800	450	825	475	435	410
	MCWW044CM2A	4,750	2,020	2,570	800	450	900	490	435	475
	MCWW050CM2A	5,200	2,020	2,570	900	490	900	490	475	475
	MCWW056CM2A	5,300	2,050	2,700	900	490	875	465	475	500

2 Compressor Model (IP Unit)

Manufactured in China

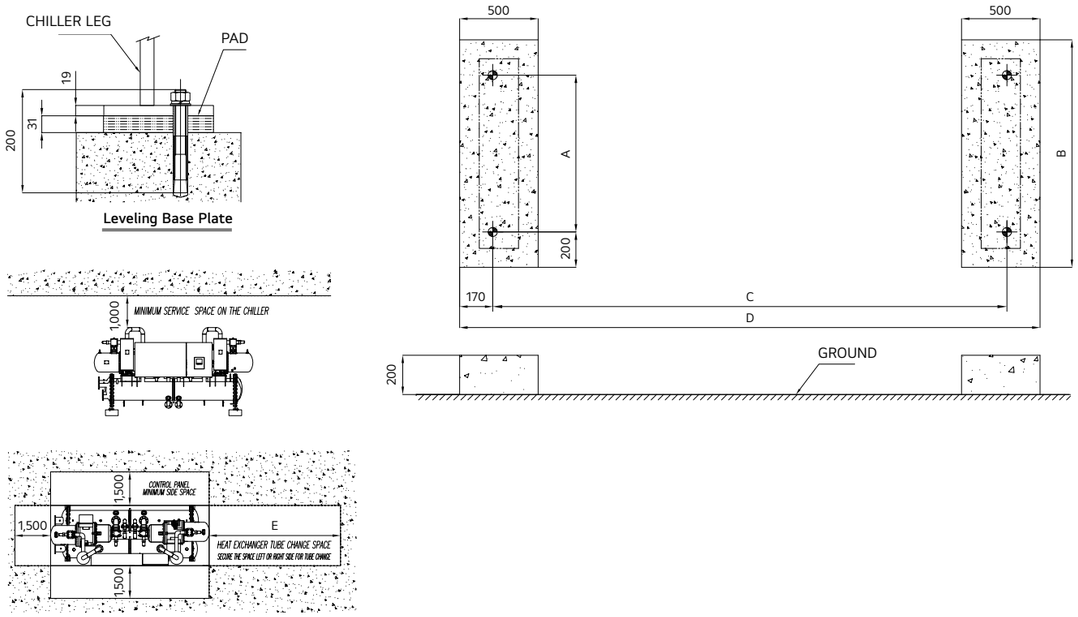


Tolerance : Chiller dimension ±2.0, Pipe dimension ±1.2 [Unit : inch]

Frequency	Sort	L	W	H	A	B	C	D	E	F
50 Hz	MCWW020CM2A	175.0	63.0	75.7	26.7	14.8	28.0	17.7	15.1	13.0
	MCWW022CM2A	175.0	63.0	75.7	26.7	14.8	28.0	17.7	15.1	13.0
	MCWW024CM2A	176.0	67.2	80.3	30.5	16.7	30.6	18.8	16.1	15.1
	MCWW028CM2A	180.9	67.2	81.6	30.5	16.7	30.6	18.8	16.1	15.1
	MCWW030CM2A	183.3	67.2	81.6	30.5	16.7	30.6	18.8	16.1	15.1
	MCWW032CM2A	185.1	69.1	83.8	31.5	17.7	32.5	18.7	17.1	16.1
	MCWW038CM2A	185.1	69.1	83.8	31.5	17.7	32.5	18.7	17.1	16.1
	MCWW043CM2A	204.7	79.5	101.2	31.5	17.7	35.4	19.3	17.1	18.7
	MCWW047CM2A	204.7	79.5	101.2	35.4	19.3	35.4	19.3	18.7	18.7
	MCWW054CM2A	220.5	80.7	106.3	35.4	19.3	34.4	18.3	18.7	19.7
60 Hz	MCWW020CM2A	175.0	63.0	75.7	26.7	14.8	28.0	17.7	15.1	13.0
	MCWW022CM2A	175.0	63.0	75.7	26.7	14.8	28.0	17.7	15.1	13.0
	MCWW024CM2A	176.0	67.2	80.3	30.5	16.7	30.6	18.8	16.1	15.1
	MCWW026CM2A	176.0	67.2	80.3	30.5	16.7	30.6	18.8	16.1	15.1
	MCWW028CM2A	180.9	67.2	81.6	30.5	16.7	30.6	18.8	16.1	15.1
	MCWW032CM2A	173.8	69.1	83.8	31.5	17.7	32.5	18.7	17.1	16.1
	MCWW037CM2A	173.8	69.1	83.8	31.5	17.7	32.5	18.7	17.1	16.1
	MCWW039CM2A	173.8	70.2	83.8	31.5	17.7	32.5	18.7	17.1	16.1
	MCWW044CM2A	187.0	79.5	101.2	31.5	17.7	35.4	19.3	17.1	18.7
	MCWW050CM2A	204.7	79.5	101.2	35.4	19.3	35.4	19.3	18.7	18.7
	MCWW056CM2A	208.7	80.7	106.3	35.4	19.3	34.4	18.3	18.7	19.7

SI Unit

Manufactured in Korea



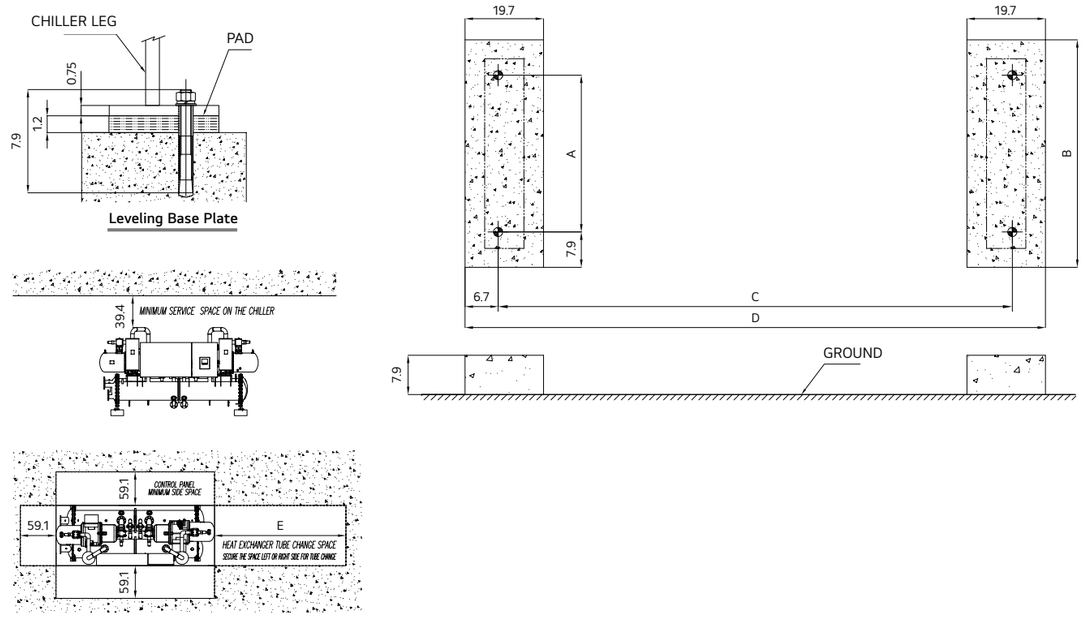
Service Space

[Unit : mm]

Model	A	B	C	D	E
RCWW008CA1C	470	870	2,134	2,474	2,100
RCWW010CA1C	525	925	2,134	2,474	2,100
RCWW012CA1C	525	925	3,134	3,474	3,100
RCWW014CA1C	525	925	3,134	3,474	3,100
RCWW016CA1C	525	925	3,134	3,474	3,100
RCWW018CA1C	595	995	3,134	3,474	3,100
RCWW020CA1C	595	995	3,134	3,474	3,100
RCWW012AC2C	1,150	1,550	3,159	3,499	3,100
RCWW014AC2C	1,150	1,550	3,159	3,499	3,100
RCWW016AC2C	1,150	1,550	3,159	3,499	3,100
RCWW018AC2C	1,275	1,675	3,159	3,499	3,100
RCWW020CA2C	1,150	1,550	4,159	4,499	4,100
RCWW022CA2C	1,275	1,675	4,159	4,499	4,100
RCWW024CA2C	1,275	1,675	4,159	4,499	4,100
RCWW028CA2C	1,395	1,795	4,159	4,499	4,100
RCWW032CA2C	1,395	1,795	4,159	4,499	4,100
RCWW036CA2C	1,495	1,895	4,159	4,499	4,100
RCWW040CA2C	1,495	1,895	4,159	4,499	4,100

