Midea

COMMERCIAL AIR CONDITIONERS

Tropical air cooled chillers 50&60Hz

ISO 9001 : 2000
Certificate No.: CC 454

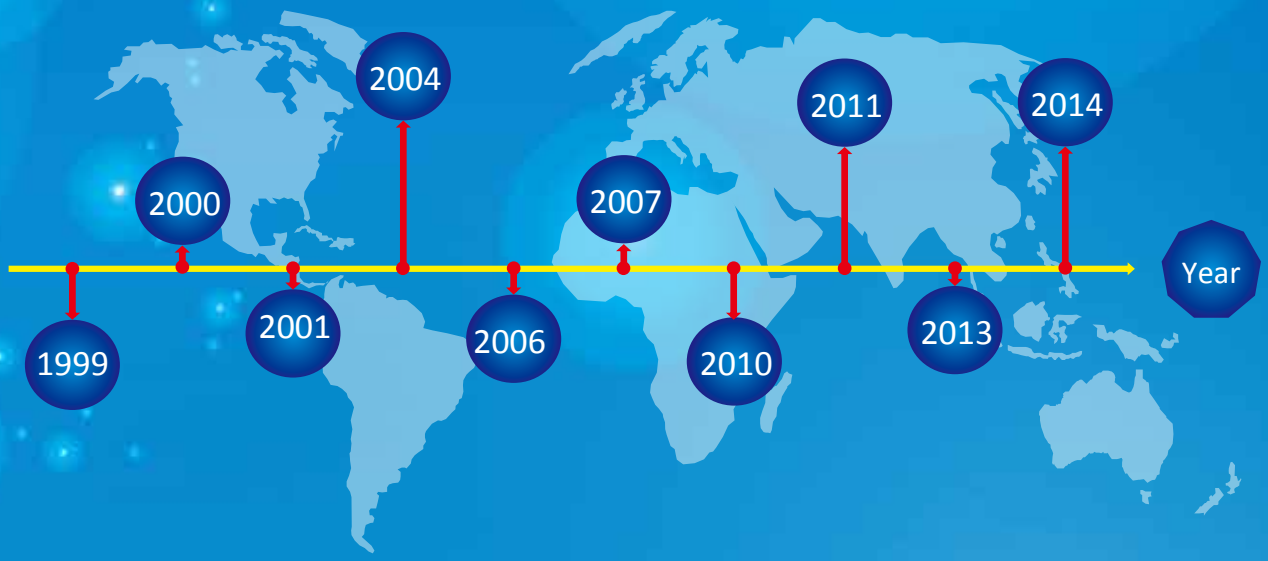
ISO 14001: 2004
Certificate No.:CC1417

Midea CAC (MCAC)

As a key subsidiary of Midea Group, the Midea Central Air Conditioner (MCAC) business unit has emerged as a leading supplier of commercial solutions. Since 1999 MCAC has contributed to the R&D and innovation of technologically-based commercial solutions. Cooperation with leading global enterprises coupled with independent R&D has enabled MCAC to implement thousands of commercial air-conditioning projects worldwide.

At present, MCAC is one of the globally leading product suppliers, underpinned by a mature marketing, sales, and project design framework.

There are three production bases in Shunde, Chongqing and Hefei.
MCAC Shunde: 38 product lines focusing on VRF (DC inverters and digital scroll products), split products, heat pump water heaters, and AHU/FCU.
MCAC Chongqing: 14 product lines focusing on water cooled centrifugal/screw/scroll chillers, air cooled screw/scroll chillers, and AHU/FCU.
MCAC Hefei: 11 product lines focusing on VRF, chillers, and heat pump water heaters.



2014 Launched the All DC Inverter V5X globally
2013 Launched the super high efficiency centrifugal chiller with full falling film technology
2011 Launched the DC Inverter V4 Plus globally
2010 Built the 3rd manufacturing base in Hefei
2007 Won the first Midea centrifugal chiller project oversea
2006 Launched the first VSD centrifugal chiller
2004 Acquired MGRE entered the chiller industry
2001 Partnered with Copeland to develop the digital scroll VRF system
2000 Developed the first inverter VRF With Toshiba
1999 Entered the CAC field

Midea air cooled chillers

Midea tropical air-cooled chiller adopts air as the cooling/heating source and water as the cooling/heating medium to cooling/heating the indoor ambient temperatures through the indoor terminals (AHU/FCU). It includes air cooled scroll chiller and air cooled screw chiller. The capacity range is from 25kW to 1200kW for one unit. The max capacity output is up to 2000kW for combined air cooled scroll chiller,9600kW for combined air screw chiller. The chillers can be used in all types of climate,the wide selection of module makes it possible to build a system for any of the customers requirements.

Aqua Tempo Power Series

Air cooled scroll chiller 30~250kW

Refrigerate:R410A

Compressor type: Digital scroll+fixed scroll

Max combined quantity: 16

Max combined capacity output:2000kW

Evaporator type: Double pipe&shell and tube

Aqua M Series

Air cooled screw chiller 380~1200kW

Refrigerate:R134a

Compressor type: Screw

Max combined quantity: 8

Max combined capacity output:9600kW

Evaporator type: Shell and tube

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Aqua Tempo Power Series

Air cooled scroll chiller

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Product introduction

Midea air-cooled scroll chiller adopts air as the cooling/heating source and water as the cooling/heating medium to cooling/heating the indoor ambient temperatures through the indoor terminal (AHU/FCU). Air cooled chiller typically have a lower initial investment and maintenance cost than water cooled system, it does not require a cooling tower, condenser water pump and associated condenser water chemical treatment system.

Modular design concept makes the application from single unit to multiple form systems to several thousand tons of installed capacity. Adopting high reliable and excellent efficiency system,Midea air cooled scroll chiller becomes one of the best choice for all kinds of air cooled projects. With the latest modular design technology, high efficiency V shape heat exchanger and precise gas flow control technology and digital compressor application, Midea air cooled scroll chiller system always work at the most high efficiency stage. Modular and compressor operation are adjusted by the real load requirement intelligently to keep the most economical working status. They are widely applied in school, hospital, shopping mall, office as well as the factory and manufacturing processing area.

School

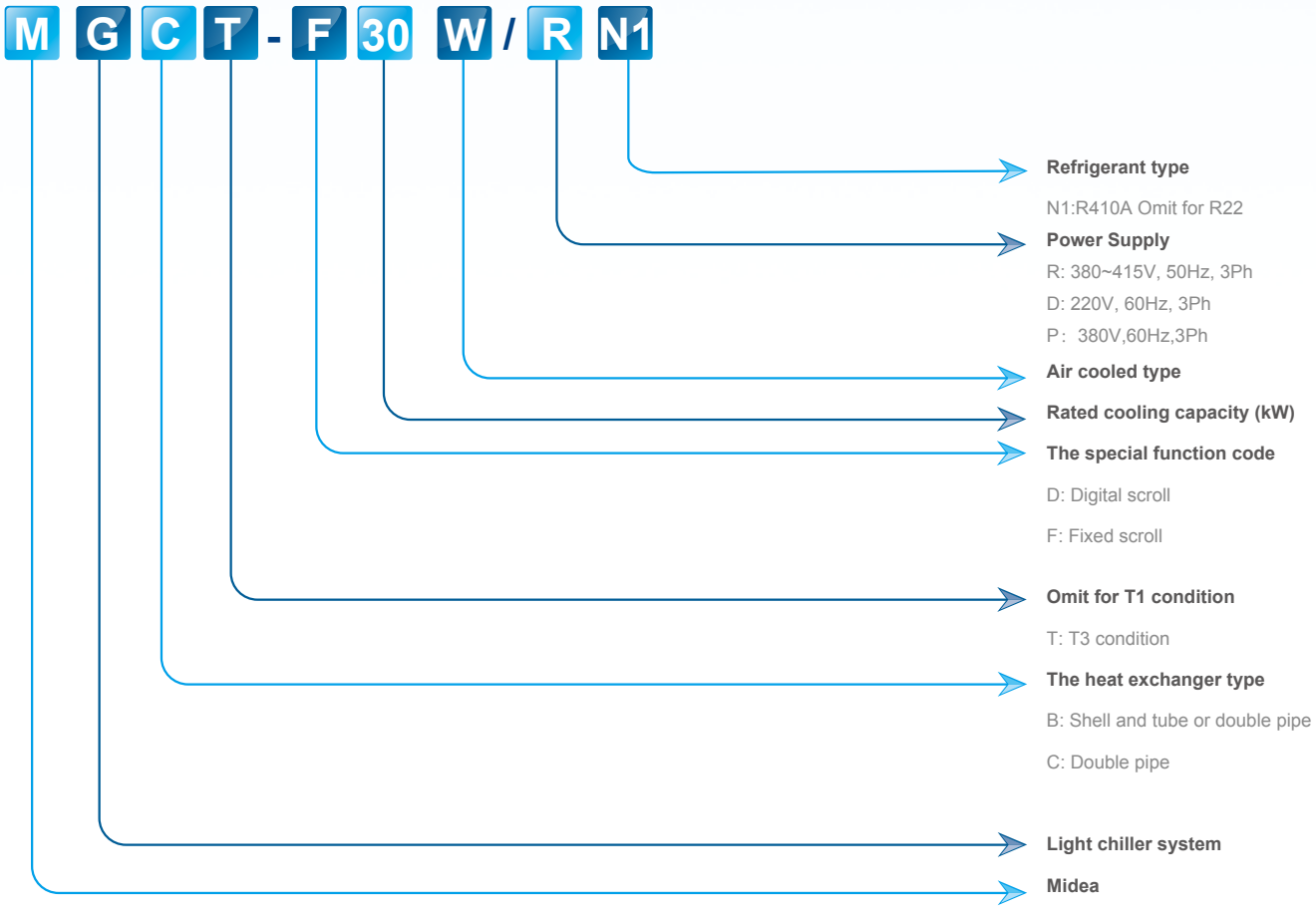
Factory

Hotel

Hospital

Office

Nomenclature



Product lineup

Model	Heat exchanger type	Compressor quantity(pcs)		Electrical controller quantity	Maximum combinations	Maximum output(kW)	Wired controller
		Digital	Fixed				
MGBT-F30W/RN1	Double pipe	0	2	1	16	480	KJRM-120D/BMK-E
MGBT-D30W/RN1	Double pipe	1	1	1	16	480	KJRM-120D/BMK-E
MGBT-F60W/RN1	Shell and tube	0	2	1	16	960	KJRM-120D/BMK-E
MGBT-D60W/RN1	Shell and tube	1	2	1	16	960	KJRM-120D/BMK-E
MGBT-F120W/RN1	Shell and tube	0	4	2	8	960	KJRM-120D/BMK-E
MGBT-F180W/RN1	Shell and tube	0	6	3	5	900	KJRM-120D/BMK-E
MGBT-F250W/RN1	Shell and tube	0	8	2	8	2000	KJRM-120D/BMK-E
MGCT-F30W/PN1	Double pipe	0	2	1	16	480	KJRM-120D/BMK-E
MGCT-D30W/PN1	Double pipe	1	1	1	16	480	KJRM-120D/BMK-E
MGBT-F60W/PN1	Shell and tube	0	2	1	16	960	KJRM-120D/BMK-E
MGBT-F120W/PN1	Shell and tube	0	4	2	8	960	KJRM-120D/BMK-E
MGBT-F180W/PN1	Shell and tube	0	6	3	5	900	KJRM-120D/BMK-E
MGBT-F30W/DN1	Double pipe	0	2	1	16	480	KJRM-120D/BMK-E
MGBT-F60W/DN1	Shell and tube	0	2	1	16	960	KJRM-120D/BMK-E
MGBT-F120W/DN1	Shell and tube	0	4	2	8	960	KJRM-120D/BMK-E
MGBT-F180W/DN1	Shell and tube	0	6	3	5	900	KJRM-120D/BMK-E

External appearance

30kW module

60kW module

120kW module

180kW module

250kW module

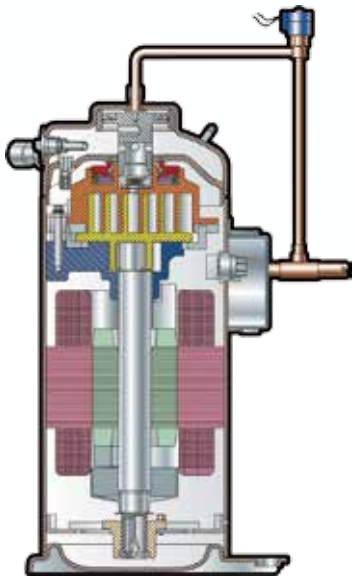
Features

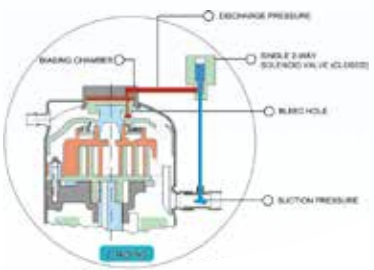
Modular design

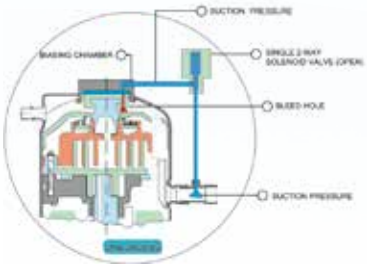
Modular design and mass production makes the stock possible to short the delivery time to the project.
Free capacity add-on in the future stage.
Whole system reliability by the backup modular.
Master controller oversees operation of all connected modules.
Low starting current without any inrush to the power supply.

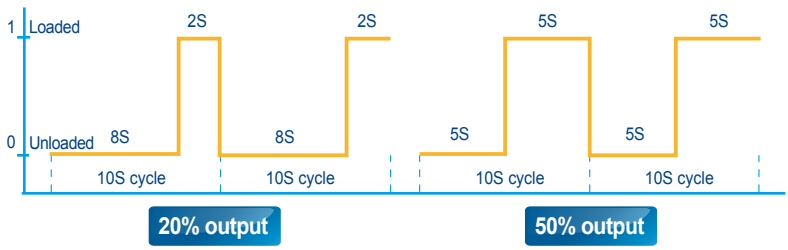
Digital scroll technology

Digital scroll technology, provide maximum reliability, high efficiency and quiet operation.The widest capacity output can be achieved, comfort room temperature, efficiency of the whole system can be improved significantly.
Advanced digital scroll technology for small modules (30/60kW) maximizes reliability, ensures efficient and silent operations, optimizes capacity output, and provides a comfortable room temperature.



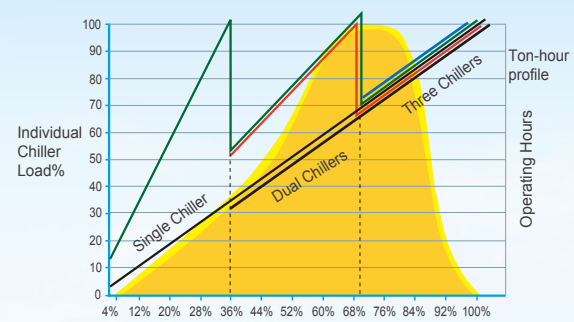




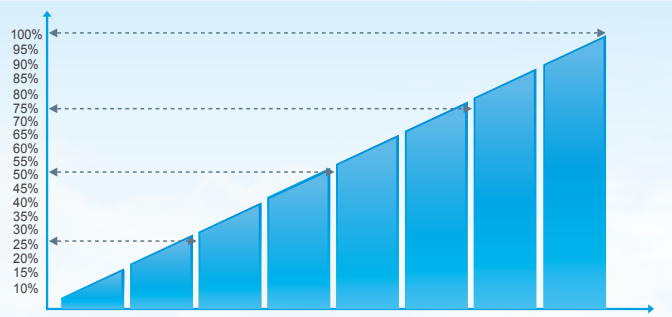


Energy saving

In system the output capacity is proportional to the load of the building. In the partial load condition the single chiller system will operate at 10% to 70% which is a very low efficiency for a system and lead to a very low IPLV/NPLV. In a multiple system the system output capacity is not proportion to the load of the building and only one chiller will operate in the low efficiency area and other chiller will work in the high efficiency area. The IPLV/NPLV will be increased significantly by the modular design.



Example of three chillers operation profile

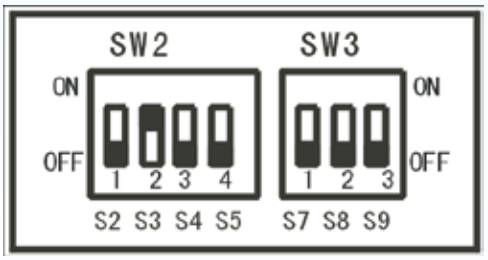


Stepless capacity control

Wide output water temperature

Cooling: 5~17˚C (Set in factory), 0~17˚C can be available by switch the S5 on PCB, the antifreeze must be put into pipeline.
Heating: 40~50˚C (Set in factory), 22~50˚C can be available by switch the address.
(To be available modules, please see the "specifications" on page 12~16.)

Mode		Outlet water temp.
Cooling	*Low outlet water temp.（S5 address ON）	0~17˚C
	Normally (S5 address OFF)	5~17˚C
Heating	Low outlet water temp.(S4 address ON)	22~50˚C
	Normally(S4 address OFF)	40~50˚C

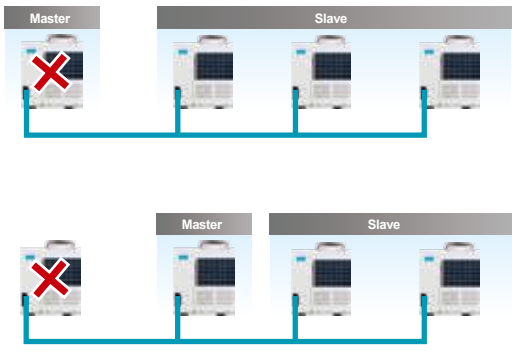


User friendly remote control

Switch the S7 address on the PCB to ON to enable the following remote control operations:
■Remote ON/OFF.
■Remote mode selection for heating and cooling.
■Remote alarm.

Note:
When use the remote control function, the wired controller will be invalid.

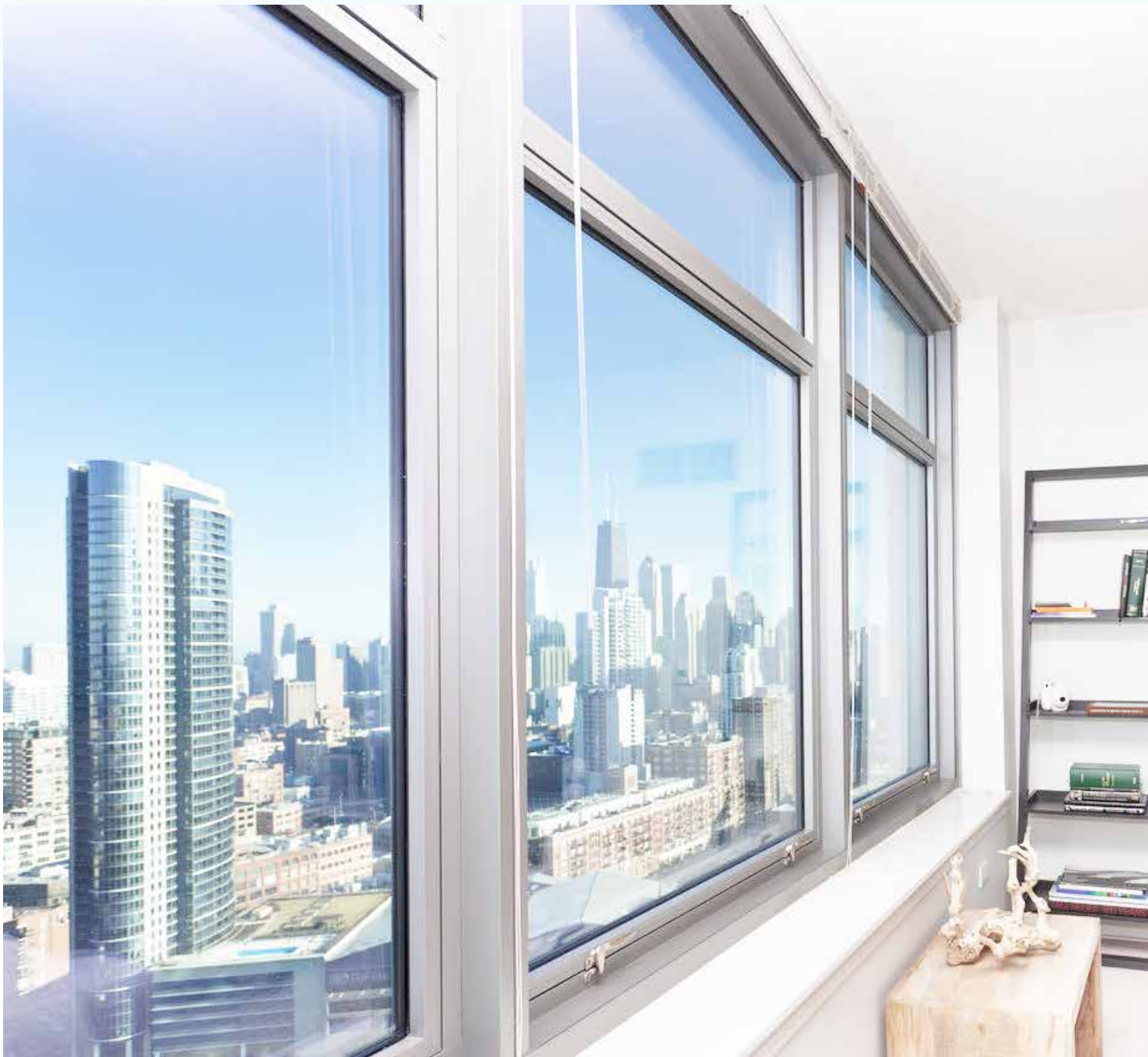
Backup functions



When unit is failed.
■ If master unit fails, all the units will stop.
■ If one slave unit fails, this unit will stop but the others will keep running.
■ When the master unit fails, any of the slave one can be set as the master unit by manual setting.
When unit is under protection.
■ If master unit's protection happens, this unit will stop but the others will keep running.
■ If slave unit's protection happens, this unit will stop but the others will keep running.
■ (Except PE, P9 protection happens)
PE: Low-temperature protection of evaporator.
P9: Outlet and inlet water temperature difference protection.

Optimized electrical design

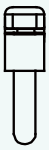
The standardized hardware and program design efficiently manages raw materials via programming parameters written onto a EEPROM chip, which enables after-sales modifications, customization and troubleshooting.
The electrical panels provide a clear visual representation of the wiring scheme completed during assembly.



Standard features/options

Description	Standard features	Options
Hermetic scroll compressor	●	
Compressor crankcase heaters	●	
Compressor circuit breakers	●	
Compressor overload protection	●	
Condenser fan-direct drive, axial type	●	
Condenser fan(Plastic)	●	
Condenser fan guard	●	
Condenser motor circuit breakers		●
Aluminum fins condenser coils	●	
Low pressure switch	●	
High pressure switch	●	
Wired controller KJRM-120D/BMK-E	●	
Wired controller KJR-120A/MBTE		●
BMS gateway(Lonworks)		●
Remote control input	●	
Alarm signal output	●	
Anti-freezing protection	●	
Over-load protection	●	
Power phases sequence protection	●	
Anti-corrosion fins		●
Water flow switch		●
Three phase power protector		●

Accessories

Item	Name of accessory	Type	Qty	Shape	Usage
1	Installation and owner's manual	---	1		Installation and using instruction.
2	The total outlet water temperature test kit	LSQWRF65M/A-C.ZL.10	1		Inspection the temperature of total outlet water.
3	Wired controller	KJRM-120D/BMK-E	1		Control the system.