IP Unit

Manufactured in Korea



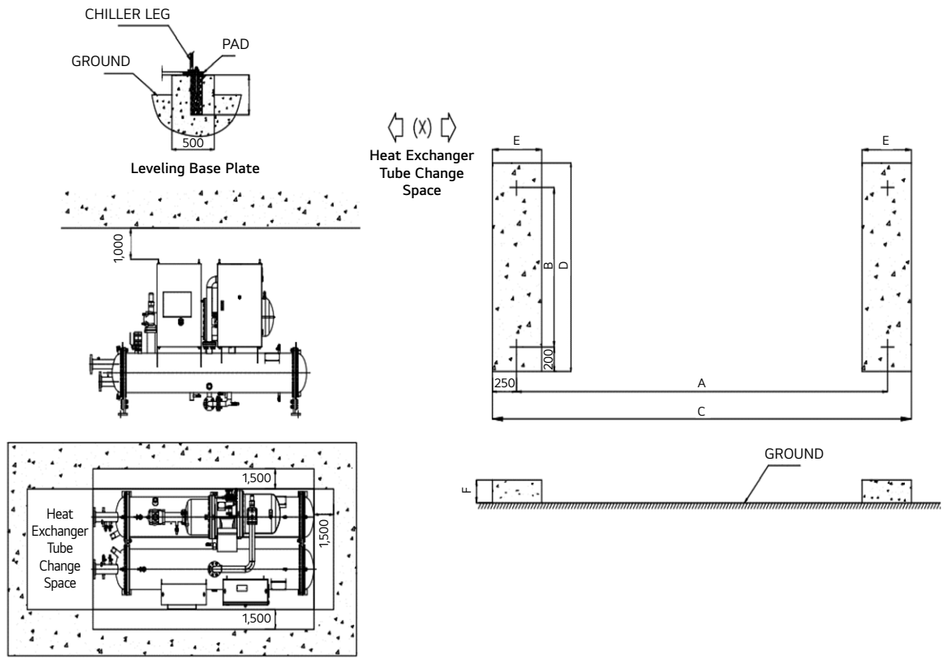
Service Space

[Unit : inch]

Model	A	B	C	D	E
RCWW008CA1C	18.5	34.3	84.0	97.4	82.7
RCWW010CA1C	20.7	36.4	84.0	97.4	82.7
RCWW012CA1C	20.7	36.4	123.4	136.8	122.0
RCWW014CA1C	20.7	36.4	123.4	136.8	122.0
RCWW016CA1C	20.7	36.4	123.4	136.8	122.0
RCWW018CA1C	23.4	39.2	123.4	136.8	122.0
RCWW020CA1C	23.4	39.2	123.4	136.8	122.0
RCWW012AC2C	45.3	61.0	124.4	137.8	122.0
RCWW014AC2C	45.3	61.0	124.4	137.8	122.0
RCWW016AC2C	45.3	61.0	124.4	137.8	122.0
RCWW018AC2C	50.2	65.9	124.4	137.8	122.0
RCWW020CA2C	45.3	61.0	163.7	177.1	161.4
RCWW022CA2C	50.2	65.9	163.7	177.1	161.4
RCWW024CA2C	50.2	65.9	163.7	177.1	161.4
RCWW028CA2C	54.9	70.7	163.7	177.1	161.4
RCWW032CA2C	54.9	70.7	163.7	177.1	161.4
RCWW036CA2C	58.9	74.6	163.7	177.1	161.4
RCWW040CA2C	58.9	74.6	163.7	177.1	161.4

SI Unit

Manufactured in China

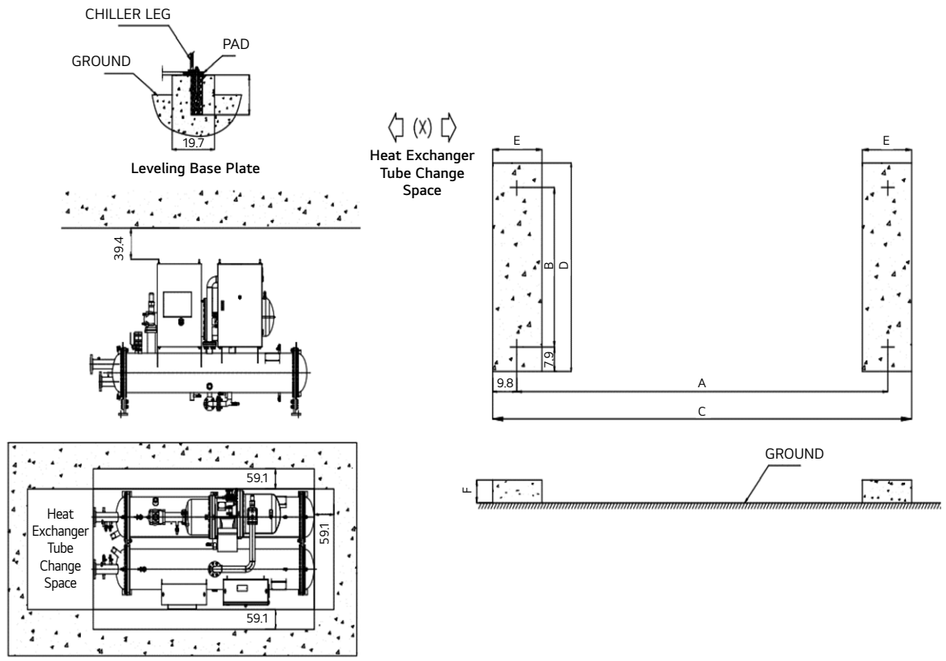


[Unit : mm]

Sort	A	B ± 50 mm	C	D	E	F	X
MCWW008CM1A	2,530	1,472	3,030	1,872	500	150 ~ 200	2,500
MCWW010CM1A	2,530	1,472	3,030	1,872	500	150 ~ 200	2,500
MCWW011CM1A	2,530	1,580	3,030	1,980	500	150 ~ 200	2,500
MCWW012CM1A	2,530	1,580	3,030	1,980	500	150 ~ 200	2,500
MCWW014CM1A	2,530	1,680	3,030	2,080	500	150 ~ 200	2,500
MCWW016CM1A	2,530	1,680	3,030	2,080	500	150 ~ 200	2,500
MCWW018CM1A	2,530	1,680	3,030	2,080	500	150 ~ 200	2,500
MCWW019CM1A	2,530	1,680	3,030	2,080	500	150 ~ 200	2,500
MCWW020CM1A	2,530	1,392	3,030	1,792	500	150 ~ 200	2,500
MCWW020CM2A	3,734	1,286	4,234	1,686	500	150 ~ 200	3,700
MCWW022CM2A	3,734	1,286	4,234	1,686	500	150 ~ 200	3,700
MCWW024CM2A	3,734	1,446	4,234	1,846	500	150 ~ 200	3,700
MCWW026CM2A	3,734	1,446	4,234	1,846	500	150 ~ 200	3,700
MCWW028CM2A	3,734	1,446	4,234	1,846	500	150 ~ 200	3,700
MCWW030CM2A	3,734	1,446	4,234	1,846	500	150 ~ 200	3,700
MCWW032CM2A	3,734	1,550	4,234	1,950	500	150 ~ 200	3,700
MCWW037CM2A	3,734	1,550	4,234	1,950	500	150 ~ 200	3,700
MCWW038CM2A	3,734	1,550	4,234	1,950	500	150 ~ 200	3,700
MCWW039CM2A	3,734	1,550	4,234	1,950	500	150 ~ 200	3,700
MCWW043CM2A	3,734	1,725	4,234	2,125	500	150 ~ 200	3,700
MCWW044CM2A	3,734	1,725	4,234	2,125	500	150 ~ 200	3,700
MCWW047CM2A	3,734	1,760	4,234	2,160	500	150 ~ 200	3,700
MCWW050CM2A	3,734	1,760	4,234	2,160	500	150 ~ 200	3,700
MCWW054CM2A	3,734	1,810	4,234	2,210	500	150 ~ 200	3,700
MCWW056CM2A	3,734	1,810	4,234	2,210	500	150 ~ 200	3,700