Specifications

Model			MGBT-F30W/RN1	MGBT-D30W/RN1	MGBT-F60W/RN1	MGBT-D60W/RN1
Cooling Capacity (*1)		kW	30	30	60	60
		US Ton	8.5	8.5	17.0	17.0
Cooling Capacity (*2)		kW	25.8	25.8	51.6	51.6
		US Ton	7.3	7.3	14.7	14.7
Heating Capacity		kW	32	32	64	65
Power input	Cooling (*1)	kW	10.0	10.0	19.3	19.4
	Cooling rated current (*1)	A	16.3	16.3	33.6	33.6
	Cooling (*2)	kW	12	12	23.16	23.28
	Cooling rated current (*2)	A	19.56	19.56	40.32	40.32
	Heating	kW	9.8	9.8	19.8	20.4
	Heating rated current	A	16.0	16.0	34.3	35.1
Power supply		V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
EER (*1)		kW/kW	3.00	3.00	3.11	3.09
EER (*2)		kW/kW	2.15	2.15	2.20	2.22
COP		kW/kW	3.27	3.27	3.23	3.19
Compressor	Type		Fixed scroll	Digital scroll+fixed scroll	Fixed scroll	Digital scroll+fixed scroll
	Brand		Copeland	Copeland	Copeland	Copeland
	Model		ZP61KCE-TFD-522	ZPD61KCE-TFD-532/ ZP61KCE-TFD-522	ZP137KCE-TFD-522	ZP137KCE-TFD-522 / ZPD72KCE-TFD-433 / ZP67KCE-TFD-420
	Quantity	Pieces	2	1+1	2	3
	Input	kW	4.81/5.5	5.5	10.2	10.2/5.75/5.2
	Refrigerant oil	ml	1685	1685/1685	3200	3200/1893/1685
Refrigerant	Type		R410A	R410A	R410A	R410A
	Refrigerant control		EXV	EXV	EXV+capillary	EXV+capillary
	Weight	kg	3.1×2	3.1×2	6.0×2	6.5×2
Condenser (Air side)	Type		Fin-coil	Fin-coil	Fin-coil	Fin-coil
	Quantity of fan motor	Pieces	1	1	2	2
	Air flow	m^3/h	12000	12000	24000	24000
	Fan motor model		YDK400-8-YA	YDK400-8-YA	YS700-6F	YDK550-6E
	Fan motor rated current	A	2.95	2.95	1.8×2	4.0×2
	Fan motor input	kW	0.65	0.65	0.9×2	0.865×2
Evaporator (Water side)	Type		Double pipe	Double pipe	Shell and tube	Shell and tube
	Water pressure drop	kPa	60	60	15	15
	Water inlet/outlet pipeline inside diameter	mm	DN40	DN40	DN100	DN100
	Water flow	m^3/h	5.2	5.2	10.3	10.3
	Max. design pressure	MPa	1	1	1	1
	Water pipe connection type		Flexible joint	Flexible joint	Flexible joint	Flexible joint
Dimension	Net(D×H×W)	mm	1514×1865×841	1514×1865×841	2000×1880×900	2000×1880×900
	Packing(D×H×W)	mm	1590×2065×995	1590×2065×995	2090×2055×985	2090×2055×985
Weight	Net weight	kg	380	380	580	600
	Operation weight	kg	420	420	650	670
Connection wiring	Power wire	mm^2×No.	10×4+6×1	10×4+6×1	25×4+16×1	16×4+10×1
	Signal wire	mm^2×No.	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding
Control type			Wired controller	Wired controller	Wired controller	Wired controller
Safety protection device			1) Protection for over-high discharge pressure. 2) Protection for over-low suction pressure. 3) Power supply phase sequence protection. 4) Anti-freezing protection in cooling mode. 5) Anti-freezing protection in Winter. 6) Protection for compressor over current. 7) Protection for compressor overload. 8) Outlet and inlet water temperature difference protection. 9) Compressor discharge temperature protection. 10) Water flow cut-off protection. 11) Sensor malfunction protection. 12) Low-temperature protection of shell and tube heat exchanger.			
Noise level		dB(A)	65			67
Operation water temp		°C	Cooling: 5～17 Heating: 45～50			Cooling: 0～17(Less than 5°C must add antifreeze) Heating: 22～50
Ambient temp		°C	Cooling: 10～52 Heating: -10～21			

Note: Specifications are based on the following conditions:

- Cooling : (*1) chilled water inlet/outlet: 12°C/ 7°C, and outdoor ambient temp. of 35°C DB.
  (*2) chilled water inlet/outlet: 12°C / 7°C, and outdoor ambient temp. of 46°C DB.
- Heating : warm water inlet/outlet: 40°C/ 45°C, and outdoor ambient temp. 7°C DB/6°C WB.
- Water side fouling factor: 0.086m2·°C/kW.
- 1m away in open field(sound pressure).

Model			MGBT-F120W/RN1	MGBT-F180W/RN1	MGBT-F250W/RN1
Cooling Capacity (*1)		kW	120	180	250
		US Ton	34.1	51.1	71.0
Cooling Capacity (*2)		kW	103.2	155.8	216
		US Ton	29.3	44.2	61.3
Heating Capacity		kW	128	195	270
Power input	Cooling (*1)	kW	38.5	57.9	78.3
	Cooling rated current (*1)	A	68.8	100.8	141.9
	Cooling (*2)	kW	46.2	58.5	86.3
	Cooling rated current (*2)	A	82.56	121	170.3
	Heating	kW	41.5	59.4	80
	Heating rated current	A	71.8	102.9	146
Power supply		V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50
EER (*1)		kW/kW	3.12	3.11	3.19
EER (*2)		kW/kW	2.23	2.66	2.50
COP		kW/kW	3.08	3.28	3.38
Compressor	Type		Fixed scroll	Fixed scroll	Fixed scroll
	Brand		Copeland	Copeland	Copeland
	Model		ZP137KCE-TFD-522	ZP137KCE-TFD-522	SH120A4ALC
	Quantity	Pieces	4	6	8
	Input	kW	10.2	10.2	10.28
	Refrigerant oil	ml	3200	3200	3300
Refrigerant	Type		R410A	R410A	R410A
	Refrigerant control		EXV+capillary	EXV+capillary	EXV+ capillary
	Weight	kg	6.0×4	6.0×6	15×4
Condenser (Air side)	Type		Fin-coil	Fin-coil	Fin-coil
	Quantity of fan motor	Pieces	4	6	8
	Air flow	m^3/h	48000	72000	96000
	Fan motor model		YS700-6F	YS700-6F	YS700-6F-1/YS700-6F-2
	Fan motor rated current	A	1.8×4	1.8×6	1.8×8
	Fan motor input	kW	0.9×4	0.9×6	0.9×8
Evaporator (Water side)	Type		Shell and tube	Shell and tube	Shell and tube
	Water pressure drop	kPa	25	30	40
	Water inlet/outlet pipeline inside diameter	mm	DN65	DN80	DN100
	Water flow	m^3/h	20.6	31	43
	Max. design pressure	MPa	1	1	1
	Water pipe connection type		Flexible joint	Flexible joint	Flexible joint
Dimension	Net(D×H×W)	mm	2000×2090×1685	2850×2110×2000	3800×2130×2000
	Packing(D×H×W)	mm	2090×2240×1755	2980×2260×2135	3900×2200×2100
Weight	Net weight	kg	1150	1730	2450
	Operation weight	kg	1270	2000	2600
Connection wiring	Power wire	mm^2×No.	35×3+16×2	70×3+35×2	185×4+70×1
	Signal wire	mm^2×No.	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding
Control type			Wired controller	Wired controller	Wired controller
Safety protection device			1) Protection for over-high discharge pressure. 2) Protection for over-low suction pressure. 3) Power supply phase sequence protection. 4) Anti-freezing protection in cooling mode. 5) Anti-freezing protection in Winter. 6) Protection for compressor over current. 7) Protection for compressor overload. 8) Outlet and inlet water temperature difference protection. 9) Compressor discharge temperature protection. 10) Water flow cut-off protection. 11) Sensor malfunction protection. 12) Low-temperature protection of shell and tube heat exchanger.		
Noise level		dB(A)	70	74	74
Operation water temp		°C	Cooling: 5～17 Heating: 45～50	Cooling: 5～17 Heating: 45～50	Cooling: 0～17(Less than 5°C must add antifreeze) Heating: 22～50
Ambient temp		°C	Cooling: 10～52 Heating: -10～21		

Note: Specifications are based on the following conditions:

- Cooling : (*1) chilled water inlet/outlet: 12°C/ 7°C, and outdoor ambient temp. of 35°C DB.
  (*2) chilled water inlet/outlet: 12°C / 7°C, and outdoor ambient temp. of 46°C DB.
- Heating : warm water inlet/outlet: 40°C/ 45°C, and outdoor ambient temp. 7°C DB/6°C WB.
- Water side fouling factor: 0.086m2·°C/kW.
- 1m away in open field(sound pressure).

Model			MGBT-F30W/DN1	MGBT-F60W/DN1	MGBT-F120W/DN1	MGBT-F180W/DN1
Cooling Capacity (*1)		kW	30	60	120	180
		US Ton	8.5	17.0	34.1	51.1
Cooling Capacity (*2)		kW	25.8	51.6	103.2	154.8
		US Ton	7.3	14.7	29.3	44.0
Heating Capacity		kW	32	65	130	195
Power input	Cooling (*1)	kW	10.0	19.5	39	58.5
	Cooling rated current (*1)	A	28.3	63	126	189
	Cooling (*2)	kW	12	23.4	46.8	70.2
	Cooling rated current (*2)	A	33.96	75.6	151.2	226.8
	Heating	kW	9.8	20	40	60
	Heating rated current	A	27.7	65.5	130	196.5
Power supply		V/Ph/Hz	220/3/60	220/3/60	220/3/60	220/3/60
EER (*1)		kW/kW	3.00	3.08	3.08	3.08
EER (*2)		kW/kW	2.15	2.21	2.21	2.21
COP		kW/kW	3.27	3.25	3.25	3.25
Compressor	Type		Fixed scroll	Fixed scroll	Fixed scroll	Fixed scroll
	Brand		Sanyo	Danfoss	Danfoss	Danfoss
	Model		C-SBP160H36A	SH105A3ALC	SH105A3ALC	SH105A3ALC
	Quantity	Pieces	2	2	4	6
	Input	kW	5.5	9.96	9.96	9.96
	Refrigerant oil	ml	1700	3300	3300	3300
Refrigerant	Type		R410A	R410A	R410A	R410A
	Refrigerant control		EXV	EXV+capillary	EXV+capillary	EXV+capillary
	Weight	kg	3.0×2	6.5×2	6.5×4	6.2×6
Condenser (Air side)	Type		Fin-coil	Fin-coil	Fin-coil	Fin-coil
	Quantity of fan motor	Pieces	1	2	4	6
	Air flow volume	m^3/h	12000	24000	48000	72000
	Fan motor model		YDK600-6	YS650-8B	YS650-8B	YS650-8B
	Fan motor rated current	A	4	3.7×2	3.7×4	3.7×6
	Fan motor input	kW	0.88	1.1×2	1.1×4	1.1×6
Evaporator (Water side)	Type		Double pipe	Shell and tube	Shell and tube	Shell and tube
	Water pressure drop	kPa	60	12	25	30
	Water inlet/outlet pipeline inside diameter	mm	DN40	DN100	DN65	DN80
	Water flow	m^3/h	5.2	10.3	20.6	31
	Max. design pressure	MPa	1	1	1	1
	Water pipe connection type		Flexible joint	Flexible joint	Flexible joint	Flexible joint
Dimension	Net(D×H×W)	mm	1514×1865×841	2000×1880×900	2000×2090×1685	2850×2110×2000
	Packing(D×H×W)	mm	1590×2065×995	2090×2055×985	2090×2240×1755	2980×2260×2135
Weight	Net weight	kg	380	580	1180	1730
	Operation weight	kg	420	650	1270	2000
Connection wiring	Power wire	mm^2×No.	25×4+16×1	35×4+10 ×1	70×3+25 ×2	150×3+70 ×2
	Signal wire	mm^2×No.	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding
Control type			Wired controller	Wired controller	Wired controller	Wired controller
Safety protection device			1) Protection for over-high discharge pressure. 2) Protection for over-low suction pressure. 3) Power supply phase sequence protection. 4) Anti-freezing protection in cooling mode. 5) Anti-freezing protection in Winter. 6) Protection for compressor over current. 7) Protection for compressor overload. 8) Outlet and inlet water temperature difference protection. 9) Compressor discharge temperature protection. 10) Water flow cut-off protection. 11) Sensor malfunction protection. 12) Low-temperature protection of shell and tube heat exchanger.			
Noise level		dB(A)	65	67	70	74
Operation water temp		°C	Cooling: 5～17 Heating: 45～50			
Ambient temp		°C	Cooling: 10～52 Heating: -10～21			

Note: Specifications are based on the following conditions:

- Cooling : (*1) chilled water inlet/outlet: 12°C/ 7°C, and outdoor ambient temp. of 35°C DB.
  (*2) chilled water inlet/outlet: 12°C / 7°C, and outdoor ambient temp. of 46°C DB.
- Heating : warm water inlet/outlet: 40°C/ 45°C, and outdoor ambient temp. 7°C DB/6°C WB.
- Water side fouling factor: 0.086m2·°C/kW.
- 1m away in open field(sound pressure).

Model			MGCT-F30W/PN1	MGCT-D30W/PN1	MGBT-F60W/PN1	MGBT-F120W/PN1	MGBT-F180W/PN1
Cooling Capacity (*1)		kW	30	30	60	120	180
		US Ton	8.5	8.5	17.0	34.1	51.1
Cooling Capacity (*2)		kW	25.8	25.8	51.6	103.2	154.8
		US Ton	7.3	7.3	14.7	29.3	44.0
Heating Capacity		kW	32	32	65	130	195
Power input	Cooling (*1)	kW	10.0	10.0	19.7	39.4	59.1
	Cooling rated current (*1)	A	16.3	16.3	63	126	189
	Cooling (*2)	kW	12	12	23.64	47.28	70.92
	Cooling rated current (*2)	A	19.56	19.56	75.6	151.2	226.8
	Heating	kW	9.8	9.8	19.9	39.8	59.7
	Heating rated current	A	16.0	16.0	65.5	130	196.5
Power supply		V/Ph/Hz	380/3/60	380/3/60	380/3/60	380/3/60	380/3/60
EER (*1)		kW/kW	3.00	3.00	3.05	3.05	3.05
EER (*2)		kW/kW	2.15	2.15	2.18	2.18	2.18
COP		kW/kW	3.27	3.27	3.27	3.27	3.27
Compressor	Type		Fixed scroll	Digital scroll+fixed scroll	Fixed scroll	Fixed scroll	Fixed scroll
	Brand		Copeland	Copeland	Danfoss	Danfoss	Danfoss
	Model		ZP57K3E-TF7-522	ZPD51K5E-TF7-532/ ZP57K3E-TF7-522	SH105A9ALC	SH105A9ALC	SH105A9ALC
	Quantity	Pieces	2	1+1	2	4	6
	Input	kW	5.48	4.71/5.48	9.1	9.1	9.1
	Refrigerant oil	ml	1685	1242/1685	3300	3300	3300
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Refrigerant control		EXV	EXV	EXV+capillary	EXV+capillary	EXV+capillary
	Weight	kg	3.1×2	3.1×2	6.5×2	6.5×4	6.5×6
Condenser (Air side)	Type		Fin-coil	Fin-coil	Fin-coil	Fin-coil	Fin-coil
	Quantity of fan motor	Pieces	1	1	2	4	6
	Air flow	m^3/h	12000	12000	24000	48000	72000
	Fan motor model		YDK550-8B	YDK550-8B	YS650-8C	YS650-8C	YS650-8C
	Fan motor rated current	A	4	4	2.1×2	2.1×4	2.1×6
	Fan motor input	kW	0.85	0.85	1.03×2	1.03×4	1.03×6
Evaporator (Water side)	Type		Double pipe	Double pipe	Shell and tube	Shell and tube	Shell and tube
	Water pressure drop	kPa	60	60	15	25	30
	Water inlet/outlet pipeline inside diameter	mm	DN40	DN40	DN100	DN65	DN80
	Water flow	m^3/h	5.2	5.2	10.3	20.6	31
	Max. design pressure	MPa	1	1	1	1	1
	Water pipe connection type		Flexible joint	Flexible joint	Flexible joint	Flexible joint	Flexible joint
Dimension	Net(D×H×W)	mm	1514×1865×841	1514×1865×841	2000×1880×900	2000×2090×1685	2850×2110×2000
	Packing(D×H×W)	mm	1590×2065×995	1590×2065×995	2090×2095×985	2090×2240×1755	2980×2260×2135
Weight	Net weight	kg	380	380	590	1180	1730
	Operation weight	kg	400	400	650	1270	2000
Connection wiring	Power wire	mm^2×No.	10×4+6 ×1	10×4+6 ×1	16×4+10 ×1	35×3+16 ×2	70×3+35 ×2
	Signal wire	mm^2×No.	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding	0.75×3-core with shielding
Control type			Wired controller	Wired controller	Wired controller	Wired controller	Wired controller
Safety protection device			1) Protection for over-high discharge pressure. 2) Protection for over-low suction pressure. 3) Power supply phase sequence protection. 4) Anti-freezing protection in cooling mode. 5) Anti-freezing protection in Winter. 6) Protection for compressor over current. 7) Protection for compressor overload. 8) Outlet and inlet water temperature difference protection. 9) Compressor discharge temperature protection. 10) Water flow cut-off protection. 11) Sensor malfunction protection. 12) Low-temperature protection of shell and tube heat exchanger.				
Noise level		dB(A)	67	67	67	70	74
Operation water temp		°C	Cooling: 0～17(Less than 5°C must add antifreeze) Heating: 22～50				
Ambient temp		°C	Cooling: 10～52 Heating: -10～21				

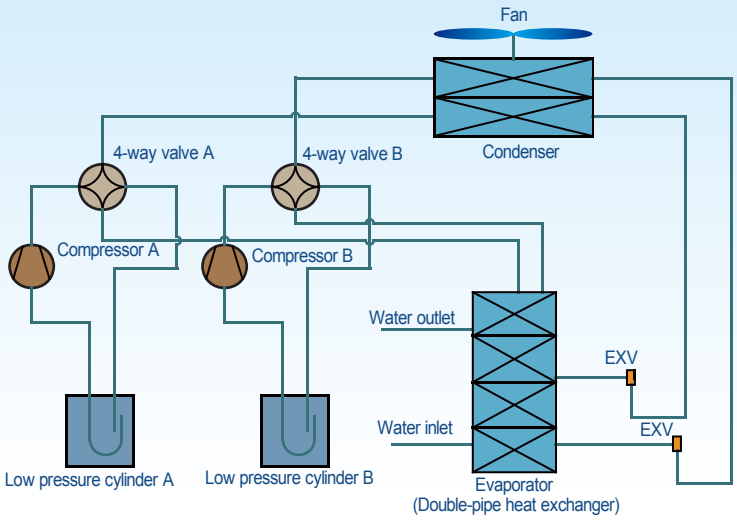
Note: Specifications are based on the following conditions:

- Cooling : (*1) chilled water inlet/outlet: 12°C/ 7°C, and outdoor ambient temp. of 35°C DB.
  (*2) chilled water inlet/outlet: 12°C / 7°C, and outdoor ambient temp. of 46°C DB.
- Heating : warm water inlet/outlet: 40°C/ 45°C, and outdoor ambient temp. 7°C DB/6°C WB.
- Water side fouling factor: 0.086m2·°C/kW.
- 1m away in open field(sound pressure).

System sketch drawing

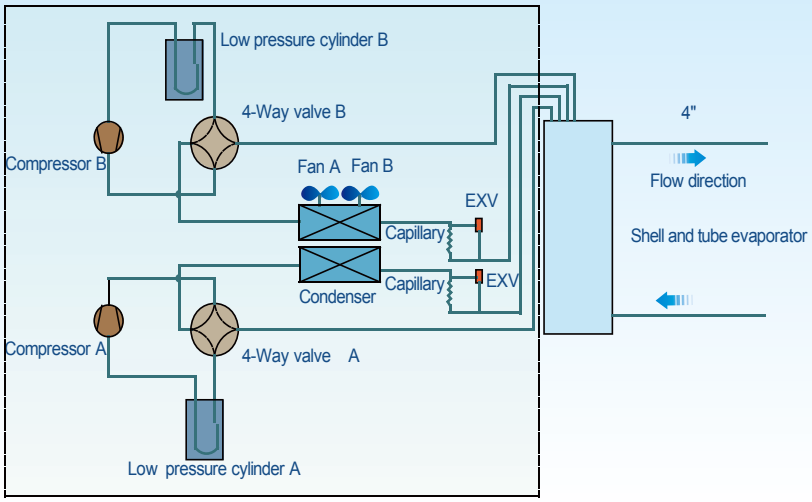
30kW module

Each module has two compressors with one separate unit, one double-pipe evaporator for two refrigerant systems.



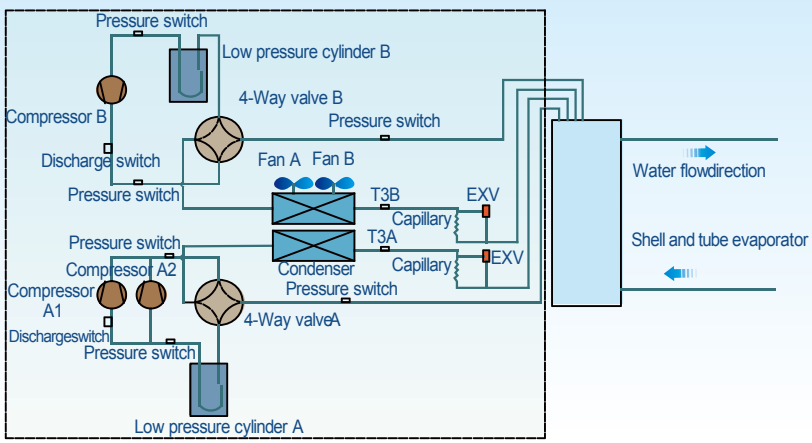
60kW module (Fixed speed)

Each module has two compressors with one separate unit, one shell and tube evaporator for two refrigerant systems.



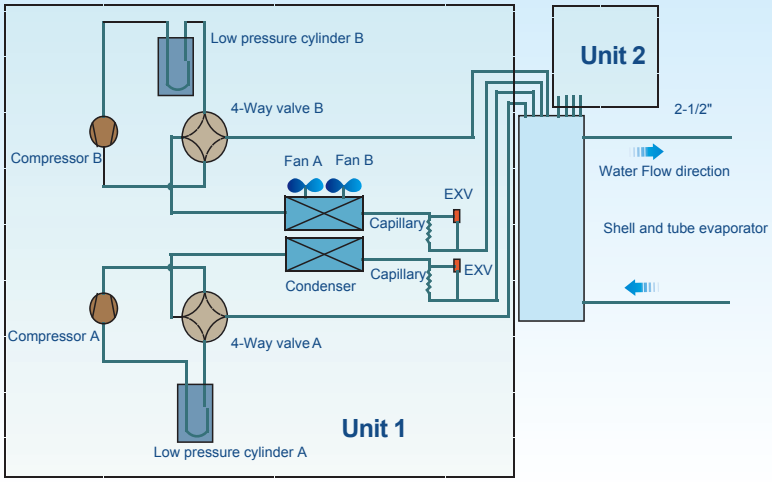
60kW digital module

Each module has three compressors with one separate unit,one shell and tube evaporator for two refrigerant systems.



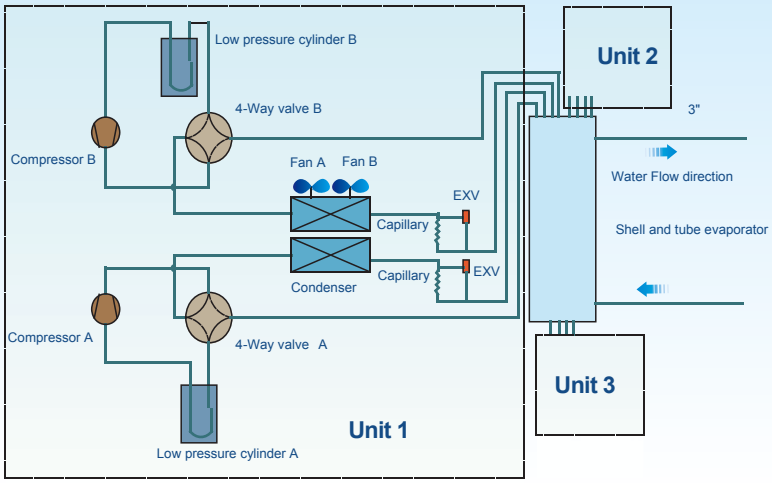
120kW module

Each module has four compressors with two separate units,one shell and tube evaporator for four refrigerant systems.



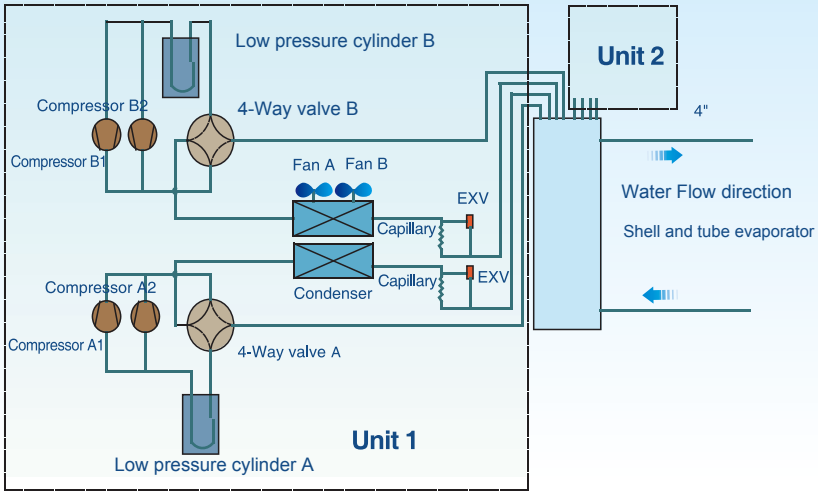
180kW module

Each module has six compressors with three separate units,one shell and tube evaporator for six refrigerant systems.



250kW module

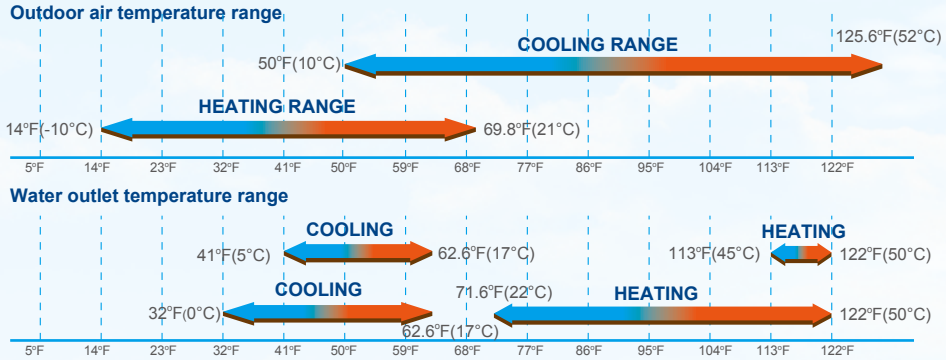
Each module has eight compressors with two separate units,one shell and tube evaporator for four refrigerant systems.