IP Unit

Manufactured in China

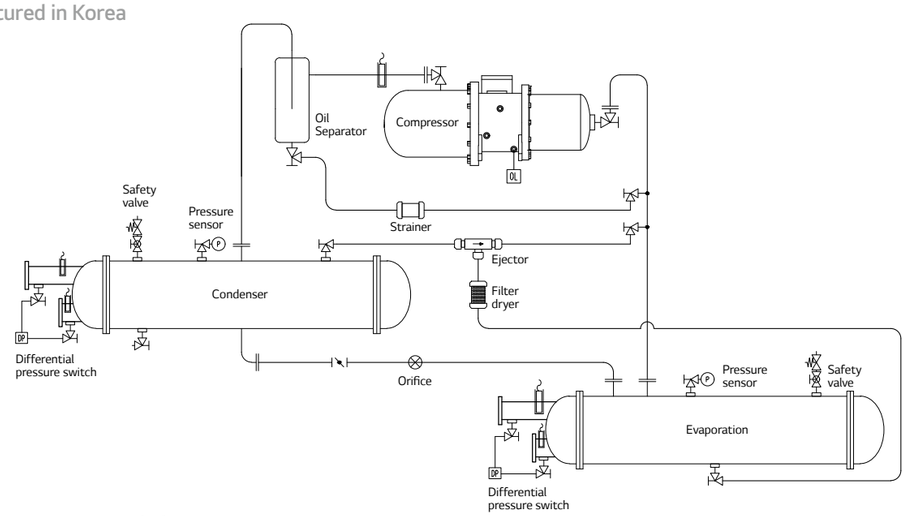


[Unit : inch]

Sort	A	B ± 2 inch	C	D	E	F	X
MCWW008CM1A	99.6	58.0	119.3	73.7	19.7	5.9 ~ 7.9	98.4
MCWW010CM1A	99.6	58.0	119.3	73.7	19.7	5.9 ~ 7.9	98.4
MCWW011CM1A	99.6	62.2	119.3	78.0	19.7	5.9 ~ 7.9	98.4
MCWW012CM1A	99.6	62.2	119.3	78.0	19.7	5.9 ~ 7.9	98.4
MCWW014CM1A	99.6	66.1	119.3	81.9	19.7	5.9 ~ 7.9	98.4
MCWW016CM1A	99.6	66.1	119.3	81.9	19.7	5.9 ~ 7.9	98.4
MCWW018CM1A	99.6	66.1	119.3	81.9	19.7	5.9 ~ 7.9	98.4
MCWW019CM1A	99.6	66.1	119.3	81.9	19.7	5.9 ~ 7.9	98.4
MCWW020CM1A	99.6	54.8	119.3	70.6	19.7	5.9 ~ 7.9	98.4
MCWW020CM2A	147.0	50.6	166.7	66.4	19.7	5.9 ~ 7.9	145.7
MCWW022CM2A	147.0	50.6	166.7	66.4	19.7	5.9 ~ 7.9	145.7
MCWW024CM2A	147.0	56.9	166.7	72.7	19.7	5.9 ~ 7.9	145.7
MCWW026CM2A	147.0	56.9	166.7	72.7	19.7	5.9 ~ 7.9	145.7
MCWW028CM2A	147.0	56.9	166.7	72.7	19.7	5.9 ~ 7.9	145.7
MCWW030CM2A	147.0	56.9	166.7	72.7	19.7	5.9 ~ 7.9	145.7
MCWW032CM2A	147.0	61.0	166.7	76.8	19.7	5.9 ~ 7.9	145.7
MCWW037CM2A	147.0	61.0	166.7	76.8	19.7	5.9 ~ 7.9	145.7
MCWW038CM2A	147.0	61.0	166.7	76.8	19.7	5.9 ~ 7.9	145.7
MCWW039CM2A	147.0	61.0	166.7	76.8	19.7	5.9 ~ 7.9	145.7
MCWW043CM2A	147.0	67.9	166.7	83.7	19.7	5.9 ~ 7.9	145.7
MCWW044CM2A	147.0	67.9	166.7	83.7	19.7	5.9 ~ 7.9	145.7
MCWW047CM2A	147.0	69.3	166.7	85.0	19.7	5.9 ~ 7.9	145.7
MCWW050CM2A	147.0	69.3	166.7	85.0	19.7	5.9 ~ 7.9	145.7
MCWW054CM2A	147.0	71.3	166.7	87.0	19.7	5.9 ~ 7.9	145.7
MCWW056CM2A	147.0	71.3	166.7	87.0	19.7	5.9 ~ 7.9	145.7

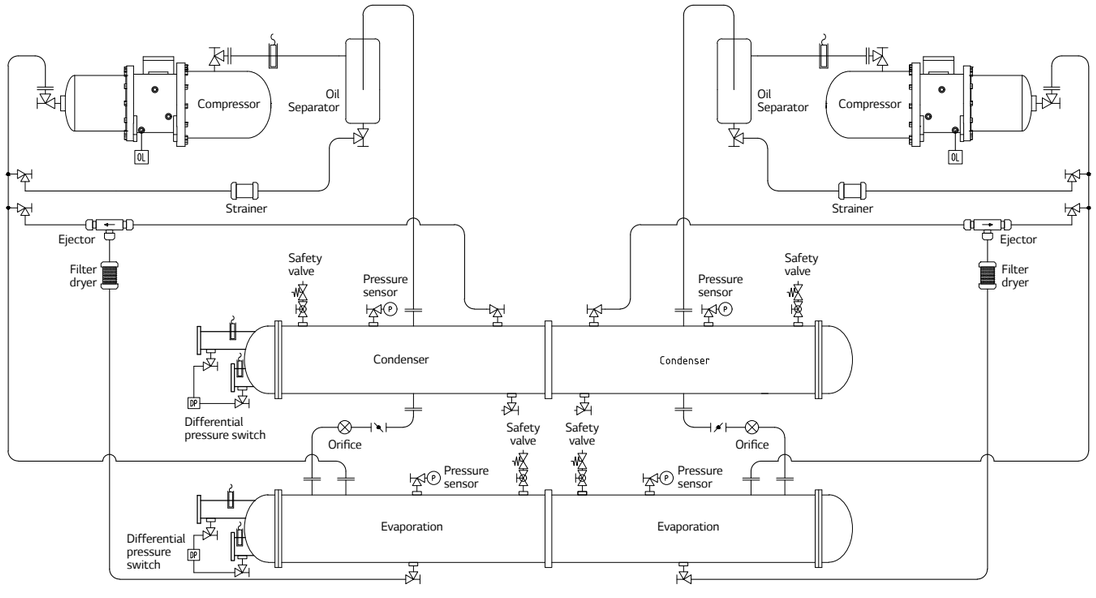
1 Compressor Model

Manufactured in Korea



2 Compressor Model

Manufactured in Korea



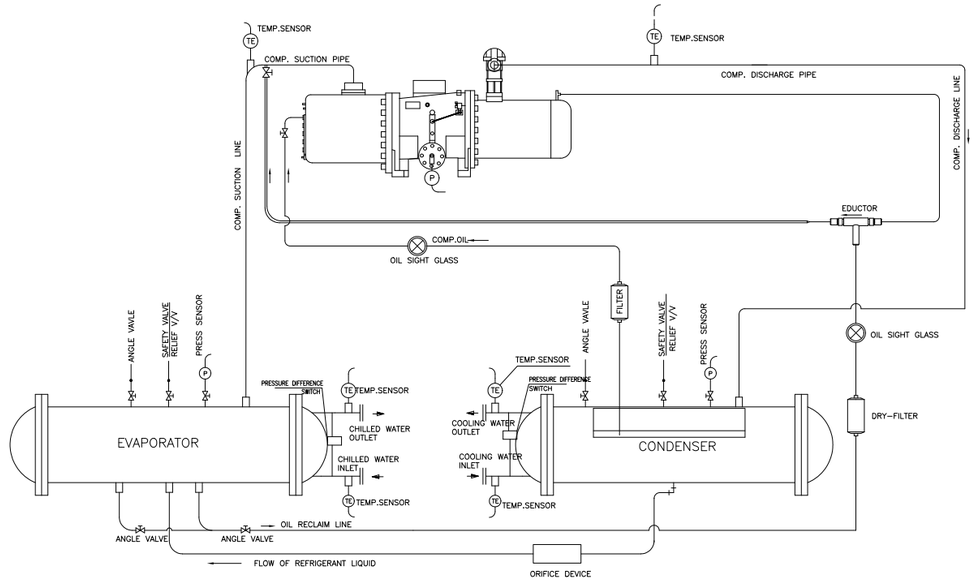
Symbol	Description	Symbol	Description	Symbol	Description	Symbol	Description
	Solenoid valve		Butterfly valve	LP	Low pressure switch		Temperature sensor
	Electric expansion valve		Check valve	DP	Differential pressure switch		Strainer
⊗	Expansion device		Tee	OL	Oil level switch		Filter dryer
	Angle valve		Flange connection	FS	Flow switch		Sight glass
	Ball valve		Reducer	P	Pressure sensor		Ejector
	Safety valve	HP	High pressure switch				

Note:

1. It is possible to differ depend on site condition.

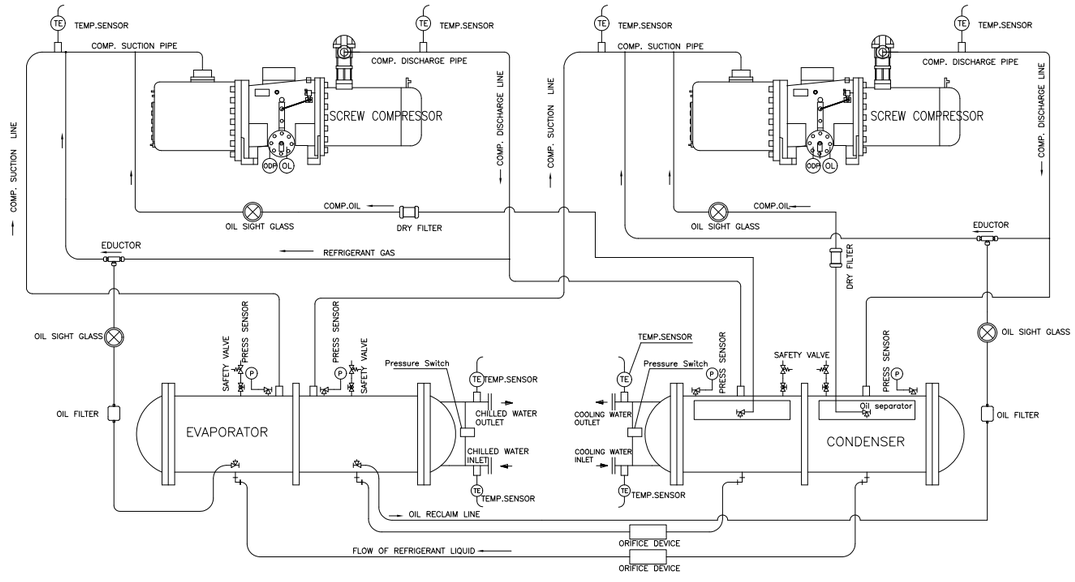
1 Compressor Model

Manufactured in China



2 Compressor Model

Manufactured in China



Pipe Installation

Considerations on Connecting Water Pipes

Install the water pipes to chiller unit considering the following details.
Water piping is not included in the scope of system delivery from LG Electronics.
When installing the chiller, check if the considerations are appropriately applied.

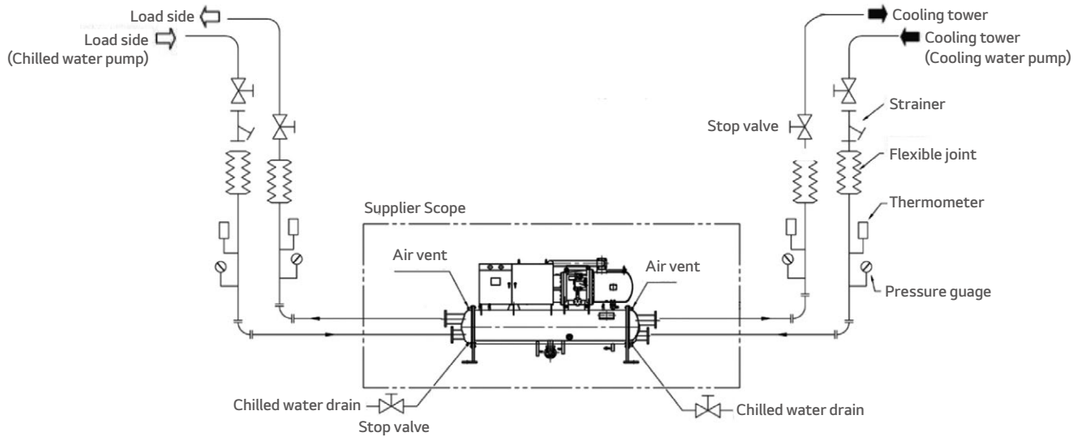


Figure 9 Piping to Chiller Unit (User Installation Scope)

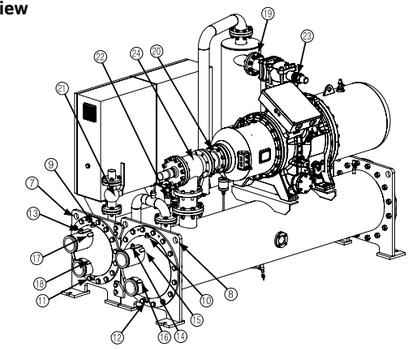
1) Based on the outline drawing (Installation drawing), install the inlet / outlet piping of the chilled water / cooling water. Always check the direction of inlet / outlet, the specification of connecting flanges and the pressure applied.
2) Separate support must be installed aside form that for the chiller so that the load and the vibration of the pipes of the chilled water and cooling water do not transfer to the evaporator and condenser. Also provide ample space for service.
3) Install strainer of 10 mesh or higher on the front side of the inlet pipe of the chilled water and cooling water, so that the heat exchanger tubes of the heat exchanger not to be blocked by sludge which cause pipe damage (Freezing or damage).
4) Provide a device on the outlet side of the chiller to control the flow of the chilled water and cooling water.
5) Provide a device to prevent pressure hunting which may cause malfunction to the flow switch of the chilled water and cooling water.
6) The waterbox must be easy to open to clean the heat exchanger tubes of the heat exchanger. Install the pipe connectors so as to be separated easily without interfering with other pipes when extracting the heat exchanger tubes.
7) Please avoid using a pump with 3,550 / 2,950 rpm (60 / 50 Hz) for chilled water and cooling water, since it is the rpm of the chiller motor, which possibly result in resonance. If unavoidable, install an anti-vibration device.
8) Install accurate thermometer and pressure gauge on the pipe to check the status of the chilled water and cooling water to the chiller.
9) Install air vent valve, drain valve and pipe in the chilled water and cooling water waterboxes. Also install automatic air vent valve on the pipe.
10) Use of inappropriate water can cause sediments, corrosion and scaling which can damage the chiller. Therefore check and manage the water quality as standard. LG Electronics is not responsible for any results from use of the water out of the guaranteed quality.
11) Install the discharge pipe of the relief valve.

Product Structure

※ The parts may vary depending on the production site.

Figure 1 shows the general parts location and components of the water cooled screw chiller.
The location of control panel, type of waterbox, directions of inlet and outlet of the chilled water and cooling water and some pipes may vary by model or customer order. Please check the approved drawings for the details.