Application range →

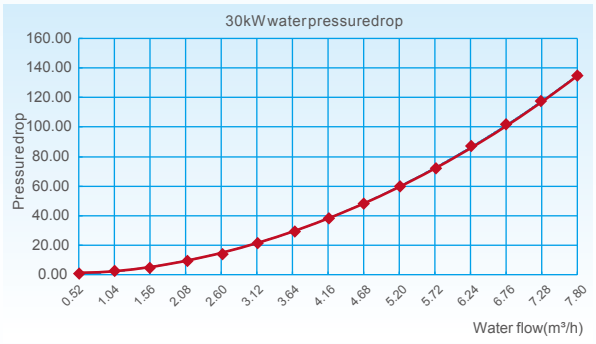
Application range

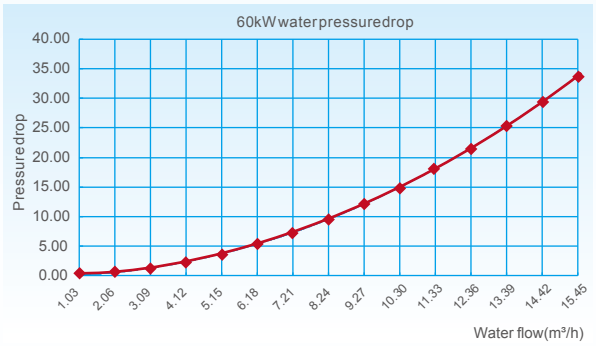
Operation temperature range

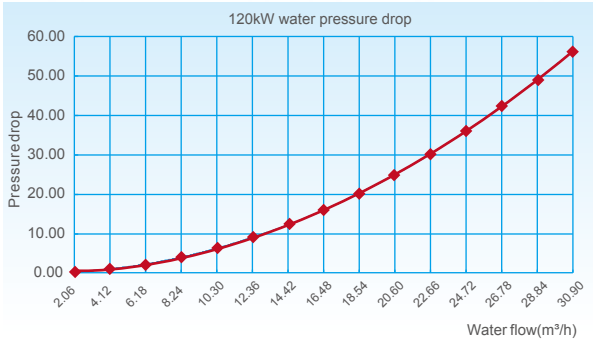


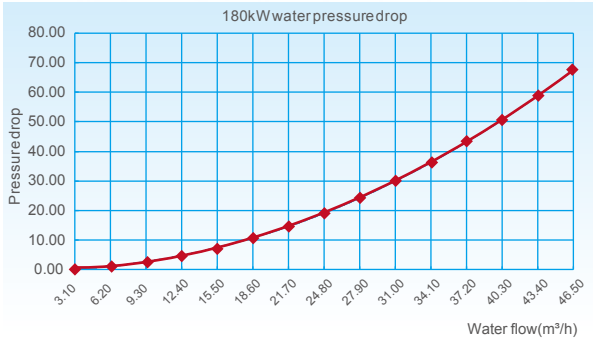
Model	Outdoor air temperature range	Water outlet temperature range
Cooling	50°F~125.6°F(10°C~52°C)	41°F~62.6°F (44.6°F is default)/5°C~17°C (7°C is default)
		32°F~62.6°F/0°C~17°C (The antifreeze must be added)
Heating	14°F~69.8°F(-10°C~21°C) 14°F~69.8°F(-10°C~21°C)	113°F ~ 122°F (113°F is default)/45°C ~ 50°C (45°C is default) 71.6°F~122°F (113°F is default)/22°C ~ 50°C (45°C is default)

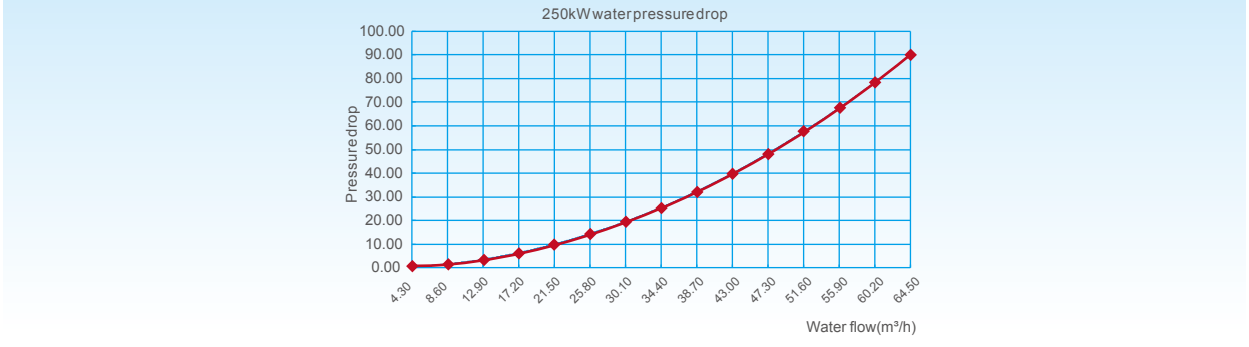
Water pressure drop











Glycol factors

A glycol solution is required when the unit with condition as mentioned. The use of glycol will reduce the performance of the unit depending on concentration.

Ethylene glycol

Quality of glycol （ %）	Modification coefficient				Freezing point ℃
	Cooling capacity modification	Power modification	Water resistance	Water flow modification	
0	1.000	1.000	1.000	1.000	0
10	0.984	0.998	1.118	1.019	-4.000
20	0.973	0.995	1.268	1.051	-9.000
30	0.965	0.992	1.482	1.092	-16.000
40	0.960	0.989	1.791	1.145	-23.000
50	0.950	0.983	2.100	1.200	-37.000

Propylene glycol

Quality of glycol （ %）	Modification coefficient				Freezing point ℃
	Cooling capacity modification	Power modification	Water resistance	Water flow modification	
0	1.000	1.000	1.000	1.000	0
10	0.976	0.996	1.071	1.000	-3.000
20	0.961	0.992	1.189	1.016	-7.000
30	0.948	0.988	1.380	1.034	-13.000
40	0.938	0.984	1.728	1.078	-22.000
50	0.925	0.975	2.150	1.125	-35.000

Units operating with glycol solutions are not included in the ARI Certification Program.

Fouling factor

Fouling refers to the accumulation of unwanted material on solid surfaces, most often in an aquatic environment. The fouling material can consist of either living organisms (biofouling) or a non-living substance (inorganic or organic). Fouling is usually distinguished from other surface-growth phenomena in that it occurs on a surface of a component, system or plant performing a defined and useful function, and that the fouling process impedes or interferes with this function.

Other terms used in the literature to describe fouling include: deposit formation, encrustation, crudding, deposition, scaling, scale formation, slagging, and sludge formation. The last six terms have a more narrow meaning than fouling within the scope of the fouling science and technology, and they also have meanings outside of this scope; therefore, they should be used with caution.

Fouling phenomena are common and diverse, ranging from fouling of ship hulls, natural surfaces in the marine environment (marine fouling), fouling of heat-transfer components through ingredients contained in the cooling water or gases, and even the development of plaque or calculus on teeth, or deposits on solar panels on Mars, among other examples.

Foreign matter in the chilled water system will adversely affect the heat transfer capability of the evaporator, and could increase the pressure drop and reduce the water flow. To provide optimum unit operation, proper water treatment must be maintained. Refer to the able as following.

Fouling factor

ALTITUDE (m)	Difference of water inlet and outlet temp (℃)	Fouling Factor							
		0.018 ℃ /kW		0.044m 2 ℃ /kW		0.086m 2 ℃ /kW		0.172m 2 ℃ /kW	
		C	P	C	P	C	P	C	P
Sea level	3	1.036	1.077	1.019	1.076	0.991	0.975	0.963	0.983
	4	1.039	1.101	1.022	1.080	0.994	0.996	0.971	0.984
	5	1.045	1.105	1.028	1.086	1.000	1.000	0.977	0.989
	6	1.051	1.109	1.034	1.093	1.006	1.004	0.983	0.994
600	3	1.024	1.087	1.008	1.064	0.980	0.984	0.951	0.991
	4	1.027	1.111	1.011	1.068	0.983	1.005	0.959	0.992
	5	1.034	1.115	1.017	1.074	0.989	1.009	0.965	0.997
	6	1.043	1.115	1.026	1.084	0.998	1.009	0.973	0.999
1200	3	1.013	1.117	0.996	1.052	0.969	1.011	0.942	1.002
	4	1.015	1.118	0.998	1.055	0.971	1.012	0.948	1.003
	5	1.023	1.122	1.006	1.063	0.979	1.015	0.955	1.005
	6	1.031	1.125	1.015	1.072	0.987	1.018	0.962	1.007
1800	3	1.002	1.128	0.986	1.042	0.959	1.021	0.935	1.007
	4	1.005	1.129	0.989	1.045	0.962	1.022	0.941	1.010
	5	1.012	1.132	0.995	1.051	0.968	1.024	0.945	1.012
	6	1.018	1.134	1.001	1.058	0.974	1.026	0.949	1.014

C--Cooling capacity P--Power

Performance data

Cooling

Chilled water outlet temp.	Model	Ambient temp.°F(°C)													
		69.8(21)		77(25)		86(30)		95(35)		104(40)		114.8(46)		125.6(52)	
		Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power
°F(°C)		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
41(5)	30kW	33.59	8.81	31.63	9.08	29.84	9.36	28.2	9.65	26.42	10.13	24.31	10.64	21.88	11.17
	60kW	67.17	17.61	63.25	18.16	59.67	18.72	56.4	19.3	52.85	20.27	48.62	21.28	43.76	22.34
	120kW	134.35	34.35	126.5	35.41	119.34	36.51	112.8	37.64	105.69	39.52	97.24	41.49	87.51	43.57
	180kW	201.52	51.52	189.75	53.12	179.01	54.76	169.2	56.45	158.54	59.28	145.86	62.24	131.27	65.35
	250kW	279.89	68.96	263.55	71.09	248.63	73.29	235	75.56	220.2	79.34	202.58	83.3	182.32	87.47
42.8(6)	30kW	34.72	8.94	32.66	9.22	30.79	9.51	29.07	9.8	27.27	10.29	25.11	10.8	22.63	11.34
	60kW	69.44	17.89	65.33	18.44	61.57	19.01	58.14	19.6	54.54	20.58	50.23	21.61	45.25	22.69
	120kW	138.88	34.88	130.65	35.96	123.14	37.07	116.28	38.22	109.07	40.13	100.45	42.14	90.51	44.24
	180kW	208.32	52.32	195.98	53.94	184.71	55.61	174.42	57.33	163.61	60.2	150.68	63.21	135.76	66.37
	250kW	289.34	70.03	272.19	72.2	256.54	74.43	242.25	76.73	227.23	80.57	209.28	84.6	188.56	88.83
44.6(7)	30kW	35.93	9.13	33.77	9.41	31.8	9.7	30	10	28.17	10.5	25.97	11.03	23.43	11.58
	60kW	71.87	18.25	67.54	18.82	63.6	19.4	60	20	56.34	21	51.95	22.05	46.85	23.15
	120kW	143.73	35.59	135.09	36.7	127.2	37.83	120	39	112.68	40.95	103.89	43	93.71	45.15
	180kW	215.6	53.39	202.63	55.04	190.8	56.75	180	58.5	169.02	61.43	155.84	64.5	140.56	67.72
	250kW	299.44	71.46	281.43	73.67	265	75.95	250	78.3	234.75	82.22	216.44	86.33	195.23	90.64
46.4(8)	30kW	37.04	9.4	34.78	9.69	32.72	9.99	30.84	10.3	28.99	10.82	26.76	11.36	24.16	11.92
	60kW	74.09	18.8	69.57	19.38	65.44	19.98	61.68	20.6	57.98	21.63	53.51	22.71	48.32	23.85
	120kW	148.17	36.66	139.13	37.8	130.88	38.96	123.36	40.17	115.96	42.18	107.03	44.29	96.65	46.5
	180kW	222.26	54.99	208.7	56.69	196.33	58.45	185.04	60.26	173.94	63.27	160.54	66.43	144.97	69.75
	250kW	308.7	73.61	289.86	75.88	272.68	78.23	257	80.65	241.58	84.68	222.98	88.92	201.35	93.36
48.2(9)	30kW	38.09	9.49	35.73	9.79	33.58	10.09	31.62	10.4	29.75	10.92	27.49	11.47	24.85	12.04
	60kW	76.18	18.98	71.46	19.57	67.16	20.18	63.24	20.8	59.51	21.84	54.99	22.93	49.71	24.08
	120kW	152.35	37.02	142.92	38.16	134.32	39.34	126.48	40.56	119.02	42.59	109.97	44.72	99.41	46.95
	180kW	228.53	55.53	214.38	57.24	201.48	59.01	189.72	60.84	178.53	63.88	164.96	67.08	149.12	70.43
	250kW	317.4	74.32	297.75	76.62	279.84	78.99	263.5	81.43	247.95	85.5	229.11	89.78	207.11	94.27
50(10)	30kW	39.53	9.63	37.05	9.93	34.79	10.24	32.73	10.56	30.83	11.08	28.52	11.64	25.81	12.22
	60kW	79.06	19.27	74.1	19.86	69.58	20.48	65.45	21.11	61.66	22.17	57.03	23.28	51.61	24.44
	120kW	158.13	37.57	148.2	38.74	139.15	39.93	130.91	41.17	123.31	43.23	114.07	45.39	103.23	47.66
	180kW	237.19	56.36	222.3	58.1	208.73	59.9	196.36	61.75	184.97	64.84	171.1	68.08	154.84	71.49
	250kW	329.43	75.44	308.75	77.77	289.9	80.17	272.72	82.65	256.9	86.79	237.64	91.13	215.06	95.68
51.8(11)	30kW	40.63	9.73	38.05	10.03	35.69	10.34	33.54	10.66	31.63	11.19	29.29	11.75	26.54	12.34
	60kW	81.27	19.46	76.09	20.06	71.38	20.68	67.09	21.32	63.27	22.39	58.58	23.51	53.08	24.68
	120kW	162.54	37.94	152.19	39.12	142.77	40.33	134.18	41.57	126.53	43.65	117.17	45.84	106.15	48.13
	180kW	243.81	56.92	228.28	58.68	214.15	60.49	201.27	62.36	189.8	65.48	175.75	68.75	159.23	72.19
	250kW	338.62	76.18	317.06	78.53	297.43	80.96	279.54	83.47	263.61	87.64	244.1	92.02	221.15	96.62
53.6(12)	30kW	41.56	9.87	38.88	10.18	36.44	10.49	34.22	10.82	32.3	11.36	29.94	11.92	27.16	12.52
	60kW	83.13	19.74	77.76	20.35	72.88	20.98	68.43	21.63	64.6	22.71	59.88	23.85	54.31	25.04
	120kW	166.26	38.5	155.53	39.69	145.76	40.92	136.86	42.18	129.2	44.29	119.77	46.51	108.63	48.83
	180kW	249.38	57.75	233.29	59.53	218.64	61.38	205.29	63.27	193.8	66.44	179.65	69.76	162.94	73.25
	250kW	346.37	77.29	324.01	79.68	303.66	82.15	285.13	84.69	269.16	88.92	249.52	93.37	226.31	98.04
55.4(13)	30kW	42.31	9.95	39.54	10.26	37.02	10.58	34.73	10.9	32.82	11.45	30.46	12.02	27.65	12.62
	60kW	84.61	19.9	79.08	20.52	74.04	21.15	69.46	21.81	65.64	22.9	60.91	24.04	55.31	25.24
	120kW	169.22	38.81	158.15	40.01	148.08	41.24	138.92	42.52	131.28	44.65	121.82	46.88	110.62	49.22
	180kW	253.84	58.21	237.23	60.01	222.13	61.87	208.37	63.78	196.91	66.97	182.74	70.32	165.92	73.83
	250kW	352.55	77.91	329.49	80.32	308.51	82.81	289.41	85.37	273.49	89.64	253.8	94.12	230.45	98.82
57.2(14)	30kW	43.36	10.02	40.48	10.33	37.87	10.65	35.49	10.98	33.58	11.53	31.19	12.1	28.35	12.71
	60kW	86.72	20.04	80.97	20.66	75.74	21.3	70.99	21.96	67.15	23.05	62.38	24.21	56.71	25.42
	120kW	173.43	39.08	161.94	40.28	151.48	41.53	141.97	42.82	134.31	44.96	124.77	47.2	113.42	49.56
	180kW	260.15	58.61	242.91	60.43	227.23	62.3	212.96	64.22	201.46	67.43	187.15	70.81	170.12	74.35
	250kW	361.32	78.45	337.37	80.88	315.59	83.38	295.78	85.96	279.8	90.26	259.94	94.77	236.28	99.51
59(15)	30kW	43.92	10.07	40.97	10.38	38.29	10.7	35.85	11.03	33.95	11.58	31.57	12.16	28.73	12.77
	60kW	87.83	20.14	81.93	20.76	76.57	21.4	71.7	22.06	67.9	23.17	63.14	24.33	57.46	25.54
	120kW	175.66	39.27	163.86	40.48	153.14	41.74	143.39	43.03	135.79	45.18	126.29	47.44	114.92	49.81
	180kW	263.49	58.9	245.79	60.72	229.71	62.6	215.09	64.54	203.69	67.77	189.43	71.15	172.38	74.71
	250kW	365.96	78.84	341.38	81.28	319.05	83.79	298.73	86.38	282.9	90.7	263.1	95.24	239.42	100

Note: The inlet/outlet water temperature difference is 5°C.

Heating

Hot water outlet temp.	Model	Ambient temp.°F(°C)													
		14(-10)		21.2(-6)		28.4(-2)		35.6(2)		44.6(7)		50(10)		55.4(13)	
		Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power	Capacity	Power
°F(°C)		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
104(40)	30kW	19.89	6.13	24.86	6.97	29.25	7.74	32.5	8.42	35.33	8.86	39.57	9.39	45.5	10.14
	60kW	40.4	12.51	50.5	14.22	59.41	15.8	66.02	17.17	71.76	18.08	80.37	19.16	92.42	20.7
	120kW	80.8	25.03	101	28.44	118.83	31.6	132.03	34.35	143.51	36.16	160.73	38.33	184.85	41.39
	180kW	121.21	37.54	151.51	42.66	178.24	47.4	198.05	51.52	215.27	54.24	241.1	57.49	277.27	62.09
	250kW	167.82	50.06	209.78	56.88	246.8	63.2	274.22	68.7	298.07	72.31	333.83	76.65	383.91	82.78
105.8(41)	30kW	19.22	6.26	24.06	7.11	28.34	7.9	31.52	8.59	34.3	9.04	38.34	9.58	44.02	10.35
	60kW	39.04	12.77	48.87	14.51	57.56	16.12	64.02	17.52	69.67	18.45	77.89	19.55	89.41	21.12
	120kW	78.09	25.54	97.73	29.02	115.11	32.25	128.05	35.05	139.33	36.89	155.77	39.11	178.83	42.24
	180kW	117.13	38.31	146.6	43.53	172.67	48.37	192.07	52.57	209	55.34	233.66	58.66	268.24	63.36
	250kW	162.18	51.08	202.98	58.04	239.08	64.49	265.94	70.1	289.38	73.79	323.53	78.22	371.41	84.47
107.6(42)	30kW	18.67	6.38	23.39	7.26	27.58	8.06	30.72	8.76	33.46	9.22	37.34	9.78	42.79	10.56
	60kW	37.92	13.03	47.51	14.81	56.03	16.45	62.39	17.88	67.97	18.82	75.85	19.95	86.93	21.55
	120kW	75.83	26.06	95.03	29.61	112.06	32.9	124.79	35.77	135.93	37.65	151.7	39.91	173.85	43.1
	180kW	113.75	39.09	142.54	44.42	168.09	49.36	187.18	53.65	203.9	56.47	227.56	59.86	260.78	64.65
	250kW	157.5	52.12	197.36	59.23	232.74	65.81	259.18	71.53	282.33	75.3	315.08	79.81	361.08	86.2
109.4(43)	30kW	18.22	6.52	22.86	7.4	26.98	8.23	30.08	8.94	32.8	9.41	36.54	9.98	41.81	10.77
	60kW	37	13.3	46.42	15.11	54.81	16.79	61.1	18.25	66.63	19.21	74.23	20.36	84.92	21.99
	120kW	74	26.59	92.85	30.22	109.62	33.58	122.21	36.5	133.27	38.42	148.46	40.72	169.84	43.98
	180kW	111	39.89	139.27	45.33	164.43	50.36	183.31	54.74	199.9	57.62	222.69	61.08	254.76	65.97
	250kW	153.69	53.18	192.84	60.44	227.67	67.15	253.82	72.99	276.79	76.83	308.34	81.44	352.75	87.96
111.2(44)	30kW	17.86	6.65	22.44	7.55	26.53	8.39	29.61	9.12	32.32	9.6	35.94	10.18	41.04	10.99
	60kW	36.28	13.57	45.58	15.42	53.88	17.13	60.14	18.62	65.65	19.6	73	20.78	83.37	22.44
	120kW	72.57	27.13	91.17	30.83	107.76	34.26	120.27	37.24	131.3	39.2	146.01	41.55	166.74	44.88
	180kW	108.85	40.7	136.75	46.25	161.64	51.39	180.41	55.86	196.95	58.8	219.01	62.33	250.11	67.31
	250kW	150.72	54.27	189.35	61.67	223.81	68.52	249.79	74.48	272.7	78.4	303.24	83.1	346.3	89.75
113(45)	30kW	17.6	6.78	22.14	7.71	26.21	8.57	29.28	9.31	32	9.8	35.52	10.39	40.49	11.22
	60kW	35.76	13.84	44.98	15.73	53.23	17.48	59.48	19	65	20	72.15	21.2	82.25	22.9
	120kW	71.52	27.69	89.96	31.46	106.46	34.96	118.95	38	130	40	144.3	42.4	164.5	45.79
	180kW	107.28	41.53	134.94	47.2	159.69	52.44	178.43	57	195	60	216.45	63.6	246.75	68.69
	250kW	148.54	55.38	186.84	62.93	221.11	69.92	247.05	76	270	80	299.7	84.8	341.66	91.58
114.8(46)	30kW	17.26	6.85	21.74	7.79	25.76	8.65	28.81	9.4	31.52	9.9	34.92	10.49	39.74	11.33
	60kW	35.06	13.98	44.15	15.89	52.32	17.65	58.52	19.19	64.03	20.2	70.94	21.41	80.73	23.12
	120kW	70.12	27.97	88.31	31.78	104.63	35.31	117.04	38.38	128.05	40.4	141.88	42.82	161.46	46.25
	180kW	105.18	41.95	132.46	47.67	156.95	52.96	175.56	57.57	192.08	60.6	212.82	64.24	242.19	69.37
	250kW	145.63	55.93	183.41	63.56	217.31	70.62	243.08	76.76	265.95	80.8	294.67	85.65	335.34	92.5
116.6(47)	30kW	16.75	6.99	21.12	7.94	25.06	8.82	28.06	9.59	30.73	10.1	33.99	10.7	38.61	11.56
	60kW	34.02	14.26	42.9	16.21	50.9	18.01	56.99	19.57	62.42	20.6	69.04	21.84	78.43	23.59
	120kW	68.05	28.52	85.81	32.41	101.79	36.02	113.99	39.15	124.85	41.21	138.08	43.68	156.86	47.17
	180kW	102.07	42.79	128.71	48.62	152.69	54.02	170.98	58.72	187.27	61.81	207.12	65.52	235.29	70.76
	250kW	141.33	57.05	178.22	64.83	211.41	72.03	236.74	78.3	259.3	82.42	286.79	87.36	325.79	94.35
118.4(48)	30kW	16.09	7.2	20.31	8.18	24.13	9.09	27.05	9.88	29.66	10.4	32.74	11.02	37.13	11.9
	60kW	32.68	14.69	41.26	16.69	49.01	18.55	54.94	20.16	60.24	21.22	66.5	22.5	75.42	24.3
	120kW	65.36	29.38	82.52	33.39	98.01	37.1	109.88	40.32	120.48	42.44	133.01	44.99	150.83	48.59
	180kW	98.04	44.07	123.79	50.08	147.02	55.64	164.82	60.48	180.72	63.67	199.51	67.49	226.25	72.89
	250kW	135.75	58.76	171.4	66.77	203.56	74.19	228.21	80.64	250.23	84.89	276.25	89.98	313.27	97.18
120.2(49)	30kW	15.21	7.49	19.23	8.51	22.87	9.45	25.67	10.27	28.17	10.81	31.05	11.46	35.15	12.38
	60kW	30.9	15.28	39.07	17.36	46.45	19.29	52.13	20.97	57.23	22.07	63.06	23.4	71.39	25.27
	120kW	61.8	30.56	78.13	34.72	92.9	38.58	104.27	41.93	114.46	44.14	126.13	46.79	142.78	50.53
	180kW	92.7	45.83	117.2	52.08	139.35	57.87	156.4	62.9	171.68	66.21	189.19	70.19	214.17	75.8
	250kW	128.36	61.11	162.27	69.44	192.95	77.16	216.56	83.87	237.71	88.28	261.96	93.58	296.54	101.07
122(50)	30kW	14.23	7.86	18.02	8.93	21.45	9.92	24.1	10.79	26.48	11.36	29.13	12.04	32.92	13
	60kW	28.91	16.04	36.6	18.23	43.57	20.25	48.95	22.02	53.79	23.17	59.17	24.57	66.87	26.53
	120kW	57.82	32.08	73.19	36.46	87.14	40.51	97.9	44.03	107.59	46.35	118.35	49.13	133.73	53.06
	180kW	86.73	48.12	109.79	54.69	130.7	60.76	146.86	66.05	161.38	69.52	177.52	73.7	200.6	79.59
	250kW	120.09	64.17	152.02	72.92	180.97	81.02	203.34	88.06	223.45	92.7	245.8	98.26	277.75	106.12

Note: The inlet/outlet water temperature difference is 5°C.