Front View



Rear View

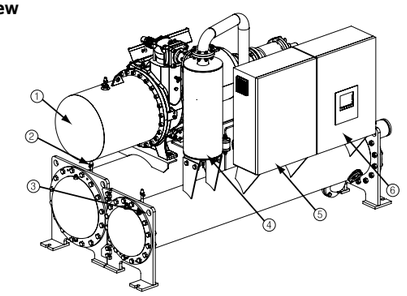


Figure 1. General Structure of Screw Chiller

Component Name

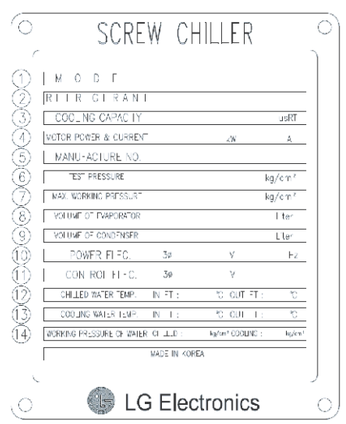
1. Screw compressor
2. Evaporator
3. Condenser
4. Oil separator
5. Starter panel
6. Control panel
7. Lifting hole (4 holes) for condenser
8. Lifting hole (4 holes) for evaporator
9. Air vent for cooling water
10. Air vent for chilled water
11. Drain for cooling water
12. Drain for chilled water
13. Differential pressure switch (Cooling water)
14. Differential pressure switch (Chilled water)
15. Temperature sensor (Chilled water outlet)
16. Temperature sensor (Chilled water inlet)
17. Temperature sensor (Cooling water outlet)
18. Temperature sensor (Cooling water inlet)
19. Temperature sensor (Compressor discharge)
20. Temperature sensor (Compressor suction)
21. Relief valve for condenser
22. Relief valve for evaporator
23. Service valve (Compressor discharge)
24. Service valve (Compressor suction)

Name Plate

※ The parts may vary depending on the production site.

Name plate for the unit is attached on the control panel. General information of the chiller unit can be obtained from the plate and the information of the unit history can be used for quicker service.

Fig. 3. Product Plate



1. Model name
2. Refrigerant
3. Cooling capacity
4. Power and current required for motor
5. Manufacture's serial number
6. Internal pressure test pressure
7. Maximum working pressure (Design pressure)
8. Volume of evaporator
9. Volume of condenser
10. Power electricity
11. Control electricity
12. Temperatures of chilled water inlet / outlet
13. Temperatures of cooling water inlet / outlet
14. Maximum pressure of chilled water and cooling water

Guide Specification

Water-cooled Screw Chiller
RCWW C Series

Contents

1. Range of Application

This specification applies to all the models of Water-cooled SCREW RCWW(C) conducting and selling at LG Electronics.

2. Equipment Features

1) To improve the performance of heat exchange, the gas/liquid refrigerant separator is installed inside falling film type evaporator, and the structure of being able to drip the separated liquid refrigerant uniformly on tube bundle.
2) Cyclone type oil separator with structure that separates oil and refrigerant using vortex and gravity shall be installed.
3) To keep oil concentration inside evaporator at the below standard, oil reclaim system shall be applied.
4) Limit control is implemented to prevent unit stop due to abnormal condition. A control algorithm should be applied to minimize manual reset and restart.
5) This items shall be applied
   - Evaporator pressure transmitter
   - Condenser pressure transmitter
   - Chilled water inlet/outlet temperature sensor
   - Cooling water inlet/outlet temperature sensor
   - Compressor discharge temperature sensor
6) It is designed to be able to check and set the data with 7 inches touch screen controller.
7) An oil level switch should be applied to prevent damage to the compressor in case of insufficient oil.

3. Equipment Specifications

3.1. System Composition

1) The chiller uses the semi-hermetic, rotary twin screw type compressor, to compressing the refrigerant for cooling, and chilled water outlet temperature is PID controlled by microprocessor controller.
2) Steel plate and pipe are performed the surface treatment to prevent corrosion.
3) Before shipping and start-up commissioning, the nitrogen gas shall be charged with a pressure of 0.3 ~ 0.5 kg/cm²G to check whether the product is leaked and prevent the air inflow.
4) Water-cooled screw chiller is all-in-one and produced for convenient installation, operation and maintenance management and compactly to minimize the area of installation and space.
5) The customer supplies only one power wires regardless of compressor quantity.
6) The open wiring method is applied for wiring between the chiller main body and the control panel.

3.2. Performance and Quality

1) The refrigerant, R-134a, environmental refrigerant with Ozone Depleting Potential(ODP) of zero, shall be applied.

3.3. Equipment Specification

3.3.1. Equipment Composition

1) Screw compressor
2) Evaporator
3) Condenser
4) External oil separator
5) Oil reclaim system
6) Ref. piping
7) Safety devices
8) Control panel
9) Starter panel : The stater panel is supplied by the manufacturer with the chiller.

The starter panel is attached and installed to the chiller unit.

3.3.2. Screw Compressor

1) The twin rotor/semi-hermetic type compressor and refrigerant-cooled motor shall be used.
2) A differential pressure type oil lubrication and embedded type filter shall be applied.
3) The compressor embedded type oil separator shall be used and the check valve to prevent the refrigerant from flowing backward on the discharge side shall be installed.
4) By using the slide valve for control the capacity, chiller is used 3 ~ 4 Step Type controllable for 25(35)% ~ 100%.
5) Attaches the discharge/suction shut off V/V.
6) Install the oil level switch(For oil)
7) The power specifications of the motor for compressor is 3P 50 Hz (380, 400, 415 V), 3P 60 Hz(380, 440, 460, 480 V)
8) The starter type of compressor motor is Y-D.

3.3.3. Evaporator

1) The heat exchanger is manufactured in shell & tube type.
2) To improve the performance of heat exchanging, the gas/liquid refrigerant separator is installed inside falling film type evaporator, and the structure of being able to drip the separated liquid refrigerant uniformly on tube bundle.
3) The high-efficiency heat-transfer tubes with seamless phosphorus deoxidized copper shall be used, and the steel plate or steel pipe are used for Shell.
4) The tubes shall be combined with mechanical expansion on the tube sheet so that it can be replaced.
5) The flow detection switch is installed to prevent the chilled water from freezing on the chilled water side.
6) Install oil reclaim tube from evaporator to compressor, to keep oil concentration inside evaporator at a below standard.
7) The heat-transfer tubes shall be machined to improve heat transfer performance inside and outside the tube and parts in contact with tube sheets and tube support plates shall not be machined. The tube support plates for heat-transfer tubes shall be designed for stable support of heat-transfer tubes in accordance with TEMA and ASME standards.
8) The design pressure of the evaporator water box is 10 kg/cm²(150 psig). [Option] 20 kg/cm²(300 psig) can be applied as an option.
9) It should be a structure available to do air vent on top of the water box and drain at the bottom of the water box.

10) Chilled water nozzle inlet/outlet of the is installed on the right side.
[Option] Chilled water nozzle inlet/outlet of the can be installed on the left side as an option.

3.3.4. Condenser

1) The heat exchanger is manufactured in shell & tube type.
2) The high-efficiency heat-transfer tubes with seamless phosphorus deoxidized copper tube shall be used, and the steel plate or steel pipe are used for shell.
3) The tubes shall be combined with mechanical expansion on the tube sheet so that it can be replaced.
4) The condenser must have an anti-collision plate installed at the gas inlet, and the anti-collision plate must have a structure that allows noise reduction and stable diffusion of flow paths.
5) The heat-transfer tubes shall be machined to improve heat transfer performance inside and outside the tube and parts in contact with tube sheets and tube support plates shall not be machined. The tube support plates for heat-transfer tubes shall be designed for stable support of heat-transfer tubes in accordance with TEMA and ASME standards.
6) The design pressure of the condenser water box is 10 kg/cm²(150 psig).
[Option] 20 kg/cm²(300 psig) can be applied as an option.
7) It should be a structure available to do air vent on top of the water box and drain at the bottom of the water box.
8) Cooling water nozzle inlet/outlet of the is installed on the right side.
[Option] cooling water nozzle inlet/outlet of the can be installed on the left side as an option.

3.3.5. External Oil Separator

1) A vertical type of pressure vessel shall be manufactured.
2) The material of shell shall be steel pipe.
3) Cyclone type oil separator with structure that separates oil and refrigerant using vortex and gravity shall be installed

3.3.6. Oil Reclaim System

1) To reclaim oil mixed with the refrigerant from the evaporator to compressor, it should be installed the ejector(Spray ejector) available of oil return without consuming the additional energy.

3.3.7. Refrigerant Pipe

1) The refrigerant pipes are installed for refrigerant flow between each composition to be smooth, using the carbon steel pipe(KSD 3562, SPPS250 SPPS380 STPG370) for pressure pipe and seamless phosphorus deoxidized copper pipe of more than 99.9% purity.
2) Check valve should be installed in the compressor discharge so that discharged refrigerant flow cannot flow backward.
3) From the expansion valve to the evaporator, pipe should be applied insulation to prevent the moisture of the pipe surface from condensing and the occurring of flash gas of refrigerant liquid at the same time.
4) After production and run a leak test, vacuuming should be done completely not to have any moisture inside.

3.3.8. Automatic Control Panel

1) Control device
a. The composition of control panel
The protection grade of control panel is IP41.
The control panel consists of microprocessor controller(Main controller and display), power supply system to supply the stable power, breaker to perform the other control or secure the safety, magnetic contactor, and control relay, and a primary feature of each module is as below.
b. Main controller
It is implemented the control feature optimized to the mechanical device by applying the high-performance microprocessor. the high resolution A/D convertor(Analogue/Digital) shall be applied to display on screen or control by measuring each kind of temperature sensor value in real time.
Also, it makes the customer's building automation ease response because the RS-485 communication port to support the customer's remote surveillance control is embedded in a standard.
It consists of the digital input part to check each kind of operation state of the switch and the digital output part to control the operation of chiller.
Also, the input/output port has a photocoupler blocking each kind of noise. Since all data is transmitted and received with the main module through communication, it secures high reliability by preventing the malfunction caused by electromagnetic wave to happen when transmitting and receiving the data of general cable.
c. Display
The machine run/stop state important for operation, abnormal state, operation data can be checked on the display, and input setting needed to equipment operating.
Also, it made the operator's operation convenience by choosing and displaying the operation state(Temperature, run/stop and save of the peripheral device) into Korean, Chinese and English on the display part.

2) The feature of control device
a. The convenient operating data management
It makes much operation information checked on one screen simultaneously by applying the 7 inches color graphic liquid crystal display. In addition, It also makes analog data(ex: temperature data) used when recording drive operation reports and managing the maintenance by saving 300 cases for each channel in the time interval set by the customer. Also, it makes the trend of temperature change easily identified by displaying the chilled water outlet temperature on a graph in real-time.
b. The safety control algorism
It implement the preventive operation without an abnormal stop in advance by detecting the high/low-pressure sensor, discharge temperature sensor, current sensor, which are the safety device of digital output. It is possible to continuous operate without chiller stop because the algorism that removing the inconvenience of manual reset work to restart by minimizing the number of abnormality occurring is implemented.
c. Self-diagnosis and save of abnormality history
Micom makes monitor the chiller state during chiller stop or running, making a notice to operator using a message or buzzer making an auto-saving of failure data and occurring time which can be utilized in repairing conveniently. Especially, as there is help function on the on the abnormality history, it is possible to respond and make an action promptly because the content about cause of occurrence, inspection and how to react are displayed. In addition, it is also possible to check the operation/abnormality history on the control device because the history is saved up to 300 in order.
d. Optimized AI type control algorism
- Soft start
It makes the input current gradually control to prevent machinery shock caused by sudden increase in load when starting.
- Advanced digital PID control
When starting or changing the operating mode from manual to automation, by perceiving the optimized PID control point automatically and reflecting it in the control equation, compared with the conventional analog control, the digital PID control that combined with soft start makes unnecessary machinery stop minimize and makes more stable and precised temperature control.
* The digital transmitter for evaporator pressure/condenser pressure monitoring.
* The digital transmitter for current display/monitoring.
* Installation of PT 100 sensor for chilled water/cooling water temperature
- Scheduled operating function(Reserved operation)
It makes the convenience on chiller operation by applying the schedule operation function available to choose the run/stop and control temperature setting for each day, particular holiday, or 11 times a day.
e. Strong customer support function
- Communication function for building automation and remote monitoring control
The zero voltage input/output shall be provided to run/stop in the remote or to monitor the run state of the machine using the simple electric wiring.
- Help function
If the breakdown occurs, it promote the operator's convenience by recording failure details, and showing clarification of how to respond if the operator selects the type of failure from the menu.
- Available for support of three languages
It is supported that the function to select/use Korean, Chinese, and English in the operation menu.
f. To operate at partial load condition, the step compressor capacity control method is applied.

3.3.9. Starter Panel

1) The protection grade of starter panel is IP41.
2) The Starter panel power cable is supplied from the top of panel.

3.3.10. Safety Devices

1) The complete compressor protective function from external electric shock shall be provided by embedding the dual protective device about reverse phase/phase loss/overcurrent.
2) Safety device for chilled water and cooling water
a. Chilled water pump interlock point of contact
b. Cooling water pump interlock point of contact
c. The chilled water/cooling water flow differential pressure switch.
d. Chilled water temperature(Low): the below 2.9°C of chilled water outlet temperature
※ The run/stop signal and interlock point of contact for the chilled/cooling water pump is the important safety device for protecting chilled water freezing and safety accidents, so chiller, chilled water pump and cooling water pump should be linked in operation by wiring connection.
※ Also, when several cooling water pipes are connected in parallel, automatic shut-off valve must be installed to prevent water from flowing into the cooling water pipe of the corresponding chiller, and then the automatic shut-off valve must be opened and closed by interlocking with the control device. The interlocking method of the automatic shutoff valve should open and close in synchronization with the cooling water pump run/stop signal provided by the LG Electronics control panel.
e. For the details, it should be discussed with LG Electronics in advance.
3) The chiller protective device
a. [The low-pressure sensor] for protection of the chiller in case of abnormal low pressure of evaporator.
b. [The high-pressure sensor] for protection of the chiller in case of abnormal high pressure of condenser.
c. [The oil level switch] for protection of the compressor in case of abnormal oil level.
d. [The chilled water flow differential pressure switch] for protection of the chiller in case of abnormal chilled water flow.
e. [The cooling water flow differential pressure switch] for protection of the chiller in case of abnormal cooling water flow.
f. [The temperature sensor of chilled water inlet/outlet] to protect the chiller in case of abnormal temperature of chilled water inlet/outlet.
g. [The temperature sensor of cooling water inlet/outlet] to protect the chiller in case of abnormal temperature of cooling water inlet/outlet.
h. [The temperature sensor of compressor discharge] to protect the overheat of the chiller in case of abnormal high discharge temperature.
i. [The protective relay] to protect the overcurrent.
j. [Safety valve] to protect the chiller In case of abnormal high pressure in the evaporator.
k. [Safety valve] to protect the chiller In case of abnormal high pressure in the condenser.
4) Motor/compressor protective device
a. Reverse phase/phase loss protective relay
b. Temperature switch for monitoring of motor winding temperature
c. Temperature sensor for monitoring of compressor discharge temperature

3.3.11. Isolator

1) The vibration proof neoprene pad for vibration isolator device is supplied.
[Option] Virbration spring isolator can be supplied as an option.

4. Scope of Construction

Item	Supplied by	Note
Painting	LG Electronics	Main body: Dawn gray Starter panel, control panel: Warm gray
Cold insulation	LG Electronics	Cold-insulate the external side of evaporator, chilled water box, and compressor motor Material: NBR 19 mm (Black)
External piping	Consumer	Mean the external pipe construction such as chilled water, cooling water and drain
Building and basis	Consumer	Prepare the basis construction for chiller installation before its installation
Interlock wiring work for chilled water, cooling water pump	Consumer	Wiring between control panel and pump control panel
Nitrogen gas filling up	Consumer	The gas filling up for local keep (If chiller won't be operated for a long time after start-up commissioning)

5. Supply Range

Item	Whether if supply or not	Note
Chiller body	LG Electronics	Refer to the body components
The chiller instruction manual	LG Electronics	Installation and operation manual
Starter panel	LG Electronics	Starter system of compressor motor
Vibration proof pad	LG Electronics	The pad for vibrational absorption
Packing	LG Electronics	Shrink film

6. The Warranty and Service

6.1. Standard warranty period is 12 months from date of commissioning or 18 Months from the date of shipmen(STD) from factory whichever comes first. It's valid only if start up & commissioning work is carried out by certified LG Electronics service. Also, warranty shall not apply, if the Products have been subjected to misuse, abuse, negligence, improper installation, improper maintenance, improper transportation, accident, alteration or design change by anyone other than LGE.