Electrical data

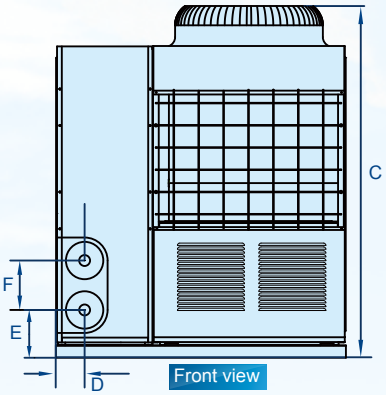
Model	Outdoor Unit				Power		Compressor Type-1					Compressor Type-2					OFM				CRANKCASE		
	Hz	Voltage	Min.	Max.	TOCA	MFA	SC	MRC	RC	RP	Qty	SC	MRC	RC	RP	Qty	IP	FL	FC	Qty	Voltage	TW	TA
MGBT-F30W/RN1	50	380-415	342	456	25	36	64	16	8.3	4.75	2	/	/	/	/	/	0.66	6	3	1	220	60	0.3
MGBT-D30W/RN1	50	380-415	342	456	25	36	64	16	8.3	4.75	1	64	16	8.5	4.93	1	0.66	6	3	1	220	60	0.3
MGBT-F60W/RN1	50	380-415	342	456	52	100	142	29	16.93	9.462	2	/	/	/	/	/	0.88	8.1	4.05	2	220	60	0.36
MGBT-D60W/RN1	50	380-415	342	456	52	100	118	29	17.8	10.2	2	82.4	18	9.8	5.75	1	0.88	8.1	4.05	2	220	100	0.45
MGBT-F120W/RN1	50	380-415	342	456	90	200	142	29	16.93	9.462	4	/	/	/	/	/	0.88	8.1	4.05	4	220	80	0.36
MGBT-F180W/RN1	50	380-415	342	456	135	300	142	29	16.93	9.462	6	/	/	/	/	/	0.88	8.1	4.05	6	220	80	0.36
MGBT-F250W/RN1	50	380-415	342	456	191	380	142	29	16.93	9.462	8	/	/	/	/	/	0.965	3.6	1.8	8	220	80	0.36
MGCT-F30W/PN1	60	380	342	418	25.3	36	94	18	9.9	5.48	2	/	/	/	/	/	0.87	8	4	2	220	60	0.3
MGCT-D30W/PN1	60	380	342	418	25.3	36	94	18	9.9	5.48	1	65.6	16	8.5	4.71	1	0.87	8	4	2	220	60	0.3
MGBT-F60W/PN1	60	380	342	418	54.5	100	160	26	18.99	9.957	2	/	/	/	/	/	0.103	4.2	2.1	4	220	80	0.36
MGBT-F120W/PN1	60	380	342	418	130	200	160	26	18.99	9.957	4	/	/	/	/	/	0.103	4.2	2.1	4	220	80	0.36
MGBT-F180W/PN1	60	380	342	418	160	180	160	26	18.99	9.957	6	/	/	/	/	/	0.103	4.2	2.1	6	220	80	0.36
MGBT-F30W/DN1	60	220	198	242	25.3	36	114	29	17.8	5.45	2	/	/	/	/	/	0.87	8	4	1	127	60	0.48
MGBT-F60W/DN1	60	220	198	242	54.5	100	267	43	31.28	9.957	2	/	/	/	/	/	0.105	7.4	3.7	2	127	80	0.62
MGBT-F120W/DN1	60	220	198	242	130	200	267	43	31.28	9.957	4	/	/	/	/	/	0.105	7.4	3.7	4	127	80	0.62
MGBT-F180W/DN1	60	220	198	242	160	180	267	43	31.28	9.957	6	/	/	/	/	/	0.105	7.4	3.7	6	127	80	0.62

TOCA: Total Over-current Amps. (A) MFA: Max. Fuse Amps. (A) SC: Start current/A(each)
MRC: Max. running current/A(each) RP:Rated power/KW (each) RC:Rated current/A(each)
IP: Input power KW(each) FL: Fan full load amps(each) FC: Fan Circuit Amps(each)
TW: Total Watts TA:Total Amps

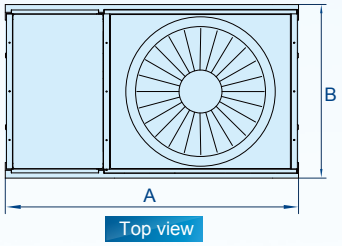
Dimensions→

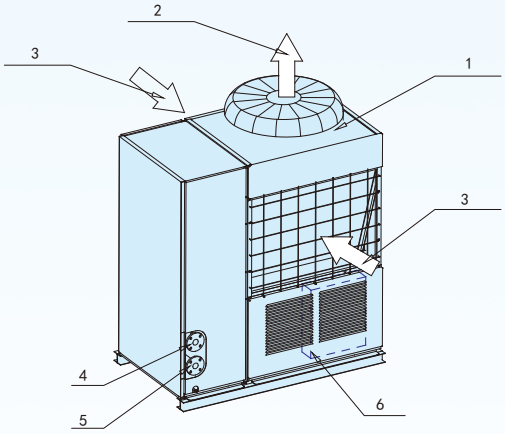
Dimensions

30kW module



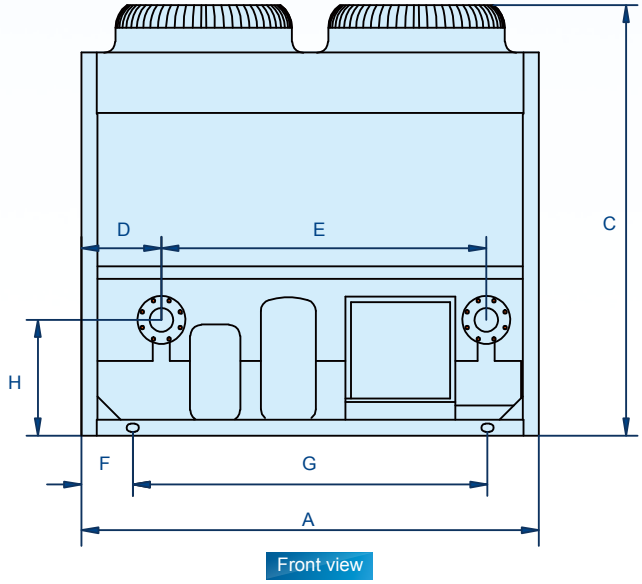
Model	Unit	A	B	C	D	E	F
MGCT-F(D)30W/PN1 MGBT-F30W/DN1	mm	1514	841	1865	115	315	172
	inch	59.6	33.11	73.43	4.53	12.4	6.77



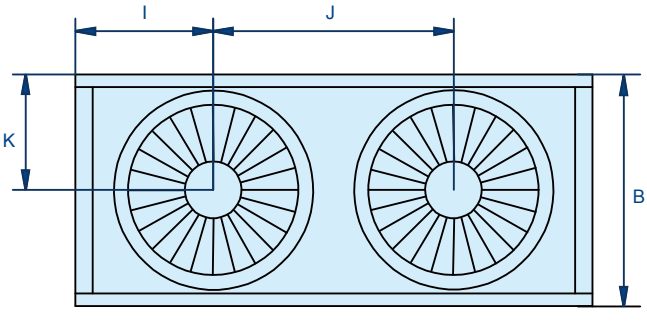


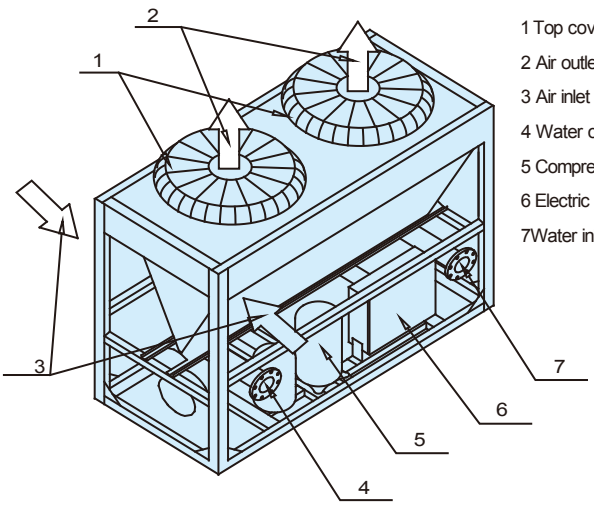
1 Top cover
2 Air outlet
3 Air inlet
4 Water outlet
5 Water inlet
6 Electric control box

60kW module



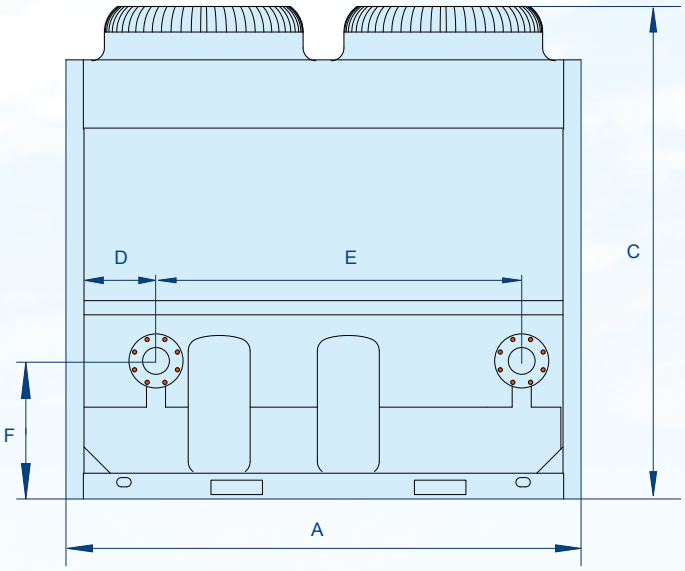
Model	Unit	A	B	C	D	E	F	G	H	I	J	K
MGBT-F60W/RN1 MGBT-D60W/RN1	mm	2000	900	1880	350	1420	225	1500	506	530	930	450
MGBT-F60W/PN1 MGBT-F60W/DN1	inch	78.74	35.4	74	13.78	55.91	8.86	59.06	19.92	20.87	36.61	17.72



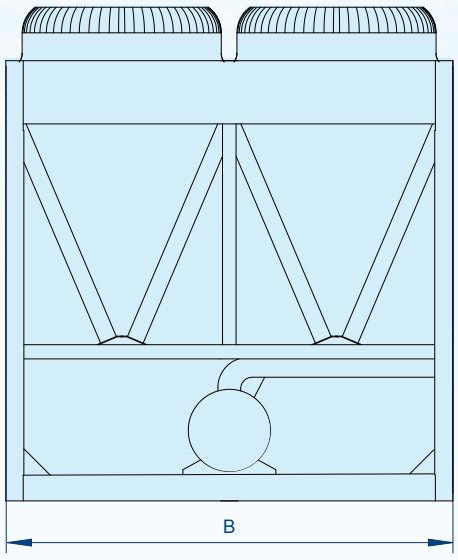


1 Top cover
2 Air outlet
3 Air inlet
4 Water outlet
5 Compressor
6 Electric control box
7Water inlet

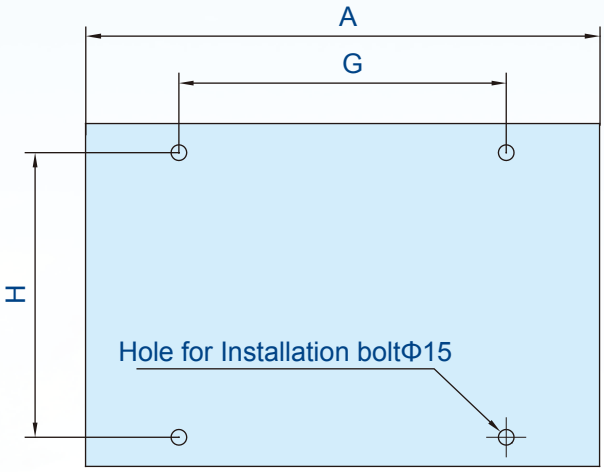
120kW module



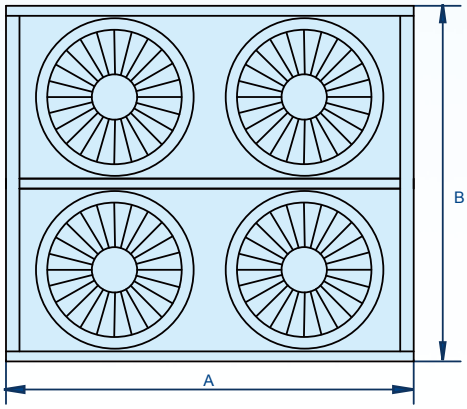
Front view



Side view



Installation hole



Top view

1 Top cover

2 Condenser

3 Compressor

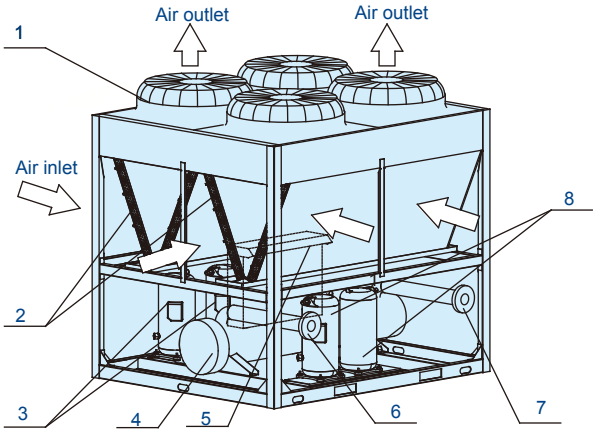
4 Evaporator

5 Electric control box Air inlet

6 Water outlet

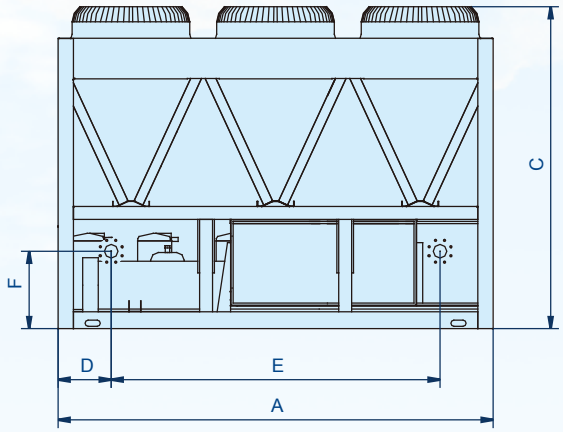
7Water inlet

8 Compressor

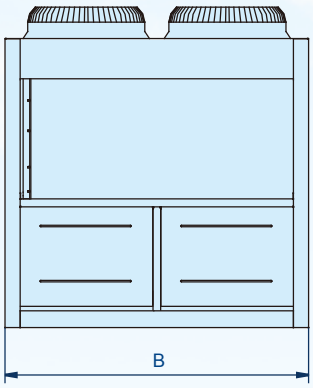


Model	Unit	A	B	C	D	E	F	G	H
MGBT-F120W/RN1 MGBT-F120W/PN1 MGBT-F120W/DN1	mm	2000	1685	2080	350	1420	506	1550	1586
	inch	78.74	66.34	81.89	13.78	55.91	19.92	61.02	62.44

180kW module

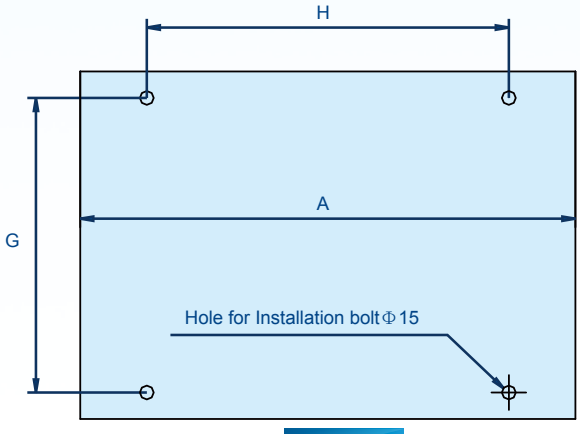


Front view

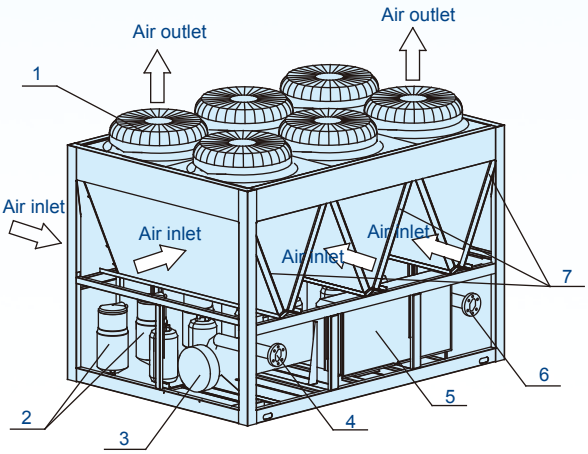


Left view

Model	Unit	A	B	C	D	E	F	G	H
MGBT-F180W/RN1 MGBT-F180W/PN1 MGBT-F180W/DN1	Mm	2850	2000	2110	3470	2156	506	1888	2388
	inch	112.2	78.74	83.07	136.61	84.88	19.92	74.33	94.02

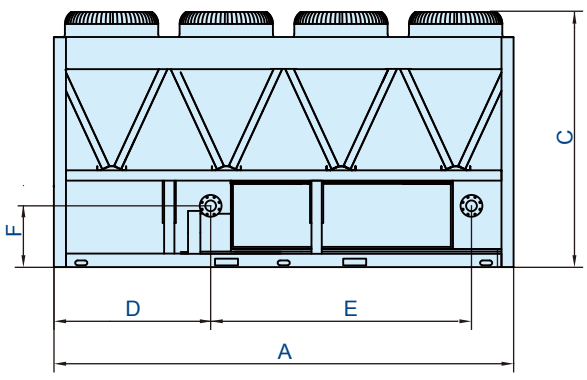


Installation hole

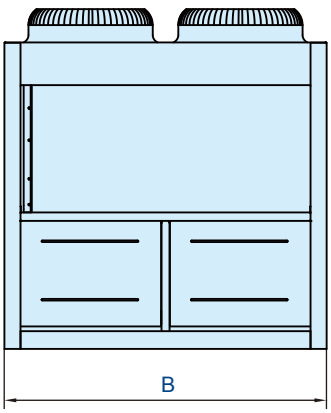


1.Top cover
2.Compressor
3.Evaporator
4.Water outlet
5.Electric control box
6.Water inlet
7.Condenser

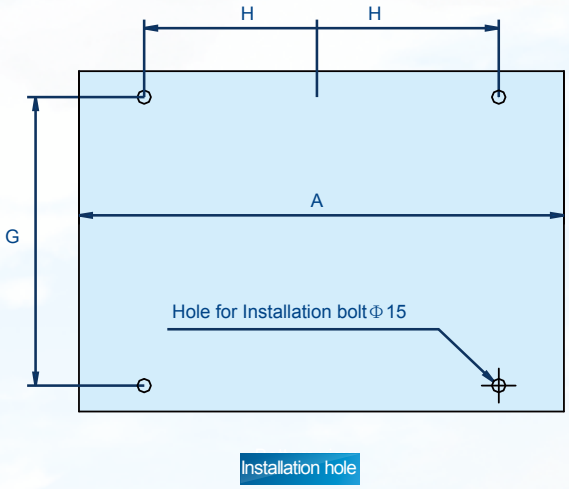
250kW module



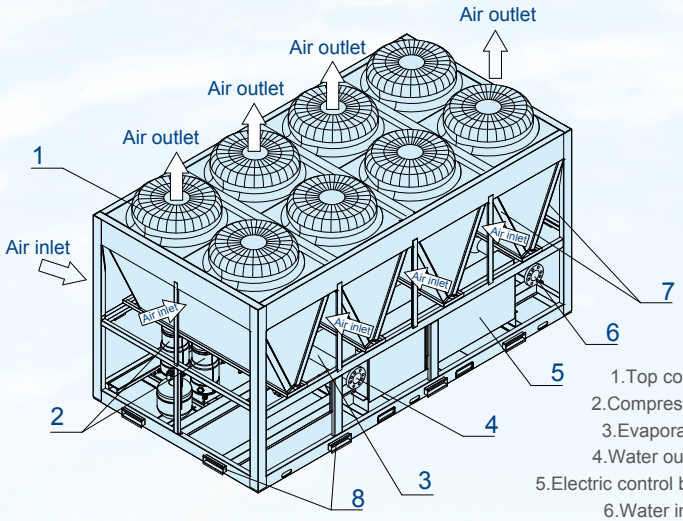
Front view



Left view



Installation hole



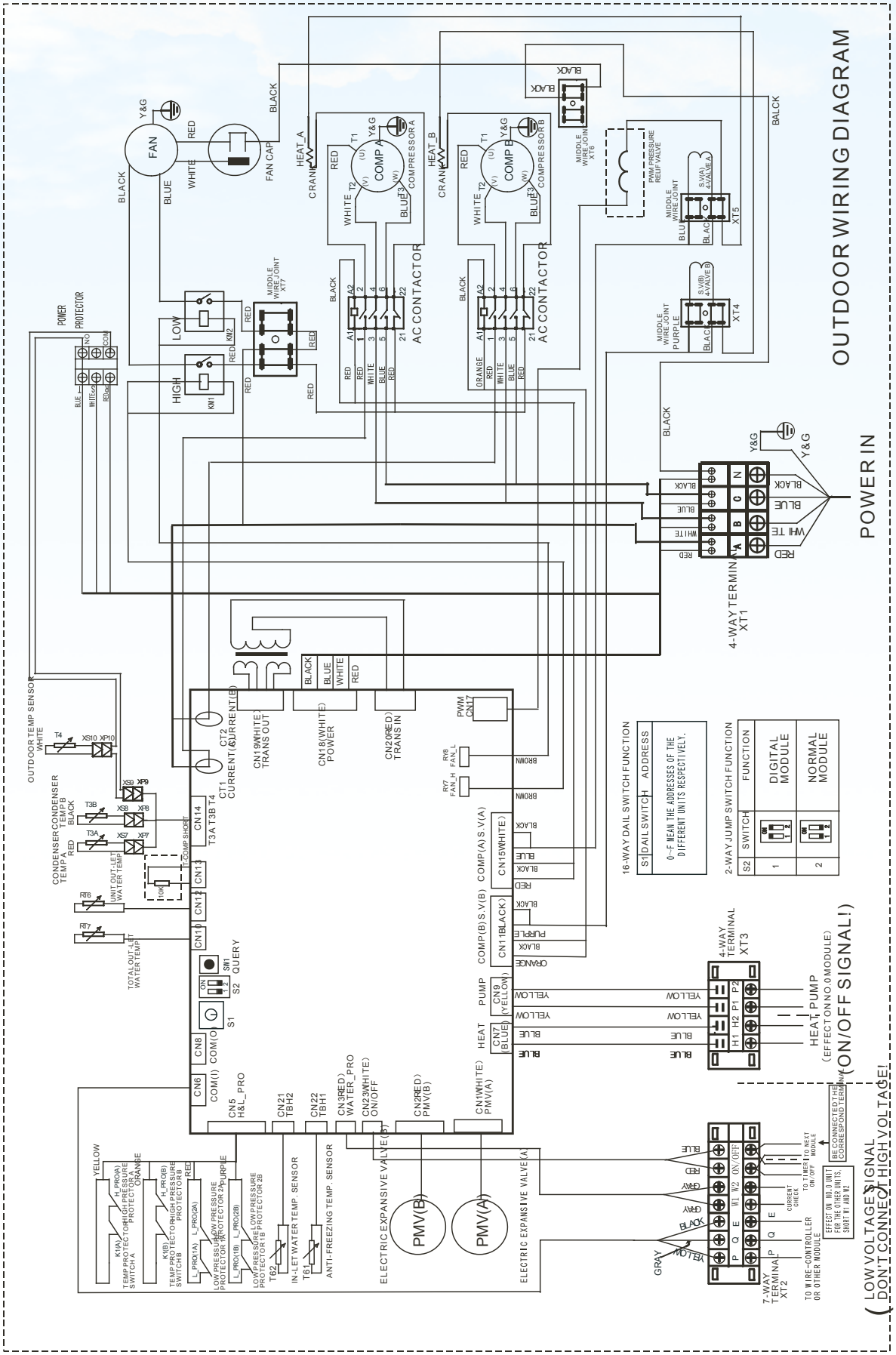
1.Top cover
2.Compressor
3.Evaporator
4.Water outlet
5.Electric control box
6.Water inlet
7.Condenser
8 .Transportation guard plate
(Be removed off after installation)

Model	Unit	A	B	C	D	E	F	G	H
MGBT-F250W/RN1	Mm	3800	2000	2130	1235	2156	573	1888	1551
	inch	149.6	78.74	83.86	48.62	84.88	22.56	74.33	61.06

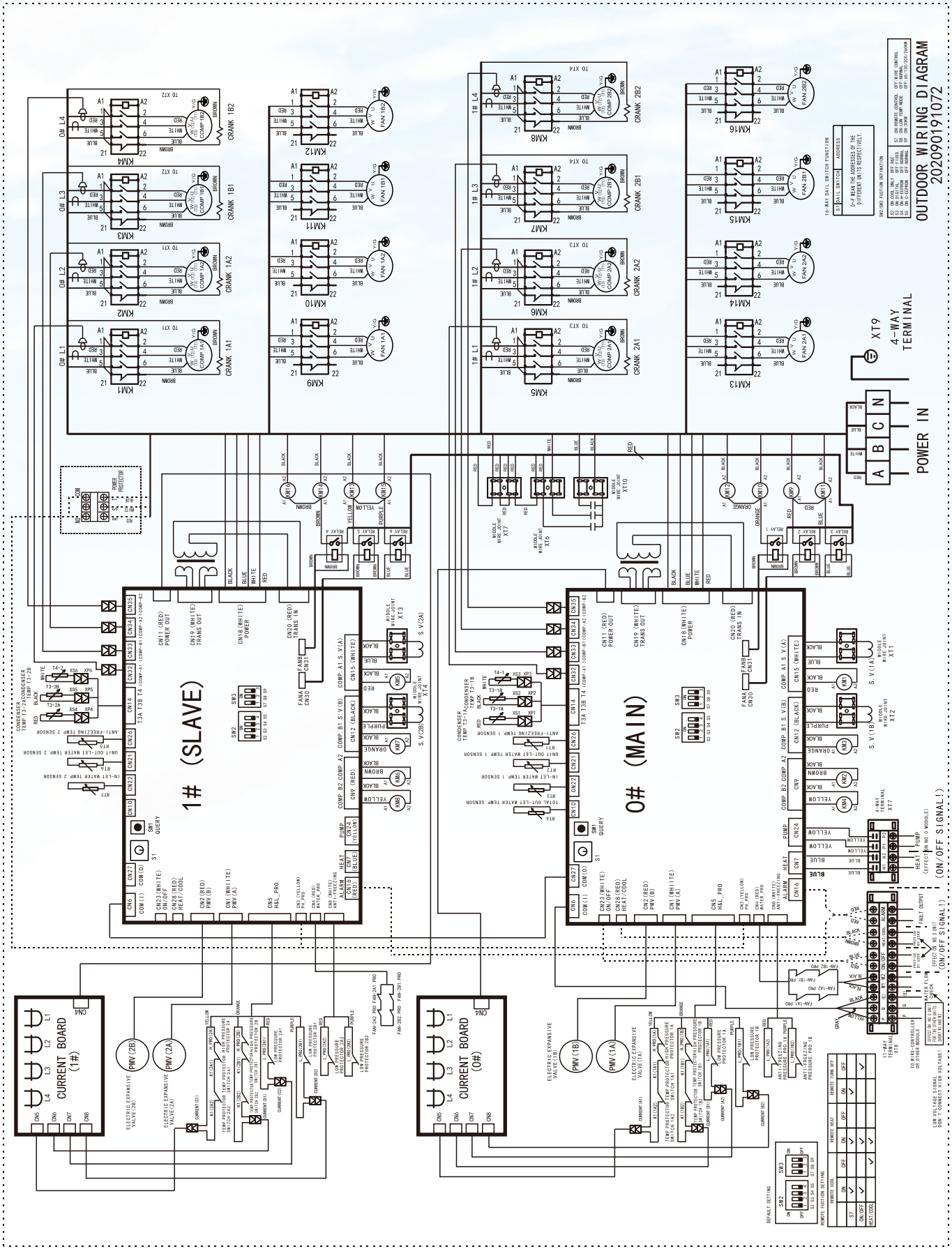
Typical schematic wiring diagram

30kW module

Attached Drawing (I) Electric Drawing of Main Unit and Auxiliary Unit



250kW module



Control system →

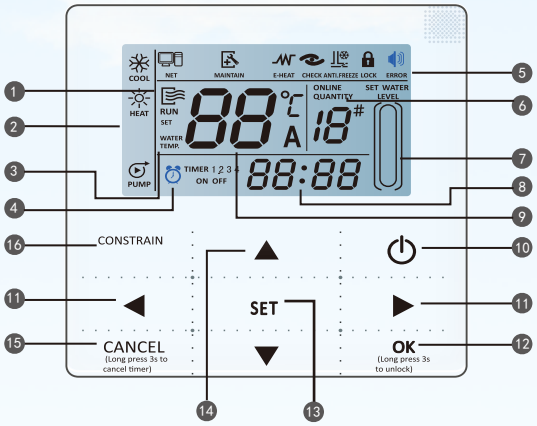
Control system

Control Devices

Type		Function Descriptions
Wired Controller	KJRM-120D/BMK-E	(Standard) ■ Parameter setting and display. ■ Real time clock control. ■ Malfunction manual reset. ■Hysteresis temp. setting. ■Touch key operation It can connect max. 16PCBs. MODBUS gateway is available by communication port X Y E in wired controller,it can be customized.
	KJR-120A/MBTE	(Optional) ■ Parameter setting and display. ■ Real time clock control. ■ Malfunction manual reset. ■Hysteresis temp. setting. ■ Weekly timing fucntion. It can connect max. 16PCBs.
LONWORKS Gateway		(Optional) ■ Operation mode setting. ■ Outlet water temperature setting. ■ Hysteresis setting. ■ Alarm clear setting. It can connect max. 16PCBs.
Network Control Software		(Optional) ■ Control operation mode in the refrigeration system. ■ Query real-time operating parameter in the main system and subsystem. ■ Set up the weekly timing that could realizes the schedule management for the refrigeration system. ■ Record refrigeration system error.It can connect max.16 wired controllers by ars485/232 converter, each wired controller can connect max. 16 PCBs.
Modbus gateway		(Optional) ■ Parameter setting and display. ■ Real time clock control. ■ Malfunction manual reset. ■Hysteresis temp. setting. ■Touch key operation One system can connect max. 16 Modbus gateway, each gateway can connect max 16PCBs.

Wired controller KJRM-120D/BMK-E(Standard)

The setting and operation order can be send to the main board and the running condition can be displayed by the wired controller. It can connect max. 16PCBs. It is available for all Midea air cooled scroll chillers.
The MODBUS gateway can be customized,it is available by communication port X,Y and E in wired controller.



Item	Description	Item	Description
1	Operation icon	9	Water temp.
2	Mode area	10	ON/OFF Key
3	Setting temperature	11	Right, Left Key
4	Timing On/Off	12	OK key
5	Function Icon	13	Setting key
6	On-line Unit Qty. Indication	14	Add, Reduce key
7	Reserved	15	Cancel key
8	Clock	16	Reserved. key

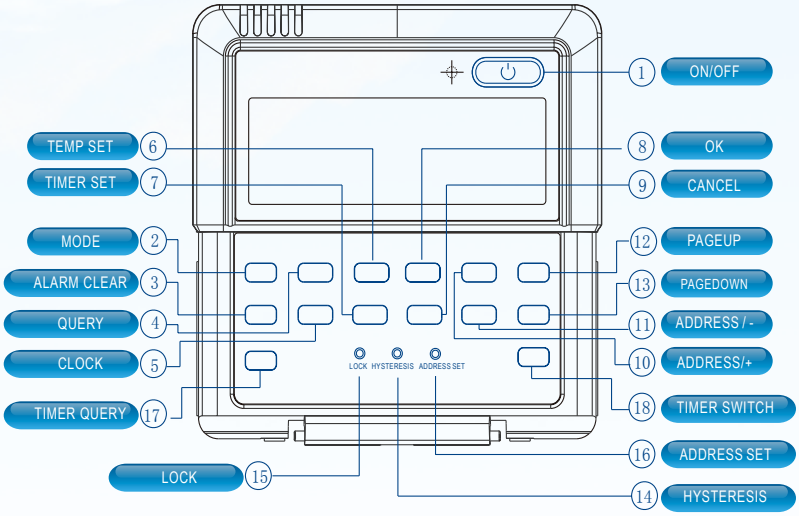
Function comparison of wired controller:

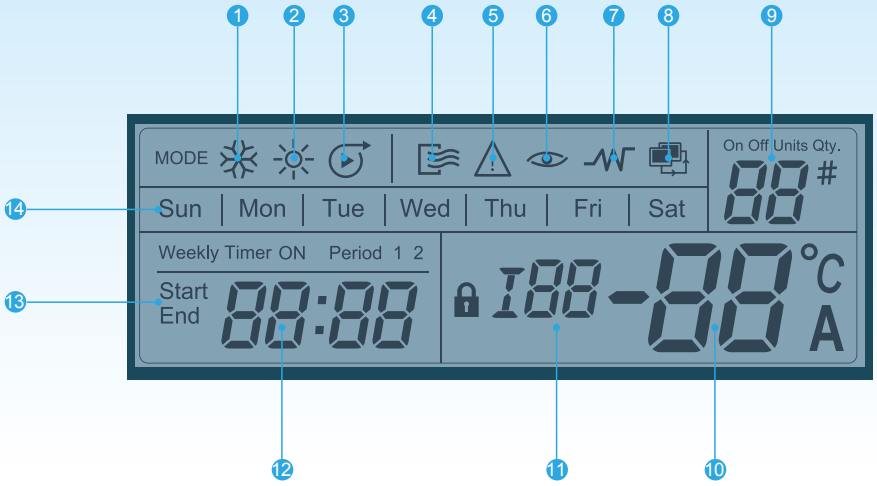
Function \ Wired controller	KJR-120A/MBTE	KJRM-120D/BMK-E
Parameter setting and display	●	●
Real time clock control	●	●
Malfunction manual reset	●	●
Long-distance control icon display	●	●
Weekly timer function	●	
Hysteresis temp. setting	●	●
Touch key operation		●
Network control software	●	
MODBUS gateway		●
LONWORKS gateway	●	●

Wired controller KJR-120A/MBTE(Optional, with weekly timer)

The wired controller KJR-120A/MBTE is functional design, it is available for all Midea cooled scroll chiller, it can automatically adjust the module which is new or old to execute the related indicator. The main functions as following:

- Provide the timing startup function.
- The temp. difference between start up temperature and setting temperature (It can be adjusted,the range is 2,3,4,5℃(2℃ is default)).
- Real-time timer function instead of relative time.
- Operation parameter checking button.
- Remote control icon display function.
- Malfunction manual reset.





Item	Description	Item	Description
1	Cooling mode.	8	Remote control is on or off.
2	Heating mode.	9	Display the units quantity on line/ON,OFF state.
3	Pump mode.	10	Display temp.,current,error codes,protection codes.
4	Normal running, the light is on.	11	Display the checking parameters(IA/IB/T3A/T3B).
5	The unit has error, the light is on.	12	Real time display./Week timing check and query display.
6	When querying, the light is on.	13	Display the week timing state. / The week timing set period display.
7	The electric heater works, the light is on.	14	Set week timing.

Network control system

The intelligent network control system of the Midea air-cooled scroll chiller mainly comprises the RS485/232 converter, which can connect max. 16 wired controllers, each wired controller can control max. 16 PCBs.

Main functions:

Controls the refrigeration system's operating mode.

Queries operation parameters in the main and subsystems in real time.

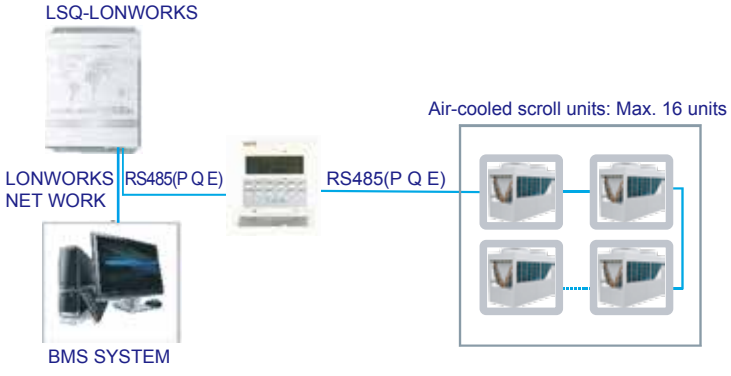
Provides a weekly timer for managing the refrigeration system.

Records refrigeration system errors.

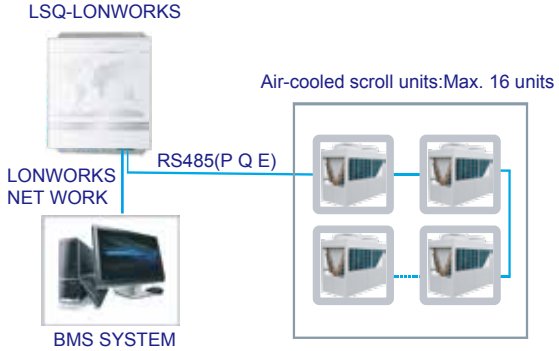
LONWORKS gateway

The unit's LONWORKS gateway controls the central A/C to facilitate the building management system (BMS). LONWORKS provides four settings to control the air-cooled modules: Operation Mode, Outlet Water Temperature, Hysteresis, and Clear Alarm.

Connection 1

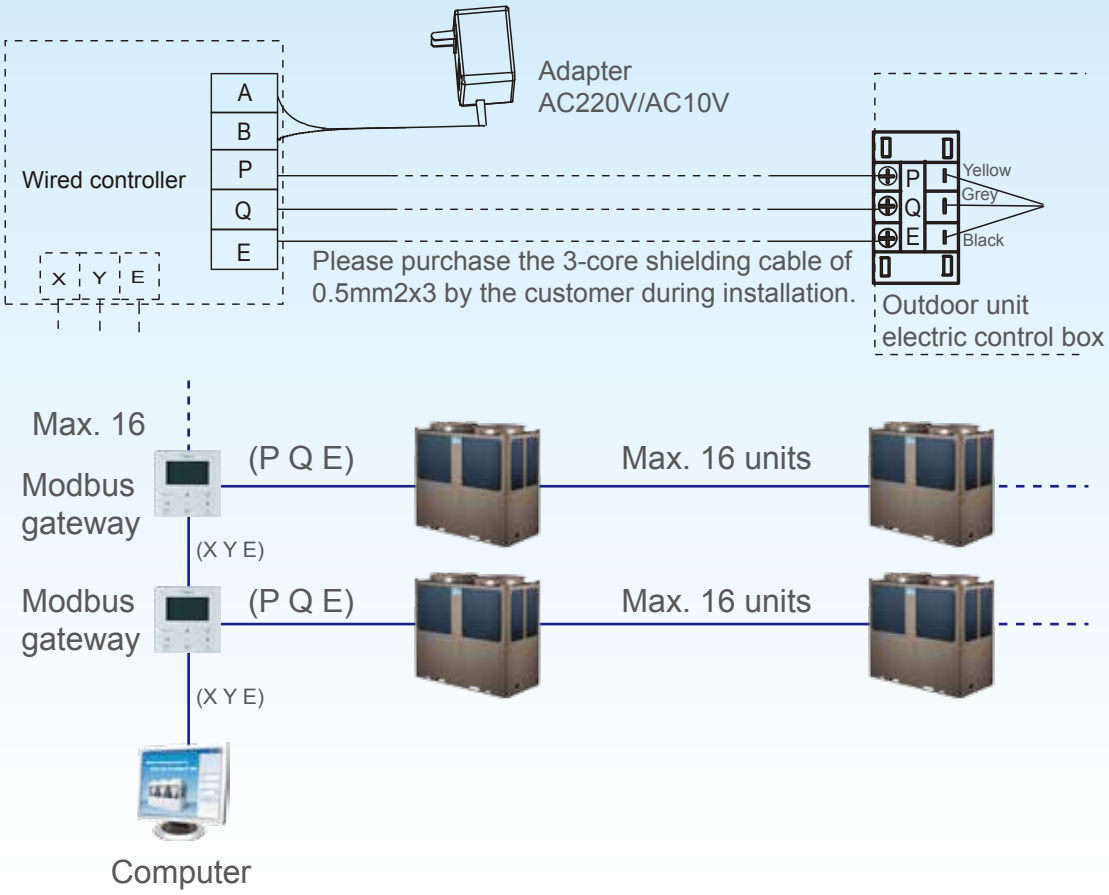


Connection 2



MODBUS gateway

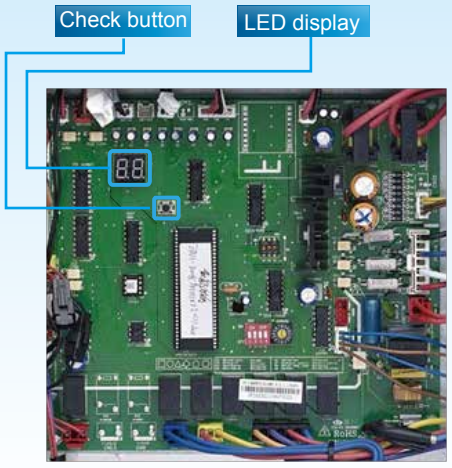
The Modbus gateway can be customized, it realizes intelligent network control by X Y E ports. It can connect max. 16 wired controllers, each wired controller can control max.16 PCBs.



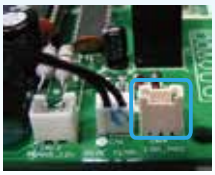
Protection

The main board's LED shows all alarm and protection information. The chiller controller continually performs self-diagnostic checks; monitors the system's temperature, pressure and protection devices; it will automatically shut down faulty compressors, refrigerant circuits or the entire unit if a fault occurs.

- Users can press Check on the LED to display the system's operational status.
- The LED displays protection or error codes if either condition occurs.



Compressor current protection



Phase protection

Error codes

No	Code	Trouble	No	Code	Trouble
1	E0	EEPROM error	16	P0	High pressure or air discharge temperature protection in system A
2	E1	Power phase sequence error	17	P1	Low pressure protection in system A
3	E2	Communication error	18	P2	High pressure or air discharge temperature protection in system B
4	E3	Total water outlet temperature sensor error	19	P3	Low pressure protection in system B
5	E4	Outlet water temperature sensor error in heat exchanger	20	P4	Current protection in system A
6	E5	Pipe temperature sensor error in condenser A	21	P5	Current protection in system B
7	E6	Pipe temperature sensor error in condenser B	22	P6	Condenser high pressure protection in system A
8	E7	Outdoor ambient temperature sensor error or power supply protection	23	P7	Condenser high pressure protection in system B
9	E8	Output error of the power protector	24	P8	(Reserved failure code)
10	E9	Water flow detection error	25	P9	Outlet and inlet water temperature difference protection
11	EA	(Reserved failure code)	26	PA	Low ambient temperature drive-up protection
12	Eb	Anti-freezing temperature sensor 1 error in shell and tube exchanger	27	Pb	System anti-freezing protection
13	EC	Wired controller detected that the units on-line have decreased	28	Pc	Anti-freezing pressure protection in system A
14	Ed	(Reserved failure code)	29	Pd	Anti-freezing pressure protection in system B
15	EF	Inlet water temperature sensor error	30	PE	Low-temperature protection of shell and tube heat exchanger

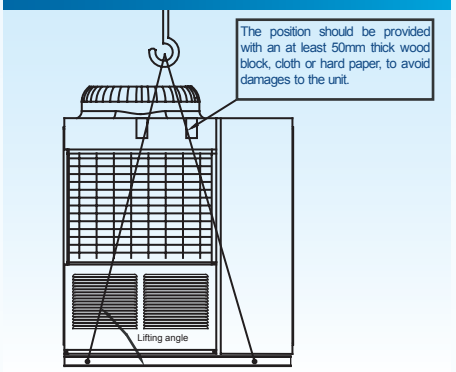
Rigging instructions

The angle of inclination should not be more than 15º when carrying the unit, to avoid overturn of the unit.

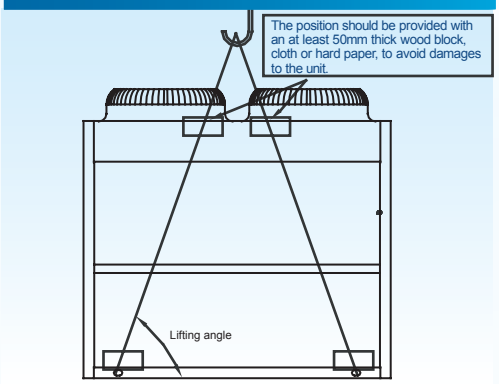
a. Rolling handling: several rolling rods of the same size are placed under the base of the unit, and the length of each rod must bemore than the outer frame of the base and suitable for balancing of the unit.

b. Lifting: the strength lifting rope (belt) can bear should be 4 times the weight of the unit. Check the lifting hook and ensure that it isfirmly attached to the unit, and the lifting angle should be more than 60º. To avoid damages to the unit, the contact position of the unitand lifting rope should be provided with an at least 50mm thick wood block, cloth or hard paper. Any person is not allowed to standbelow the unit when lifting it.