6.2. Failure, caused by a defect in the parts, material, or operation during the warranty period, will be inspected by LG ELECTRONICS and fixed free of charge if it is agreed that it is defective.

6.3. For the following, LG ELECTRONICS don't fix free of charge.

1) If a failure occurs after the product is repaired at the shop that is not designated by LG ELECTRONICS.
2) If the failure is caused by user's mistakes in using and handling the equipment.
3) The monopoly or handover to other places during the warranty period
4) If a failure is caused by a fire or a natural disaster.

7. General Details

7.1. Before producing the chillers, getting the approval is required by submitting all the details about production to the customer and the production should be implemented after getting a permit in the negotiation with the customer, as for the details not included marked in these specifications

7.2. Before the disposal of the product, if you monopoly or hand it over to others, you should inform LG electronics.

8. Caution Details

8.1. In case of drain work is progressed after completing the hydraulic pressure test or the circulation test of chilled/cooling water before the start-up and commissioning of the chiller, the chiller should be kept with opening each drain valve of pipe because the freeze and burst can occur by remaining water under the environmental condition of below 0°C outdoor temperature.(Until filling up the make-up water)

Guide Specification

Water Cooled Screw Chiller
MCWW C Series

Contents

1. Range of Application

This specification applies to all the models of Water-cooled SCREW MCWW conducting and selling at LG Electronics.

2. Equipment Features

1) The evaporator is Shell & Tube, flooded type and is installed distributor that has the perforated sheet type to supply the refrigerant distribution uniformly in the inlet of liquid refrigerant.
2) To keep oil concentration inside evaporator at the below standard, oil reclaim system shall be applied.
3) Limit control is implemented to prevent unit stop due to abnormal condition. A control algorithm should be applied to minimize manual reset and restart.
4) Digital transmitter for indicate and monitor of evaporator pressure/condenser pressure is applied. And oil differential pressure switch is applied.
   - Evaporator pressure transmitter
   - Condenser pressure transmitter
   - Chilled water inlet/outlet temperature sensor
   - Cooling water inlet/outlet temperature sensor
   - Compressor discharge temperature sensor
5) It is designed to be able to check and set the data with 7 inches touch screen controller.
6) An oil level switch should be applied to prevent damage to the compressor in case of insufficient oil.

3. Equipment Specifications

3.1. System Composition

1) The chiller uses the Semi-hermetic, rotary twin screw type compressor, to compressing the refrigerant for cooling, and chilled water outlet temperature is PID controlled by microprocessor controller.
2) Steel plate and pipe are performed the surface treatment to prevent corrosion.
3) Before shipping and start-up commissioning, the nitrogen gas shall be charged with a pressure of 0.3 ~ 0.5 kg/cm²G to check whether the product is leaked and prevent the air inflow.
4) Water-cooled screw chiller is all-in-one and produced for convenient installation, operation and maintenance management and compactly to minimize the area of installation and space.
5) The customer supplies each power wire for each compressor, depending on the compressor quantity.
6) The open wiring method is applied for wiring between the chiller main body and the control panel.

3.2. Performance and Quality

1) The refrigerant, R-134a, environmental refrigerant with Ozone Depleting Potential(ODP) of zero, shall be applied.

3.3. Equipment Specification

3.3.1. Equipment Composition

1) Screw compressor
2) Evaporator
3) Condenser
4) Oil reclaim system
5) Ref. piping
6) Safety devices
7) Control panel
8) Starter panel: The stater panel is supplied by the manufacturer with the chiller. The starter panel is attached and installed to the chiller unit.

3.3.2. Screw Compressor

1) The twin rotor/semi-hermetic type compressor and refrigerant cooled motor shall be used.
2) A differential pressure type oil lubrication and embedded type filter shall be applied.
3) The compressor embedded type oil separator shall be used and the check valve to prevent the refrigerant from flowing backward on the discharge side shall be installed.
4) By using the slide valve for control the capacity, chiller is used 3~4 Step Type controllable for 25(35)% - 100%.
5) Attaches the Discharge/Suction Shut Off V/V.
6) Install the oil differential pressure switch(For Filter)
7) Install the oil level switch(For oil)
8) The power specifications of the motor for compressor is three-phase, 380 V, 50 Hz.
9) The starter type of compressor motor is Y-D.

3.3.3. Evaporator

1) The heat exchanger is manufactured in Shell & Tube type.
2) The high-efficiency heat-transfer tubes with seamless phosphorus deoxidized Copper shall be used, and the steel plate or steel pipe are used for shell.
3) The tubes shall be combined with mechanical expansion on the tube sheet so that it can be replaced.
4) The flow detection switch is installed to prevent the chilled water from freezing on the chilled water side.
5) Install oil reclaim tube from evaporator to compressor, to keep oil concentration inside evaporator at a below standard.
6) The heat-transfer tubes shall be machined to improve heat transfer performance inside and outside the tube and parts in contact with tube sheets and tube support plates shall not be machined. The tube support plates for heat-transfer tubes shall be designed for stable support of heat-transfer tubes in accordance with GB standards.
7) The design pressure of the evaporator water box is 10 kg/cm² (150 psig).
8) The nozzle inlet/outlet of the evaporator is installed on the left side.

3.3.4. Condenser

1) The heat exchanger is manufactured in Shell & Tube type.
2) The high-efficiency heat-transfer tubes with seamless phosphorus deoxidized copper tube shall be used, and the steel plate or steel pipe are used for Shell.
3) The tubes shall be combined with mechanical expansion on the tube sheet so that it can be replaced.
4) It is manufactured the all-in-one structure embedding the oil separator inside of shell.
5) The heat-transfer tubes shall be machined to improve heat transfer performance inside and outside the tube and parts in contact with tube sheets and tube support plates shall not be machined. The tube support plates for heat-transfer tubes shall be designed for stable support of heat-transfer tubes in accordance with GB standards.
6) The design pressure of the condenser water box is 10 kg/cm²(150 psig).
7) It should be a structure available to do air vent on top of the water box and drain at the bottom of the water box.
8) The nozzle inlet/outlet of the condenser is installed on the left side.
9) It is installed the flow switch to prevent the cooling water from freezing on the cooling water side.

3.3.5. Oil Reclaim System

1) To reclaim oil mixed with the refrigerant from the evaporator to compressor, it should be installed the ejector(Spray ejector) available of oil return without consuming the additional energy.

3.3.6. Refrigerant Pipe

1) The refrigerant pipes are installed for refrigerant flow between each composition to be smooth, using the carbon steel pipe for pressure pipe and seamless phosphorus deoxidized copper pipe of more than 99.9% purity.
2) Check valve should be installed in the compressor discharge so that discharged refrigerant flow cannot flow backward.
3) From the expansion valve to the evaporator, pipe should be applied insulation to prevent the moisture of the pipe surface from condensing and the occurring of flash gas of refrigerant liquid at the same time.
4) After production and run a leak test, vacuuming should be done completely not to have any moisture inside.