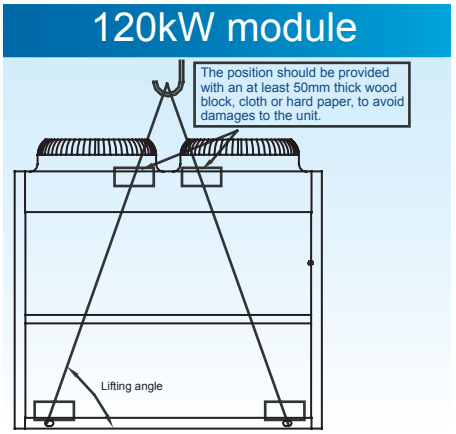
30kW module



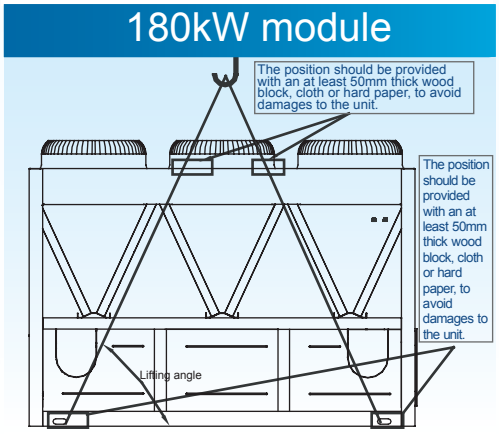
60kW module



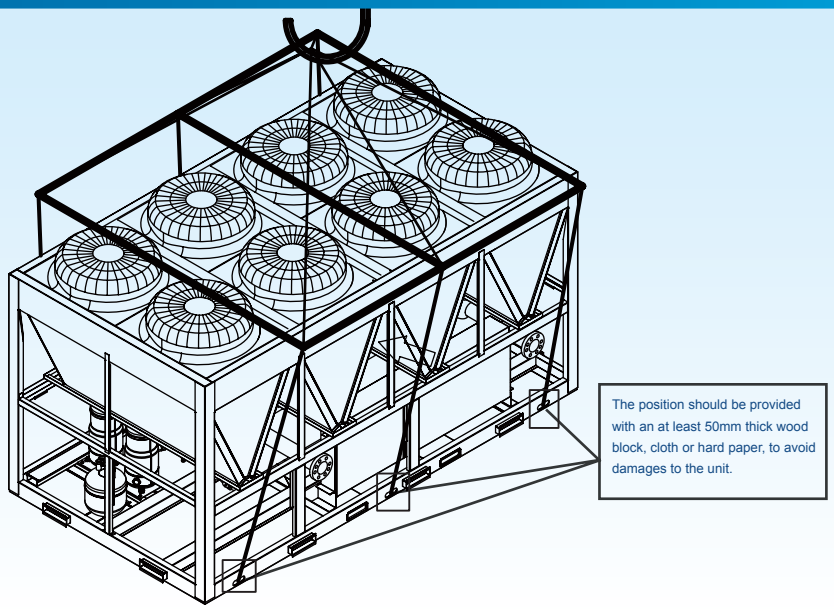
120kW module



180kW module

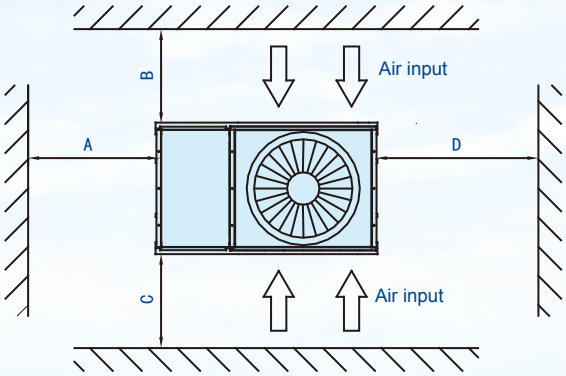


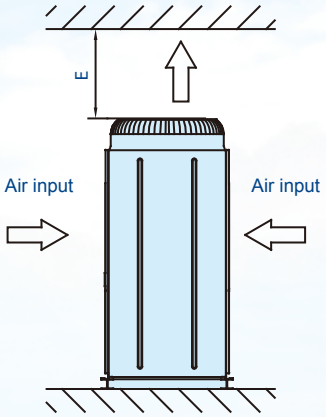
250kW module



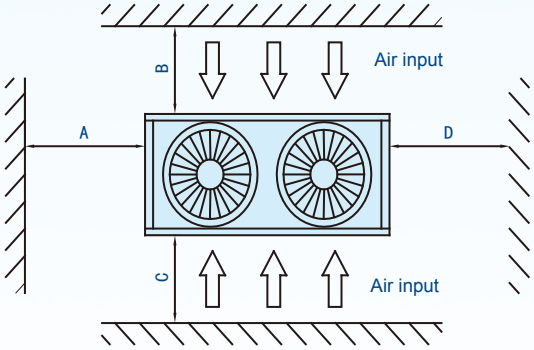
Installation clearance

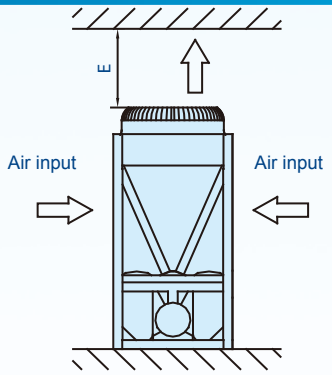
30kW module



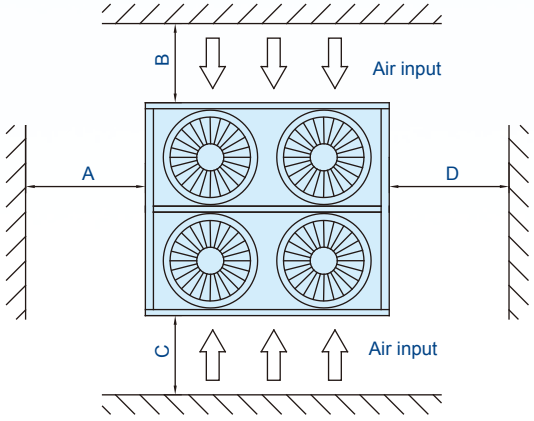


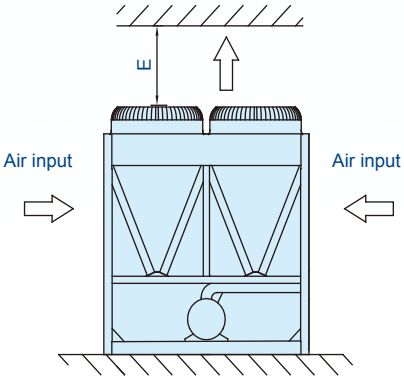
60kW module



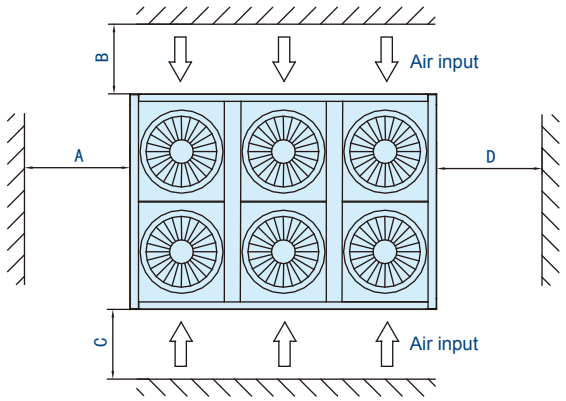


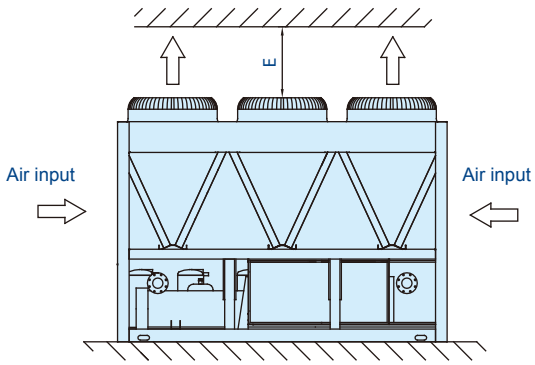
120kW module



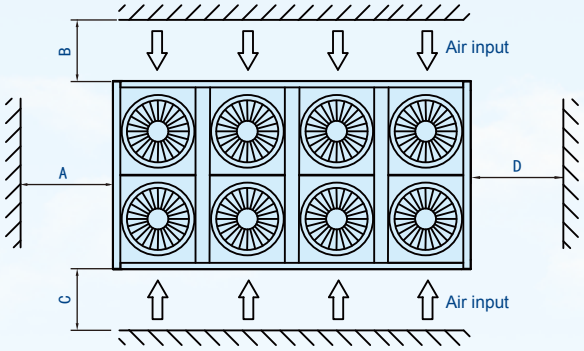


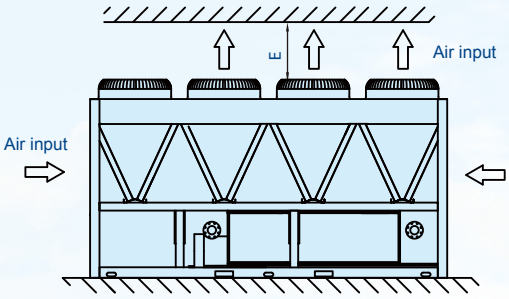
180kW module



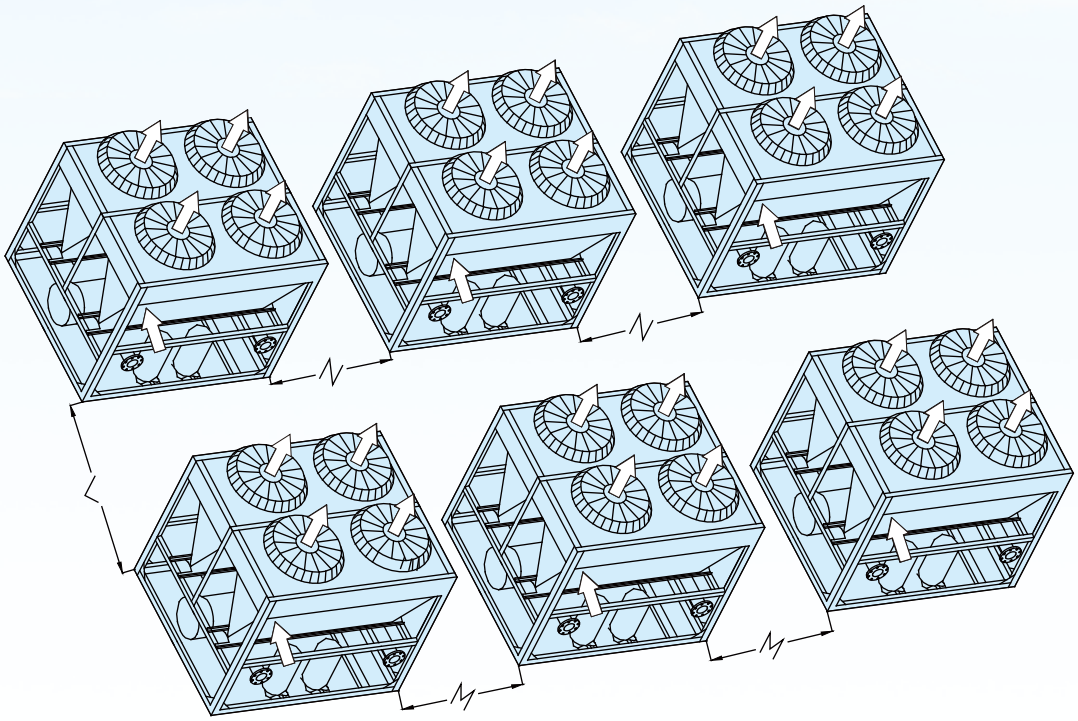


250kW module





Modules combination



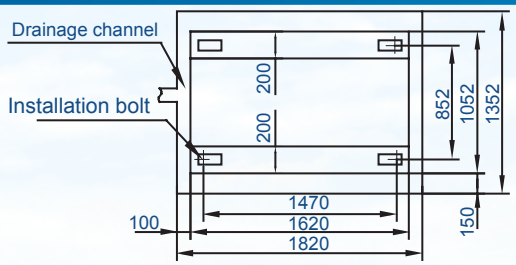
The recommend space parameter:

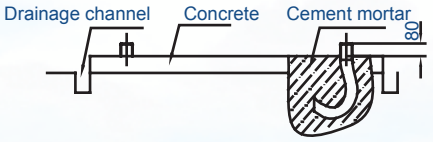
No	Model	Max unit combined quantity	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	L(mm)	M(mm)	N(mm)
1	MGBT-F(D)30W/RN1	16	≥1500	≥2000	≥2000	≥1500	≥8000	≥ 600	≥ 300	≥ 300
2	MGCT-F(D)30W/PN1	16						≥ 600	≥ 300	≥ 300
3	MGBT-F30W/DN1	16						≥ 600	≥ 300	≥ 300
4	MGBT-F(D)60W/RN1	16						≥ 600	≥ 300	≥ 300
5	MGBT-F60W/PN1	16						≥ 600	≥ 300	≥ 300
6	MGBT-F60W/DN1	16						≥ 600	≥ 300	≥ 300
7	MGBT-F120W/RN1	8						≥ 600	≥ 300	≥ 300
8	MGBT-F120W/PN1	8						≥ 600	≥ 300	≥ 300
9	MGBT-F120W/DN1	8						≥ 600	≥ 300	≥ 300
10	MGBT-F180W/RN1	5	≥2000					≥ 600	≥ 300	≥ 300
11	MGBT-F180W/PN1	5						≥ 600	≥ 300	≥ 300
12	MGBT-F180W/DN1	5				≥2000		≥ 600	≥ 300	≥ 300
13	MGBT-F250W/RN1	8						≥ 600	≥ 300	≥ 300

Mounting location

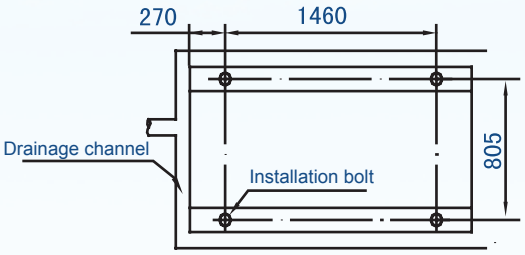
The unit should be located on the horizontal foundation, the ground floor or the roof which can bear operating weight of the unit and the weight of maintenance person.

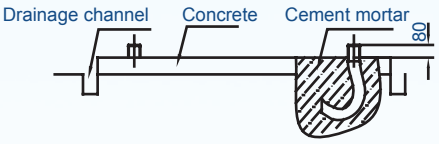
30kW module



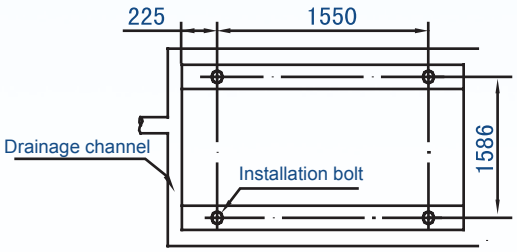


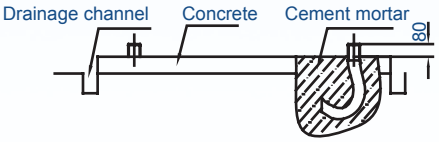
60kW module



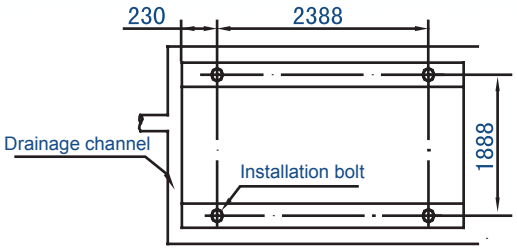


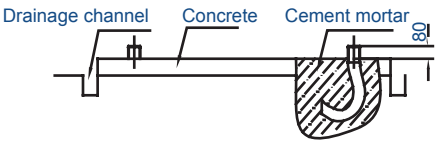
120kW module



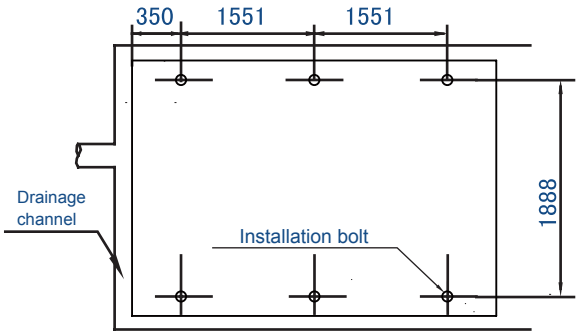


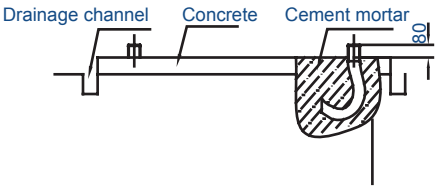
180kW module





250kW module



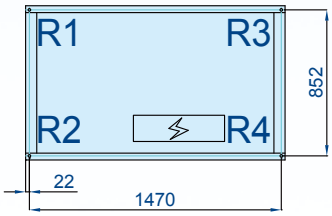


Load distribution

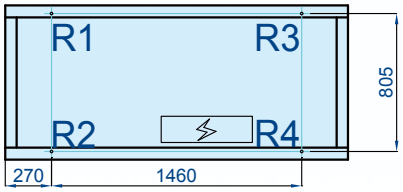
Unit:kg

No	Model	R 1	R 2	R 3	R 4	R 5	R 6
1	MGBT-F(D)30W/RN1	81	68	139	112	/	/
2	MGCT-F(D)30W/PN1	81	68	139	112	/	/
3	MGBT-F30W/DN1	81	68	139	112	/	/
4	MGBT-F(D)60W/RN1	170	180	145	155	/	/
5	MGBT-F60W/PN1	170	180	145	155	/	/
6	MGBT-F60W/DN1	170	180	145	155	/	/
7	MGBT-F120W/RN1	350	340	295	285	/	/
8	MGBT-F120W/PN1	350	340	295	285	/	/
9	MGBT-F120W/DN1	350	340	295	285	/	/
10	MGBT-F180W/RN1	567	433	567	433	/	/
11	MGBT-F180W/PN1	567	433	567	433	/	/
12	MGBT-F180W/DN1	567	433	567	433	/	/
13	MGBT-F250W/RN1	373	344	487	462	539	395

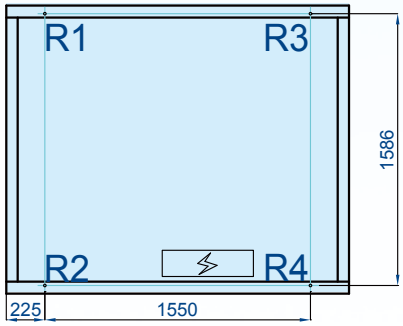
Dimension unit: mm



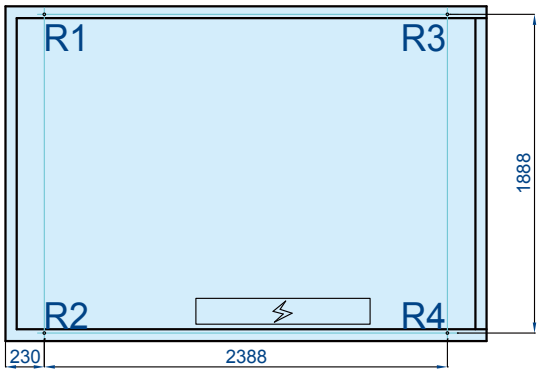
30kW module



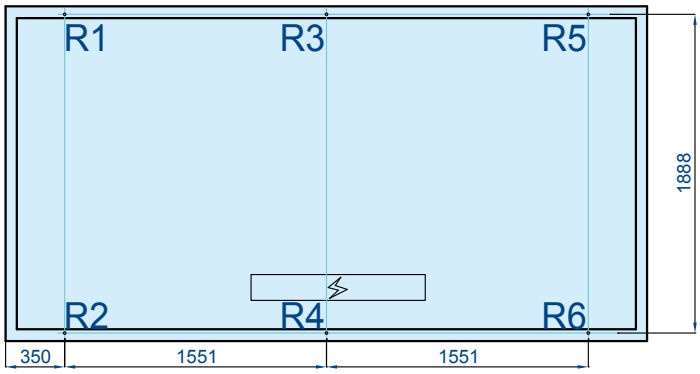
60kW module



120kW module



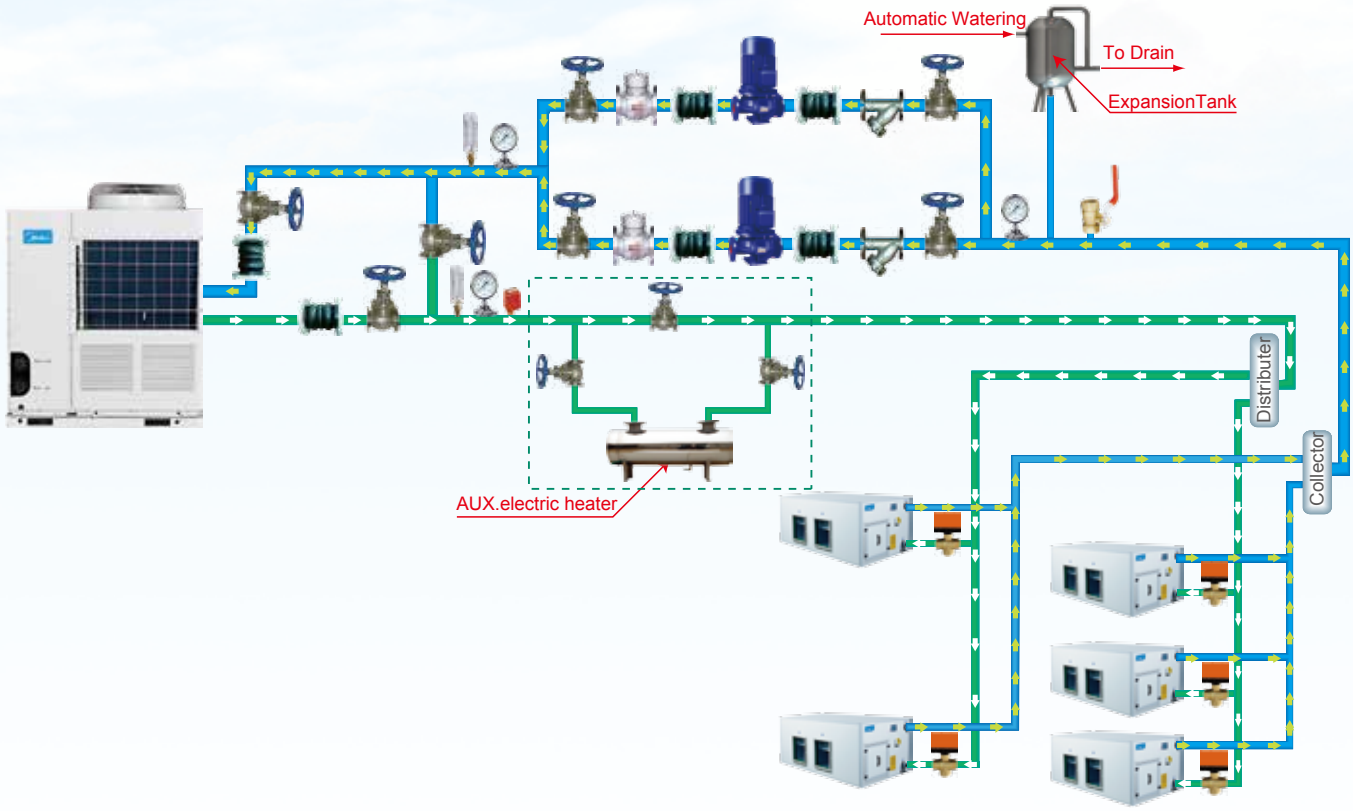
180kW module



250kW module

Typical piping

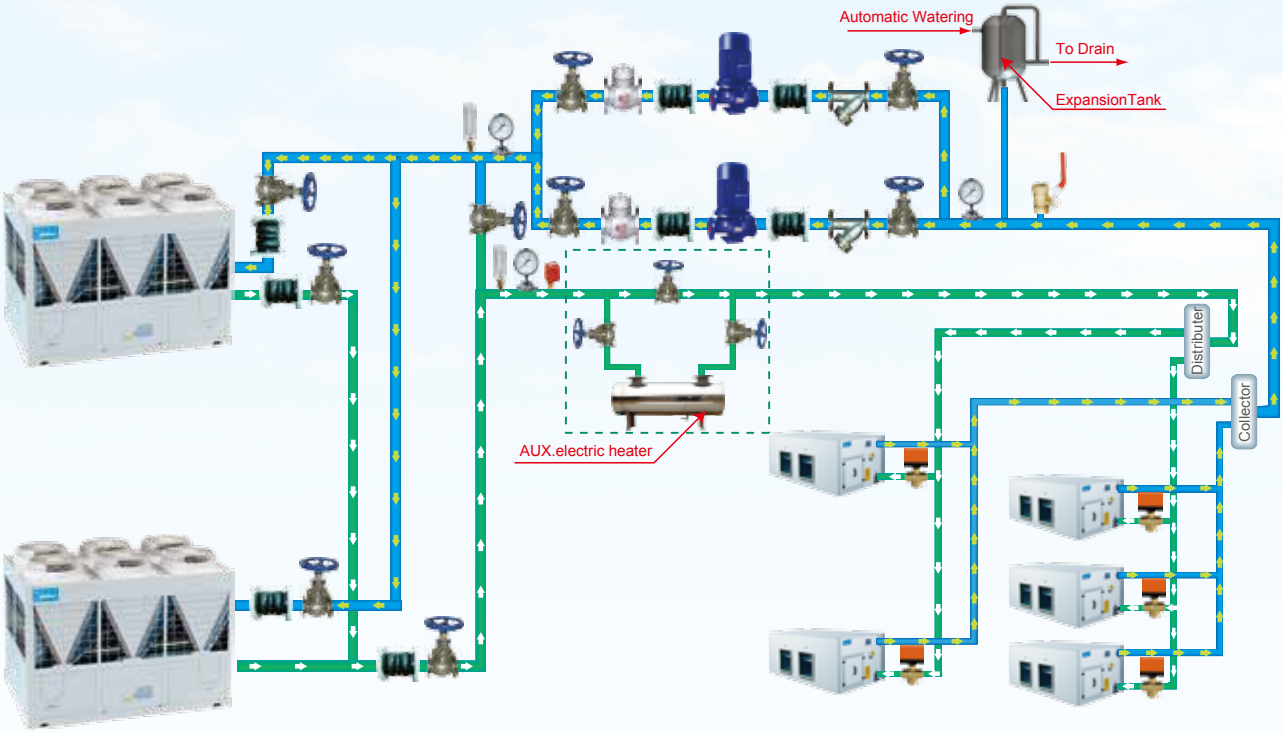
30kW module water pipeline sketch drawing



The table below describes the symbols.

Symbol	Symbol Explanation	Symbol	Symbol explanation
	Stop Valve		Y-Shaped Filter
	Pressure Gauge		Thermometer
	Water Flow Switch		Water Pump
	3-Way Valve		Check Valve
	Soft Joint		Air Vent

180kW module water pipeline sketch drawing



The table below describes the symbols.

Symbol	Symbol Explanation	Symbol	Symbol explanation
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Aqua M Series

Air cooled screw chiller

Contents

47 Product introduction
47 Nomenclature
48 Product lineup
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55 Electrical data
56 Water pressure drop
57 Dimensions
63 Rigging instructions
63 Installation clearance
64 Typical schematic wiring diagram
65 Mounting location
66 Load distribution

With half century experience in chiller industry, Midea Chongqing chiller manufacturing base is becoming one of the largest chiller companies in China. It covers an area of 800 Mu (137 acre), with a registered capital of 12.5 million US $ and a total investment of over 0.85 billion US$. There are 6 product series and over 100 model products including centrifugal chillers, screw water chillers, scroll water chillers, water-cooled packaged units, and central air-conditioning indoor terminal devices(AHU/FCU). Five chiller manufacture shops with 14 flexible production lines lead a manufacturing capacity of 500 units centrifugal chillers, 1000 units of air cooled screw, 2000 units of water cooled screw and 200000 units of AHU products.

Strong R&D and manufacturing capacity makes Midea Chongqing general become the fastest developing company in chiller industry. The chiller test lab which is certified by China National Refrigeration Equipment Inspection Center gets the largest refrigeration test capacity in Asia. The engineer team with 100 top engineers and international chiller experts who are working many years in structure, electricity, and performance testing and software aspect make Midea the headship in chiller industry. In the year of 2011 Midea CAC invested another 150 million RMB for test lab as ARI test stand, big capacity air cooled screw life span testing room, 1500kW compressor motor test lab etc.

Concentrating on energy-saving and environment protection, Midea Chongqing chiller factory commits itself to the reliable and high efficiency products for the world. The chiller products are widely used in different countries and obtain good public praise from the clients. The solutions for the Beijing capital international airport, Jakarta international airport, China rapid transit station win good feedback and commendation. Continuing with the past and opening up the future, Midea chiller brand will go further and create an illustrious future.

Product Introduction

Air cooled screw chiller is a kind of central air-conditioning unit which adopts air as the cooling or (Heating) source and water as the cooling or (heating) medium to cool down or (heat) the indoor ambient temperature through the indoor terminal(AHU/FCU). Midea air cooled screw chillers are the premium solution for industrial and commercial applications where installation contractors, consultants and building owners require optimal performances and optimized quality.Air cooled chiller typically have a lower initial investment and maintenance cost than water cooled system since it does not require a cooling tower, condenser water pump, and associated condenser water chemical treatment system.

Midea air cooled screw chillers are designed to meet current and future requirements in terms of reliability, energy efficiency and intelligent control. We use the best technologies available today :Twin-rotor screw compressors with a variable capacity valve are ideally matched to coolers and condensers optimally configured for superior heat transfer and unit efficiency. They are wildly applied in school, hospital, shopping mall, office as well as the factory and manufacturing processing area.

School

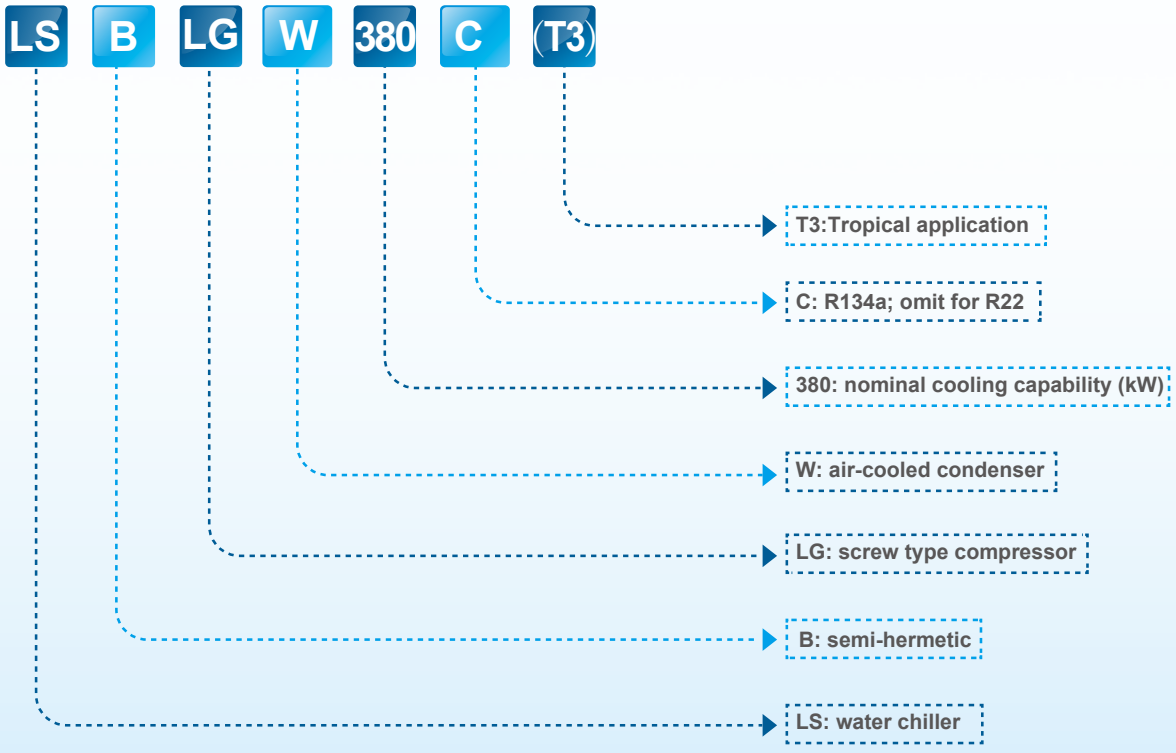
Factory

Hotel

Hospital

Office

Nomenclature



Product lineup

LSBLGW380/C (T3)

LSBLGW500/C (T3)

LSBLGW600/C (T3)

LSBLGW760/C (T3)

LSBLGW900/C (T3)

LSBLGW1000/C (T3)

LSBLGW1200/C (T3)

Features and benefits

Environmental responsibility

- A more efficient chiller means less electricity generation, which reduces greenhouse gas(CO_2) emissions.
- R134a friendly refrigerant has no ozone-depletion potential.
- Helps You AchieveLEED® Certification.
- Less refrigerant charge.
- High efficiency.

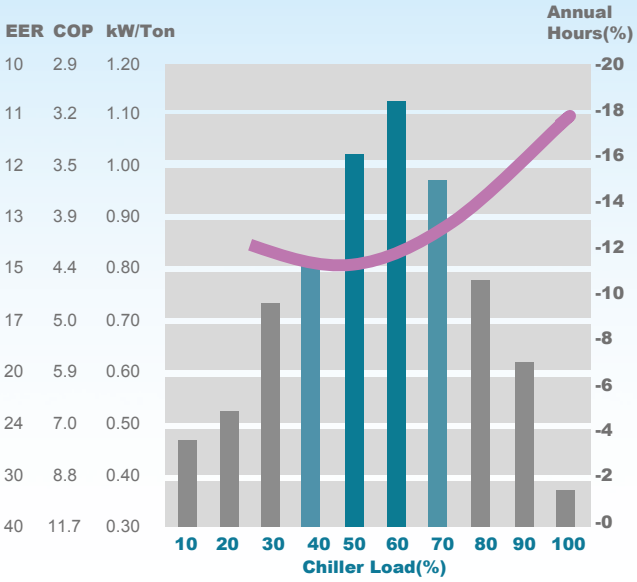
Operating cost savings

- Better IPLV:

Follows AHRI 550/590 calculation that notes the 99% of operating hours are not at full load.

The COP was design to the best on the 50% ~ 75% part load conditions.

Larger ΔT of cooler reducing HVAC system running cost.



Lowest total cost of ownership

Reliability low risk of uncomfortable downtime.

- The best parts, Bitzer Comp. &Danfoss EXV, Shneider electric.

- World-class testing facilities

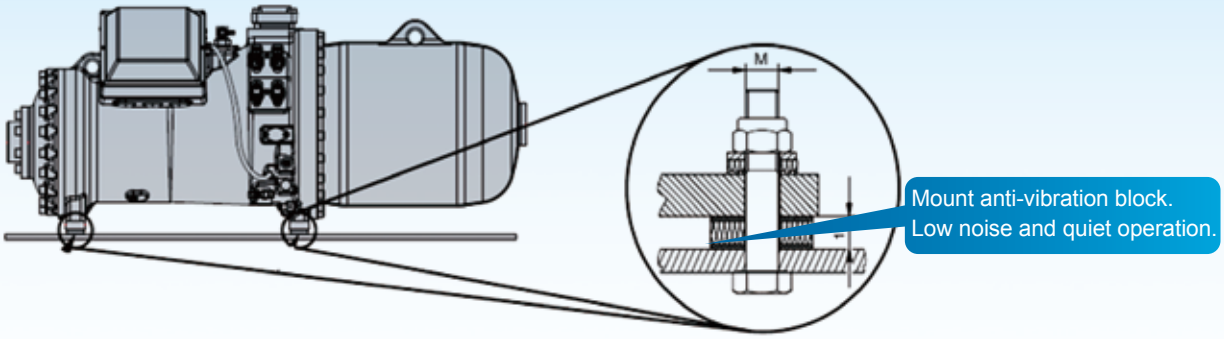
Each unit was extensively tested to verify that their operation is robust and that a smooth start-up is ensured.

- Serviceability low maintenance costs.

Be quiet, the best neighborhood

■ The larger dimension impeller,
the lower speed, then reduce noise.

■ The lower ambient temperature,
the lower fan air flow, then reduce noise.

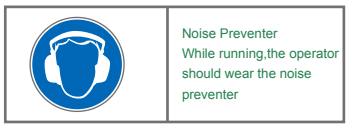


Specifications

LSBLGWXXX/C(T3)		380	500	600	760	900	1000	1200
Cooling capacity	kW	376	496	594	756	902	996	1203
Power input	kW	124	159	187	246	285	318	381
COP	kW/kW	3.03	3.12	3.17	3.07	3.16	3.13	3.157
Semi-hermetic screw compressor								
Circuit A	Quantity	1	1	1	1	1	1	1
Circuit B	Quantity	--	--	--	1	1	1	1
Oil recharge	Type	BSE170	BSE170	BSE170	BSE170	BSE170	BSE170	BSE170
Circuit A	L	30	30	30	30	30	30	30
Circuit B	L	--	--	--	--	30	30	30
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Circuit A	kg	76	90	105	76	76	90	105
Circuit B	kg	--	--	--	76	90	90	105
Control Type		EXV	EXV	EXV	EXV	EXV	EXV	EXV
Evaporator	Type	Shell-tube heat exchanger(DX)						
Water content	L	222	308	340	550	620	600	770
Water flow	m³/h	65.4	86	103.2	130.7	154.8	172	206.4
Pressure drop	kPa	39	54	56	75	74	75	71
Max. design pressure	MPa	1	1	1	1	1	1	1
Pipe connection type		Victaulic coupling						
Water inlet/outlet pipe dim.	mm	125	125	125	150	150	150	200
Condenser	Type	Fin-coil	Fin-coil	Fin-coil	Fin-coil	Fin-coil	Fin-coil	Fin-coil
Fan	Quantity	6	8	10	12	14	16	20
Total air flow	m³/h	23000*6	23000*8	23000*10	23000*12	23000*14	23000*16	23000*20
Fan speed	rpm	940	940	940	940	940	940	940
Unit length	mm	3810	4680	5800	7400	8800	9640	11700
Unit width	mm	2280	2280	2280	2280	2280	2280	2280
Unit height	mm	2370	2370	2370	2370	2430	2430	2430
Shipping weight	kg	3420	4460	5170	6630	7980	9160	9580
Running weight	kg	3640	4770	5510	7080	8600	9760	10350

Safety protection device	The following safity devices are equipped as standard. High pressure protection Low pressure protection Compressor overload protection Fans overload protection High discharge temp. protection Power failure protection Contactor protection Water flow protection Motor protection Low oil level protection Differential pressure protection

Notes:
1) Nominal cooling capacities are based on the following conditions:
Chilled water inlet/outlet temp: 12°C/7°C; Outdoor temp (DB/WB):35°C/24°C.
2) The applicable ambient temperature range of R134a air-cooled screw units is 15°C ~ 52°C, please refer to the technical manual for detailed performance table.
3)The factory keeps the right to improve the product and parameter without notice. Please refer to the actual parameter on the nameplate.
4) Caution: noise preventer required.



Optional accessories

No.	Name	Model	Introduction	Picture
1	Water flow switch	WFS-1001-H (Honeywell)	Installed on evaporator outlet pipe to prevent heat exchange pipe from frost crack.	
2	Vibration damper	MHD Series	To avoid vibration and noise, it must be used between base and foundation when install the unit.	
3	Remote control cabinet	YCKZ-P	Can be installed in the control room. Through the cable connected to the unit touch screen, it can display all states information andcomplete all the operations of unit (startup/shutdown, error confirm, etc.)	

Applicable range

Content	Running range
Ambient TEMP.	T1 Condition:15°C~52°C
Out water TEMP.	5°C~15°C
Max inlet/outlet water TEMP. difference	8°C
Voltage tolerance	Rating Voltage±10%
Power supply frequency	Rating frequency±2%
Compressor max. start count	4 times per hour
Environment quality	High corrosive environment and high humidity should be avoid.

Performance data

Unit Model	Leaving Water Temp(°C)	Ambient Temperture/°C																			
		15		20		25		30		35		40		43		46		49		52	
		Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)
LSBLGW380/C(T3)	5	418.0	93.0	397.3	101.4	380.6	108.1	362.3	115.7	349.8	120.8	324.3	129.6	310.1	134.9	294.1	140.3	278.7	145.6	263.2	151.0
	6	436.0	94.5	414.3	103.0	396.6	109.7	376.9	117.3	362.5	122.4	337.5	131.3	322.0	136.7	305.5	142.0	289.4	147.4	273.7	152.7
	7	453.9	96.0	431.3	104.5	412.6	111.3	392.0	119.0	376.0	124.0	350.6	133.0	334.5	138.4	317.7	143.7	301.1	149.1	284.6	154.4
	8	471.9	97.5	448.3	106.1	428.6	112.9	407.0	120.6	390.7	125.8	363.8	134.7	347.1	140.1	329.9	145.4	312.8	150.8	295.5	156.1
	9	489.8	99.0	465.3	107.6	444.7	114.5	422.1	122.3	404.8	127.5	376.9	136.4	359.7	141.8	342.2	147.2	324.5	152.5	306.4	157.9
	10	507.8	100.4	482.3	109.2	460.7	116.1	437.2	123.9	417.2	129.0	390.1	138.2	370.7	143.5	352.8	148.9	334.7	154.2	316.5	159.6
	11	525.8	101.9	499.3	110.7	476.7	117.7	452.2	125.6	433.1	131.0	403.2	139.9	384.9	145.2	366.6	150.6	347.9	155.9	328.2	161.3
	12	543.7	103.4	516.3	112.2	492.8	119.3	467.3	127.2	447.2	132.7	416.3	141.6	397.5	146.9	378.9	152.3	359.6	157.7	339.1	163.0
	13	561.7	104.9	533.3	113.8	508.8	120.9	482.3	128.9	461.3	134.4	429.5	143.3	410.0	148.7	391.1	154.0	371.3	159.4	350.7	164.7
	14	579.6	106.4	550.3	115.3	524.8	122.5	497.4	130.6	475.4	136.1	442.6	145.0	422.6	150.4	403.3	155.7	383.0	161.1	301.2	138.7
	15	597.6	107.9	567.3	116.9	540.8	124.1	512.5	132.2	490.5	138.0	455.8	146.7	436.0	152.1	416.5	157.4	395.6	162.8	312.3	140.0
LSBLGW500/C(T3)	5	527.4	120.7	504.5	131.3	489.1	139.4	470.0	148.9	461.8	154.7	431.7	166.2	413.1	173.2	391.7	180.3	372.2	187.3	352.7	194.4
	6	552.2	122.1	527.8	132.8	510.5	141.2	489.6	150.7	478.4	156.8	447.9	168.5	428.7	175.6	406.9	182.6	386.5	189.7	366.4	196.7
	7	576.9	123.4	551.1	134.3	532.3	143.0	509.9	152.7	496.0	159.0	465.3	170.9	445.4	177.9	423.1	185.0	401.8	192.0	380.9	199.1
	8	601.6	124.7	574.5	135.8	554.0	144.7	530.3	154.7	515.6	161.5	482.7	173.2	462.2	180.3	439.2	187.3	417.1	194.4	395.3	201.4
	9	626.3	126.0	597.8	137.3	575.8	146.5	550.6	156.7	534.3	163.8	500.1	175.5	478.9	182.6	455.4	189.6	432.4	196.7	409.8	203.7
	10	651.0	127.3	621.2	138.8	597.6	148.3	570.9	158.7	550.5	165.8	517.5	177.9	493.2	184.9	469.8	192.0	446.0	199.0	422.8	206.1
	11	675.7	128.7	644.5	140.3	619.4	150.0	591.2	160.7	571.5	168.5	535.0	180.2	512.4	187.3	487.8	194.3	463.0	201.4	438.8	208.4
	12	700.4	130.0	667.8	141.8	641.2	151.8	611.6	162.7	590.2	170.8	552.4	182.6	529.2	189.6	504.0	196.7	478.3	203.7	453.3	210.8
	13	725.0	131.3	691.2	143.3	663.0	153.6	631.9	164.7	608.8	173.2	569.8	184.9	545.9	192.0	520.1	199.0	493.6	206.1	467.7	213.1
	14	749.7	132.6	714.5	144.8	684.7	155.3	652.2	166.7	627.4	175.5	587.2	187.2	562.6	194.3	536.3	201.3	508.9	208.4	400.5	162.9
	15	774.3	133.9	737.9	146.4	706.9	157.1	673.3	168.8	647.5	178.0	605.9	189.6	580.6	196.6	553.5	203.7	525.2	210.7	414.6	164.5
LSBLGW600/C(T3)	5	634.0	133.6	609.2	147.7	591.0	159.7	569.4	172.7	557.4	182.6	526.4	195.6	507.2	203.5	489.2	211.3	469.7	217.2	449.5	227.1
	6	653.3	135.9	627.9	150.1	609.5	162.0	587.5	175.1	575.2	184.8	543.7	197.9	524.0	205.8	505.5	213.7	485.3	219.6	464.8	229.5
	7	674.0	138.5	647.9	152.8	629.3	164.6	606.9	177.6	594.0	187.0	562.2	200.3	541.8	208.2	523.1	216.1	502.1	222.0	480.4	231.9
	8	694.6	141.2	667.9	155.5	649.1	167.2	626.3	180.2	614.5	189.5	580.7	202.7	559.7	210.5	540.7	218.4	518.9	224.3	495.9	234.2
	9	715.3	143.8	687.9	158.2	668.9	169.8	645.7	182.8	634.1	191.9	599.3	205.0	577.5	212.9	558.2	220.8	535.6	226.7	511.5	236.6
	10	735.9	146.4	705.4	160.2	688.7	172.4	665.1	185.4	651.3	194.0	617.8	207.4	593.2	215.3	573.3	223.2	550.2	229.1	526.7	239.0
	11	756.6	149.1	727.9	163.5	708.5	175.0	684.4	188.0	673.4	196.6	636.3	209.8	613.2	217.6	593.4	225.5	569.2	231.4	543.0	241.3
	12	777.2	151.7	747.9	166.2	728.3	177.6	703.8	190.6	693.1	199.0	654.9	212.1	631.1	220.0	610.9	227.9	585.9	233.8	418.7	178.8
	13	797.9	154.3	767.9	168.9	748.1	180.2	723.2	193.1	712.8	201.3	673.4	214.5	648.9	222.4	628.5	230.3	602.7	236.2	433.9	180.5
	14	818.5	157.0	787.9	171.6	767.9	182.8	742.6	195.7	732.4	203.7	691.9	216.8	666.8	224.7	646.1	232.6	619.5	238.5	449.6	182.3
	15	840.6	159.9	809.2	174.6	789.0	185.4	763.2	198.5	753.5	206.2	711.7	219.2	685.7	227.1	665.0	235.0	637.4	240.9	465.5	184.0

Note: The inlet/outlet water temperature difference is 5℃.

Unit Model	Leaving Water Temp(°C)	Ambient Temperature/°C																			
		15		20		25		30		35		40		43		46		49		52	
		Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)	Cooling Capacity (kW)	Power Input (kW)
LSBLGW760/C(T3)	5	830.4	188.4	800.1	198.1	768.2	213.3	727.2	227.0	704.5	240.2	654.6	262.0	624.5	275.1	593.9	288.2	561.9	301.4	532.1	314.5
	6	859.3	192.6	829.6	201.9	796.9	216.7	757.1	230.2	730.2	243.0	678.6	264.8	647.6	277.7	615.8	290.6	584.4	303.5	552.6	316.3
	7	888.3	196.8	859.2	205.8	825.7	220.5	787.0	233.4	756.0	246.0	704.5	267.5	672.4	280.2	639.5	292.9	606.9	305.5	573.8	318.2
	8	917.3	201.0	888.7	209.6	854.5	224.3	816.9	236.7	785.7	249.3	730.4	270.2	697.1	282.7	663.1	295.2	629.4	307.6	595.0	320.1
	9	946.2	205.2	918.3	213.5	883.3	228.0	846.8	239.9	813.4	252.5	756.3	273.0	721.9	285.2	686.8	297.5	652.0	309.7	616.1	321.9
	10	975.2	209.5	947.8	217.4	912.1	231.1	876.7	243.1	837.4	255.1	778.6	275.7	743.4	287.7	707.2	299.8	674.5	311.8	635.8	323.8
	11	1004.2	213.7	977.4	221.2	940.9	235.6	906.6	246.3	869.0	258.7	808.1	278.5	771.5	290.3	734.0	302.1	697.0	313.9	658.5	325.7
	12	1033.1	217.9	1006.9	225.1	969.7	239.4	936.5	249.6	896.7	261.9	834.0	281.2	796.3	292.8	757.7	304.4	719.6	316.0	679.6	327.5
	13	1062.1	222.1	1036.5	228.9	998.5	243.2	966.4	252.8	924.5	265.0	859.9	284.0	821.0	295.3	781.3	306.7	742.1	318.0	701.9	329.4
	14	1091.1	226.3	1066.0	232.8	1027.3	247.0	996.3	256.0	952.2	268.2	885.8	286.7	845.8	297.8	805.0	309.0	764.6	320.1	606.1	277.7
	15	1120.1	230.5	1095.6	236.6	1056.1	251.1	1026.2	259.2	982.1	271.6	913.6	289.4	872.4	300.4	830.4	311.3	787.2	322.2	627.7	280.3
LSBLGW900/C(T3)	5	900.8	222.9	886.6	235.5	864.6	249.9	842.4	267.1	820.0	277.7	778.6	297.5	743.9	309.7	711.5	321.8	675.6	334.0	638.9	346.1
	6	936.7	225.7	921.0	236.9	900.8	252.9	878.5	270.2	854.0	281.2	808.0	301.5	771.9	313.6	737.7	325.8	700.6	337.9	663.4	350.1
	7	976.6	227.8	959.6	239.5	938.2	256.0	914.6	273.6	902.0	285.0	837.3	305.4	800.0	317.6	766.0	329.7	727.5	341.9	688.6	354.0
	8	1016.5	229.8	998.2	242.2	975.6	259.1	950.6	277.0	921.9	289.1	866.7	309.4	828.1	321.5	794.3	333.7	754.5	345.8	713.8	358.0
	9	1056.4	231.9	1036.8	244.8	1013.1	262.2	986.7	280.5	955.8	293.1	896.0	313.3	856.1	325.5	822.6	337.7	781.5	349.8	738.9	362.0
	10	1096.3	234.6	1075.4	247.5	1050.5	265.2	1022.8	283.9	989.8	297.1	925.4	317.3	884.2	329.5	847.3	341.6	804.7	353.8	762.4	365.9
	11	1136.2	237.2	1114.0	250.2	1087.9	268.3	1058.9	287.3	1023.8	301.0	954.8	321.3	912.3	333.4	879.1	345.6	835.4	357.7	789.4	369.9
	12	1176.1	239.5	1152.6	252.8	1125.4	271.4	1095.0	290.7	1057.7	305.0	984.1	325.2	940.3	337.4	907.4	349.5	862.3	361.7	814.5	373.8
	13	1216.0	241.7	1191.2	255.5	1162.8	274.4	1131.0	294.1	1091.7	308.9	1013.5	329.2	968.4	341.3	935.7	353.5	889.3	365.6	840.8	377.8
	14	1255.9	243.6	1229.8	258.1	1200.2	277.5	1167.1	297.6	1125.6	312.9	1042.8	333.1	996.5	345.3	964.0	357.5	916.2	369.6	723.8	301.6
	15	1295.8	246.2	1268.4	262.1	1237.7	280.6	1203.2	301.3	1159.6	317.2	1072.2	337.1	1024.6	349.3	994.4	361.4	945.1	373.6	748.7	304.5
LSBLGW1000/C(T3)	5	1047.0	244.0	1002.7	264.9	975.8	280.5	940.2	298.8	929.6	309.6	869.0	332.8	831.3	347.1	788.7	361.3	749.4	375.5	710.2	389.8
	6	1107.1	246.2	1058.0	267.4	1024.5	283.6	983.2	302.4	961.8	313.7	900.6	337.4	861.2	351.6	817.9	365.9	777.4	380.1	737.1	394.3
	7	1156.0	248.3	1104.1	269.9	1067.2	286.8	1022.8	306.1	996.0	318.0	934.0	341.9	893.4	356.2	849.1	370.4	807.3	384.7	764.9	398.9
	8	1204.9	250.3	1150.3	272.4	1110.0	290.0	1062.5	309.8	1033.4	322.8	967.5	346.5	925.5	360.7	880.3	375.0	837.2	389.2	792.7	403.4
	9	1253.8	252.4	1196.4	274.9	1152.7	293.1	1102.1	313.5	1069.2	327.3	1001.0	351.0	957.7	365.3	911.5	379.5	867.1	393.8	820.6	408.0
	10	1302.8	254.5	1242.5	277.5	1195.5	296.3	1141.8	317.2	1105.0	331.9	1034.4	355.6	985.3	369.8	939.2	384.1	893.2	398.3	846.1	412.5
	11	1351.7	256.6	1288.6	280.0	1238.2	299.5	1181.4	320.9	1140.9	336.4	1067.9	360.1	1022.0	374.4	973.9	388.6	926.9	402.9	876.2	417.1
	12	1400.6	258.7	1334.8	282.5	1280.9	302.6	1221.1	324.6	1176.7	341.0	1101.4	364.7	1054.1	378.9	1005.1	393.2	956.8	407.4	904.1	421.6
	13	1449.6	260.8	1380.9	285.0	1323.7	305.8	1260.7	328.3	1212.5	345.5	1134.8	369.3	1086.3	383.5	1036.3	397.7	986.7	412.0	933.5	426.2
	14	1498.5	262.9	1427.0	287.5	1366.4	308.9	1300.4	331.9	1248.3	350.1	1168.3	373.8	1118.4	388.0	1067.5	402.3	1016.6	416.5	799.8	324.2
	15	1536.3	264.9	1464.0	290.1	1403.2	312.1	1336.7	335.8	1286.7	355.0	1203.6	378.4	1152.8	392.6	1100.6	406.8	1048.5	421.1	827.7	327.6
LSBLGW1200/C(T3)	5	1277.2	273.6	1250.4	295.2	1215.2	315.1	1180.0	340.7	1123.3	372.1	1063.8	396.4	1025.8	411.2	987.0	425.9	946.8	439.2	906.9	455.5
	6	1317.6	277.9	1290.9	299.4	1256.1	319.3	1218.7	344.4	1160.0	376.2	1098.8	400.9	1059.5	415.7	1019.6	430.5	978.0	443.4	937.7	460.0
	7	1360.1	282.6	1331.4	303.6	1297.0	323.5	1260.5	348.5	1203.0	381.0	1136.6	405.4	1095.9	420.2	1054.8	435.0	1011.7	447.7	968.7	464.5
	8	1402.5	287.4	1371.8	307.8	1338.0	327.8	1302.2	352.5	1239.7	385.3	1174.4	409.9	1132.3	424.7	1090.0	439.5	1045.4	451.9	999.6	469.0
	9	1445.0	292.2	1412.3	312.0	1378.9	332.0	1344.0	356.6	1279.5	389.8	1212.3	414.4	1168.8	429.2	1125.2	444.0	1079.0	456.1	1030.6	473.6
	10	1483.5	295.9	1452.8	316.2	1419.8	336.2	1379.8	360.1	1313.4	393.9	1244.6	419.0	1200.1	433.7	1155.6	448.5	1108.1	460.3	1061.6	478.1
	11	1529.8	301.7	1493.3	320.4	1460.7	340.5	1427.6	364.7	1359.3	398.9	1287.9	423.5	1241.6	438.3	1195.6	453.0	1146.4	464.8	1092.9	482.6
	12	1572.3	306.5	1533.8	324.6	1501.6	344.7	1469.4	368.7	1399.1	403.4	1325.8	428.0	1278.1	442.8	1230.8	457.6	1180.0	468.7	823.0	357.5
	13	1614.7	311.3	1574.2	328.8	1542.6	348.9	1511.1	372.7	1439.0	407.9	1363.6	432.5	1314.5	447.3	1266.0	462.1	1213.7	473.0	853.1	360.8
	14	1657.2	316.1	1614.7	333.0	1583.5	353.2	1552.9	376.8	1478.8	412.4	1401.4	437.0	1350.9	451.8	1301.2	466.6	1247.4	477.2	883.6	364.3
	15	1701.7	321.4	1655.2	337.2	1624.4	357.4	1597.8	381.1	1522.0	417.3	1442.1	441.5	1390.2	456.3	1339.1	471.1	1283.6	481.4	914.9	367.7