3.3.7. Automatic Control Panel

1) Control device
   a. The composition of control panel
      The protection grade of control panel is IP41.
      The control panel consists of microprocessor controller(Main controller and display), power supply system to supply the stable power, breaker to perform the other control or secure the safety, magnetic contactor, and control relay, and a primary feature of each module is as below.
   b. Main controller
      It is implemented the control feature optimized to the mechanical device by applying the high-performance microprocessor. the high resolution A/D convertor(Analogue/Digital) shall be applied to display on screen or control by measuring each kind of temperature sensor value in real time.
      Also, it makes the customer's building automation ease response because the RS-485 communication port to support the customer's remote surveillance control is embedded in a standard.
      It consists of the digital input part to check each kind of operation state of the switch and the digital output part to control the operation of chiller.
      Also, the input/output port has a photocoupler blocking each kind of noise. Since all data is transmitted and received with the main module through communication, it secures high reliability by preventing the malfunction caused by electromagnetic wave to happen when transmitting and receiving the data of general cable.
   c. Display
      The machine run/stop state important for operation, abnormal state, operation data can be checked on the display, and input setting needed to equipment operating.
      Also, it made the operator's operation convenience by choosing and displaying the operation state(Temperature, run/stop and save of the peripheral device) into Korean, Chinese and English on the display part.
2) The feature of control device
   a. The convenient operating data management.
      It makes much operation information checked on one screen simultaneously by applying the 7 inches color graphic liquid crystal display. In addition, It also makes analog data(ex: temperature data) used when recording drive operation reports and managing the maintenance by saving 300 cases for each channel in the time interval set by the customer. Also, it makes the trend of temperature change easily identified by displaying the chilled water outlet temperature on a graph in real-time.
   b. The safety control algorism
      It implement the preventive operation without an abnormal stop in advance by detecting the high/low-pressure sensor, discharge temperature sensor, current sensor, which are the safety device of digital output. It is possible to continuous operate without chiller stop because the algorism that removing the inconvenience of manual reset work to restart by minimizing the number of abnormality occurring is implemented.
   c. Self-diagnosis and save of abnormality history
      Micom makes monitor the chiller state during chiller stop or running, making a notice to operator using a message or buzzer making an auto-saving of failure data and occurring time which can be utilized in repairing conveniently. Especially, as there is help function on the on the abnormality history, it is possible to respond and make an action promptly because the content about cause of occurrence, inspection and how to react are displayed. In addition, it is also possible to check the operation/abnormality history on the control device because the history is saved up to 300 in order.
   d. Optimized AI type control algorism
      - Soft start
        It makes the input current gradually control to prevent machi-nery shock caused by sudden increase in load when starting.
      - Advanced digital PID control
        When starting or changing the operating mode from manual to automation, by perceiving the optimized PID control point automatically and reflecting it in the control equation, compared with the conventional analog control, the digital PID control that combined with soft start makes unnecessary machinery stop minimize and makes more stable and precised temperature control.
      * The digital transmitter for evaporator pressure/condenser pressure monitoring.
      * The Digital Transmitter for current display/monitoring.
      * Installation of PT 100 Sensor for chilled water/cooling water temperature.
      - Scheduled operating function(Reserved operation)
        It makes the convenience on chiller operation by applying the schedule operation function available to choose the run/stop and control temperature setting for each day, particular holiday, or 11 times a day.
   e. Strong customer support function
      - Communication function for building automation and remote monitoring control
        It is equipped with the Modbus communication function available to conveniently connected with the customer's monitoring system.
        The zero voltage input/output shall be provided to run/stop in the remote or to monitor the run state of the machine using the simple electric wiring.
      - Help function
        If the breakdown occurs, it promote the operator's convenience by recording failure details, and showing clarification of how to respond if the operator selects the type of failure from the menu.
      - Available for support of three languages
        It is supported that the function to select/use Korean, Chinese, and English in the operation menu.
   f. To operate at partial load condition, the step compressor capacity control method is applied.

3.3.8. Starter Panel

1) The complete compressor protective function from external electric shock shall be provided by embedding the dual protective device about reverse phase/phase loss/overcurrent.

2) Safety device for chilled water and cooling water
   a. Chilled water pump Interlock point of contact
   b. Cooling water pump interlock point of contact
   c. The chilled water/cooling water flow differential pressure switch.
   d. Chilled water temperature(Low) : the below 2.9°C of chilled water outlet temperature
   ※ The run/stop signal and interlock point of contact for the chilled/cooling water pump is the important safety device for protecting chilled water freezing and safety accidents, so chiller, chilled water pump and cooling water pump should be linked in operation by wiring connection.
   ※ Also, when several cooling water pipes are connected in parallel, automatic shut-off valve must be installed to prevent water from flowing into the cooling water pipe of the corresponding chiller, and then the automatic shut-off valve must be opened and closed by interlocking with the control device. The interlocking method of the automatic shutoff valve should open and close in synchronization with the cooling water pump run/stop signal provided by the LG Electronics control panel.
   e. For the details, it should be discussed with LG Electronics in advance.

3) The chiller protective device
   a. [The low-pressure sensor] for protection of the chiller in case of abnormal low pressure of evaporator.
   b. [The high-pressure sensor] for protection of the chiller in case of abnormal high pressure of condenser.
   c. [The oil differential pressure switch] for protection of the compressor in case of abnormal oil differential pressure.
   d. [The oil level switch] for protection of the compressor in case of abnormal oil level.
   e. [The chilled water flow differential pressure switch] for protection of the chiller in case of abnormal chilled water flow.
   f. [The cooling water flow differential pressure switch] for protection of the chiller in case of abnormal cool-ing water flow.
   g. [The temperature sensor of chilled water inlet/outlet] to protect the chiller in case of abnormal temperature of chilled water inlet/outlet.
   h. [The temperature sensor of cooling water inlet/outlet] to protect the chiller in case of abnormal temperature of cooling water inlet/outlet.
   i. [The temperature sensor of compressor discharge] to protect the overheat of the chiller in case of abnormal high discharge temperature.
   j. [The protective relay] to protect the overcurrent.
   k. [Safety valve] to protect the chiller In case of abnormal high pressure in the evaporator.
   l. [Safety valve] to protect the chiller In case of abnormal high pressure in the condenser.

4) Motor/compressor protective device
   a. Reverse phase/phase loss protective relay
   b. Temperature switch for monitoring of motor winding temperature
   c. Temperature sensor for monitoring of compressor discharge temperature

3.3.10. Isolator

1) The vibration proof pad for vibration isolator device is supplied.

4. Scope of Construction

Item	Supplied by	Note
Painting	LG Electronics	Main body: Dawn gray Starter panel, control panel: Warm gray
External piping	Consumer	Mean the external pipe construction such as chilled water, cooling water and drain
Building and basis	Consumer	Prepare the basis construction for chiller installation before its installation
Interlock wiring work for chilled water, cooling water pump	Consumer	Wiring between control panel and pump control panel
Nitrogen gas filling up	Consumer	The gas filling up for local keep (If chiller won't be operated for a long time after start-up commissioning)

5. Supply Range

Item	Whether if supply or not	Note
Chiller body	LG Electronics	Refer to the body components
Refrigerant (R-134a)	LG Electronics	Separate delivery
The chiller instruction manual	LG Electronics	Installation and operation manual
Starter panel	LG Electronics	Starter system of compressor motor
Vibration proof pad	LG Electronics	The pad for vibrational absorption
Packing	LG Electronics	Shrink film

6. The Warranty and Service

6.1. Standard warranty period is 12 Months from date of commissioning or 18 Months from the date of shipment(STD) from factory whichever comes first. It's valid only if start up & commissioning work is carried out by certified LG Electronics service. Also, warranty shall not apply, if the Products have been subjected to misuse, abuse, negligence, improper installation, improper maintenance, improper transportation, accident, alteration or design change by anyone other than LGE.

6.2. Failure, caused by a defect in the parts, material, or operation during the warranty period, will be inspected by LG ELECTRONICS and fixed free of charge if it is agreed that it is defective.

6.3. For the following, LG ELECTRONICS don't fix free of charge.
1) If a failure occurs after the product is repaired at the shop that is not designated by LG ELECTRONICS.
2) If the failure is caused by user's mistakes in using and handling the equipment.
3) The monopoly or handover to other places during the warranty period
4) If a failure is caused by a fire or a natural disaster.

7. General Details

7.1. Before producing the chillers, getting the approval is required by submitting all the details about production to the customer and the production should be implemented after getting a permit in the negotiation with the customer, as for the details not included marked in these specifications.

7.2. Before the disposal of the product, if you monopoly or hand it over to others, you should inform LG electronics.

8. Caution Details

8.1. In case of drain work is progressed after completing the hydraulic pressure test or the circulation test of chilled/cooling water before the start-up and commissioning of the chiller, the chiller should be kept with opening each drain valve of pipe because the freeze and burst can occur by remaining water under the environmental condition of below 0°C outdoor temperature.(Until filling up the make-up water)