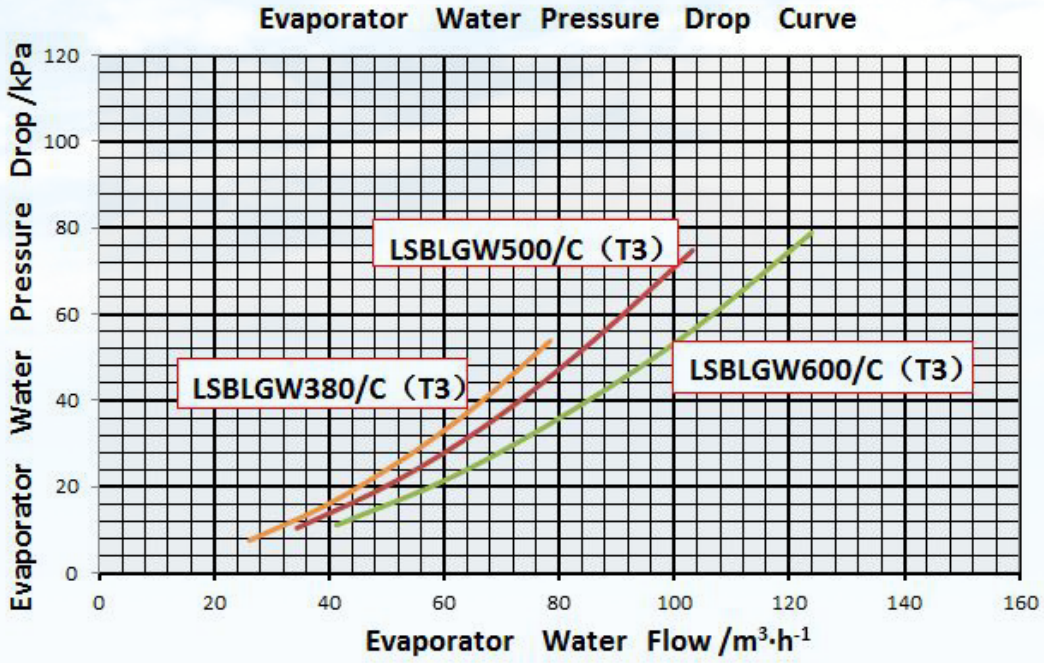
Note: The inlet/outlet water temperature difference is 5℃.

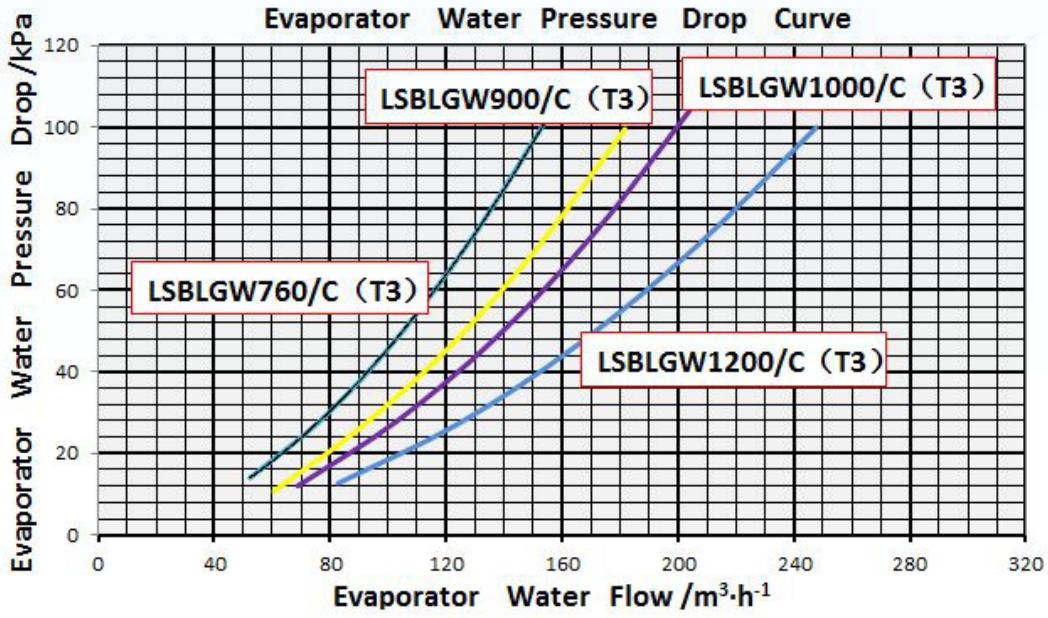
Electrical data

LSBLGWXXX/C(T3)		380	500	600	760	900	1000	1200
Standard voltage	V	380V 3Ph 50Hz						
Voltage range	V	340~420						
Max. running current	A	287	368	412	574	655	736	824
Max. power consumption	kW	124	159	187	246	285	318	381
Rated current	A	212	271	319	424	483	542	638
Compressor A								
Locked rotor Amps.	A	586	805	805	586	586	805	805
Max. allowed current	A	370	450	450	370	370	450	450
Rated current	A	187	239	278	187	187	239	278
Rated power	kW	109.6	139.8	163	109.6	109.6	139.8	163
Compressor B								
Locked rotor Amps.	A	--	--	--	586	805	805	805
Max. allowed current	A	--	--	--	370	450	450	450
Rated current	A	--	--	--	187	239	239	278
Rated power	kW	--	--	--	109.6	139.8	139.8	163
Fan								
Full load Amps.(each)	A	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Power input(each)	kW	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Total input	kW	14.4	19.2	24	28.8	33.6	38.4	48
Crankcase heater								
Voltage	V	220	220	220	220	220	220	220
Total input	kW	0.3	0.3	0.3	0.6	0.6	0.6	0.6
Total Amps.	A	1.36	1.36	1.36	2.72	1.36	2.72	2.72

"NOTE:
1.Customer to specify the exact nominal power supply available at site so that electrical components are selected accurately.
2.Main power must be supplied from a single field supplied and mounted fused circuit breaker.
3.The compressor crankcase heaters must be energized for hours before the unit is initially started or after a prolonged power disconnection.
4.All field wiring must be in accordance with local standards.
5.Neutral line required on 380V-3Ph-50Hz(5 wires) power supply.
6.Rated load Amps values are on nominal conditions.
7.The ±10% voltage variation from the nominal is allowed for a short time only,not permanent."

Water pressure drop



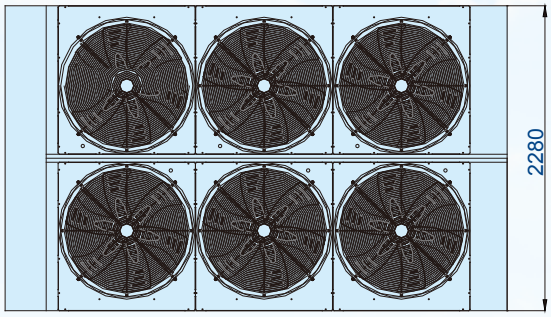


Unit Model	Min. Flow Rate		Max. Flow Rate	
	m³/h	GPM	m³/h	GPM
LSBLGW380/C(T3)	53	233	79	348
LSBLGW500/C(T3)	69	304	104	458
LSBLGW600/C(T3)	83	365	124	546
LSBLGW760/C(T3)	105	462	157	691
LSBLGW900/C(T3)	124	546	186	819
LSBLGW1000/C(T3)	138	608	207	912
LSBLGW1200/C(T3)	165	727	248	1092

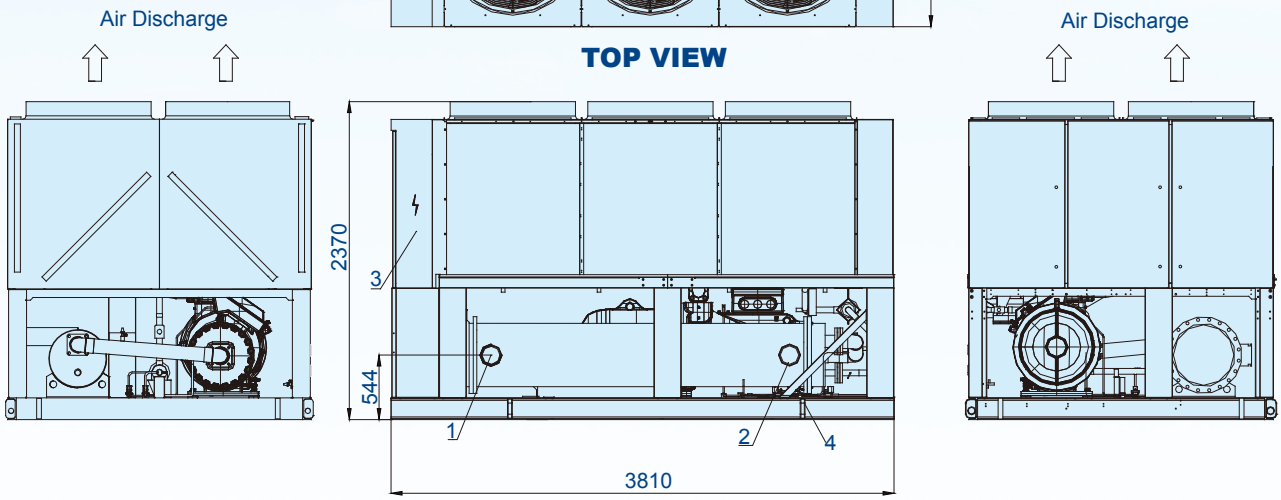
Dimensions

LSBLGW380/C(T3)

①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS



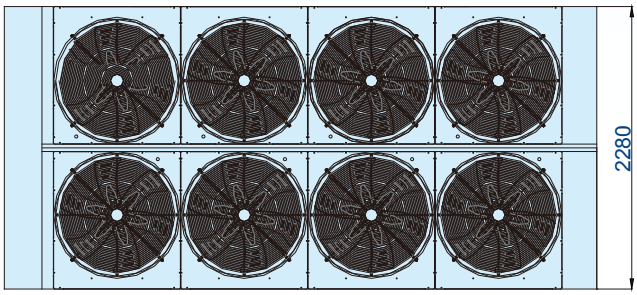
TOP VIEW



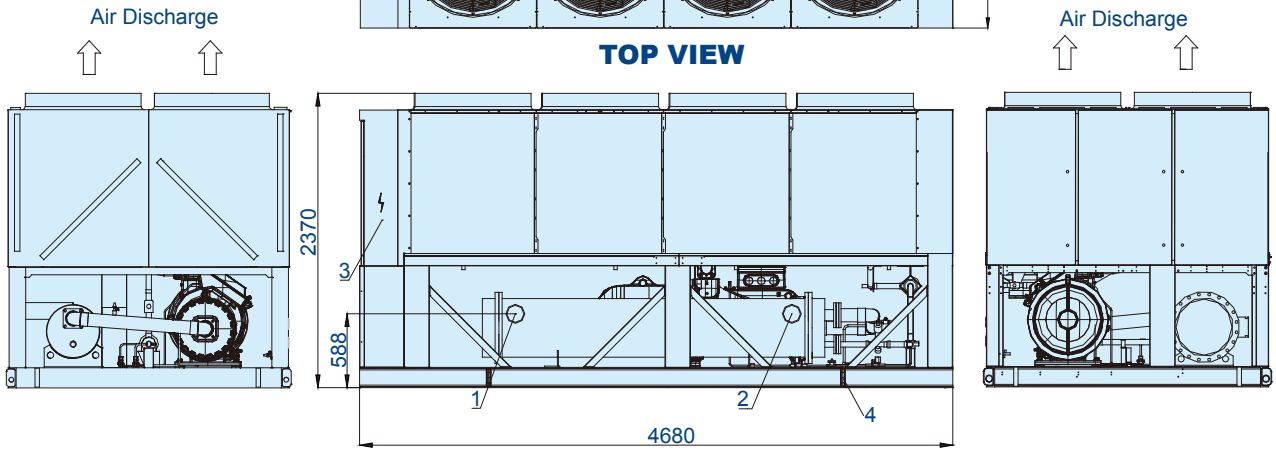
LEFT VIEW　　FRONT VIEW　　RIGHT VIEW

LSBLGW500/C(T3)

①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS



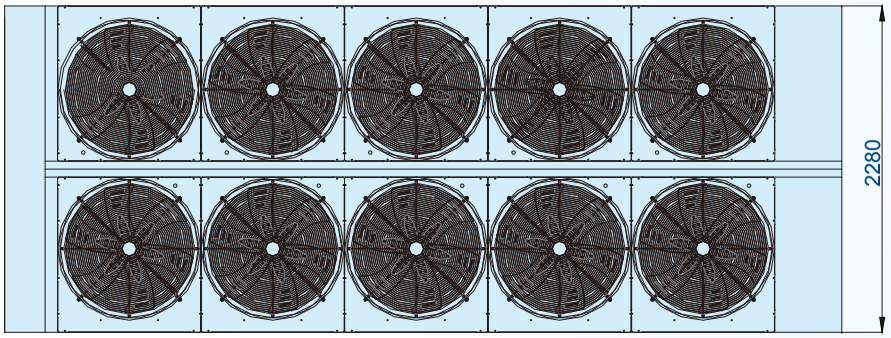
TOP VIEW



LEFT VIEW　　FRONT VIEW　　RIGHT VIEW

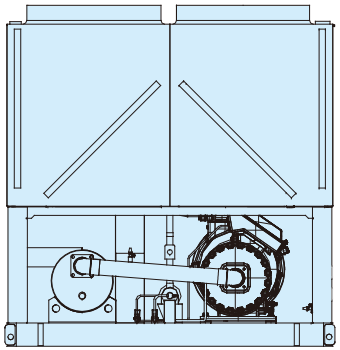
①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS

LSBLGW600/C(T3)

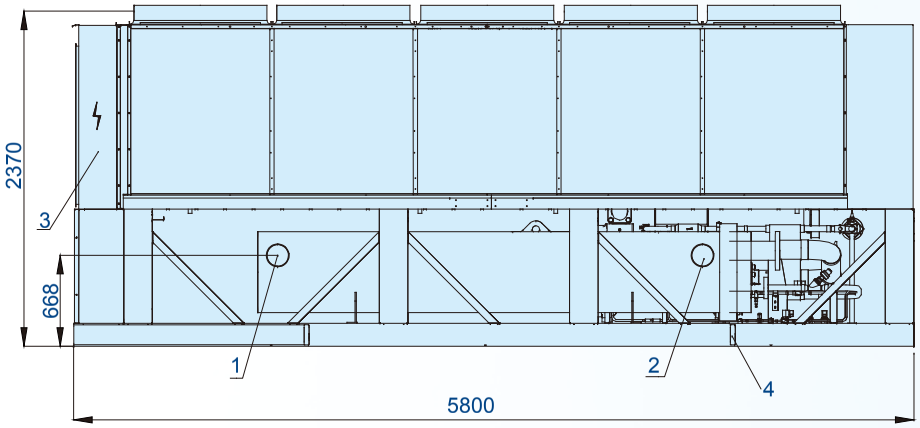


TOP VIEW

Air Discharge

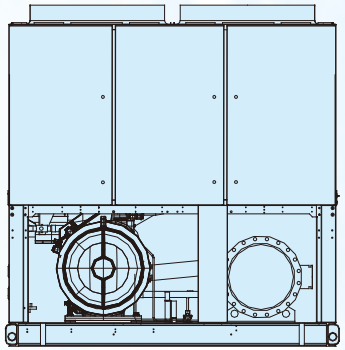


LEFT VIEW



FRONT VIEW

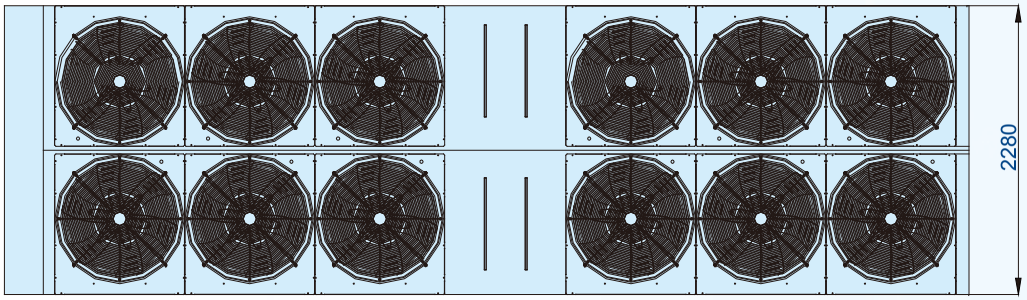
Air Discharge



RIGHT VIEW

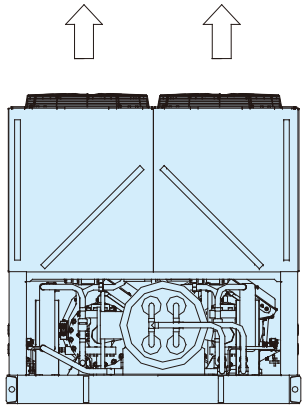
LSBLGW760/C(T3)

①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS

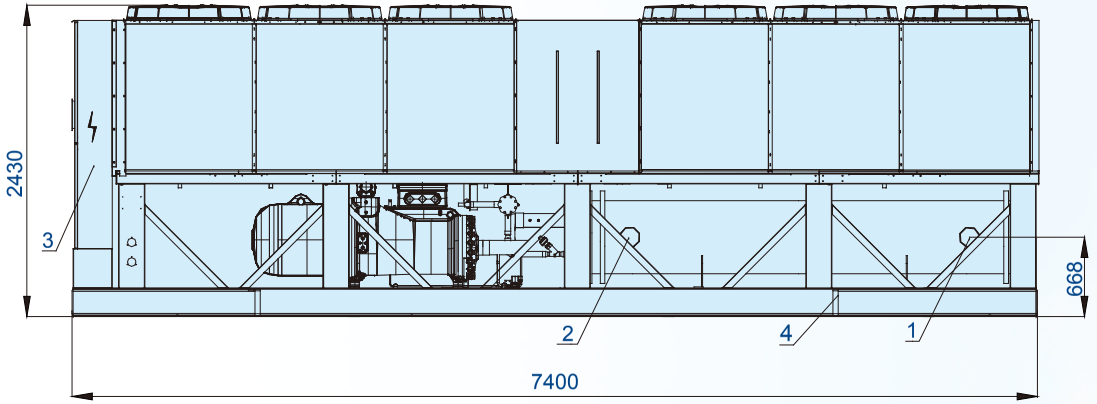


TOP VIEW

Air Discharge

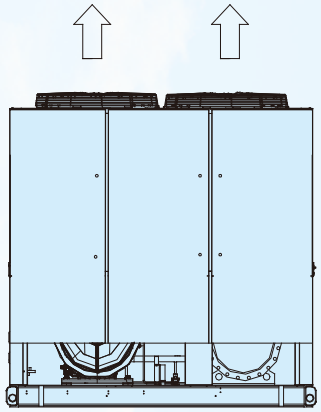


LEFT VIEW



FRONT VIEW

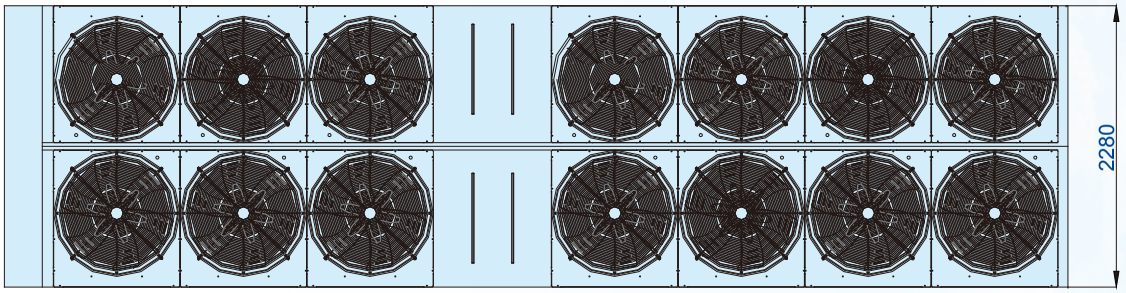
Air Discharge



RIGHT VIEW

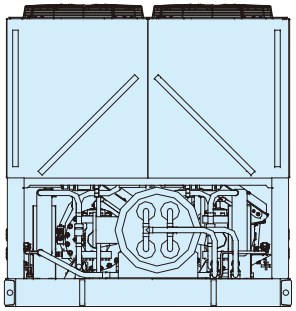
LSBLGW900/C(T3)

①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS

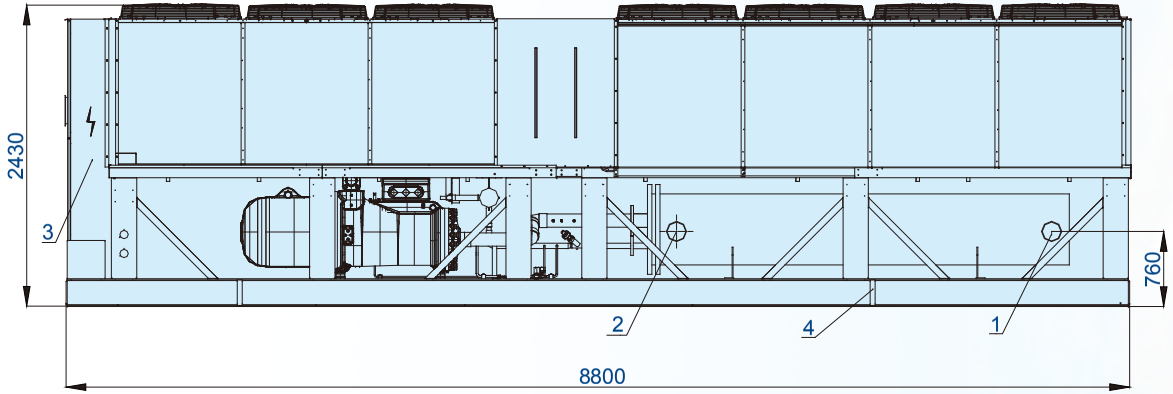


TOP VIEW

Air Discharge

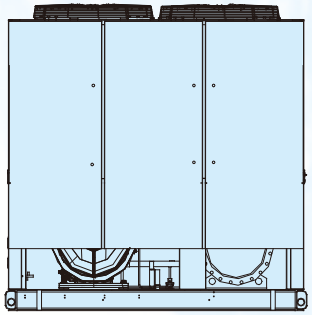


LEFT VIEW



FRONT VIEW

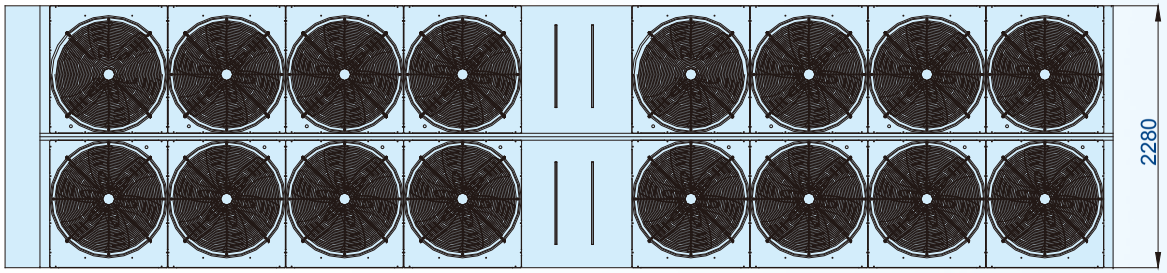
Air Discharge



RIGHT VIEW

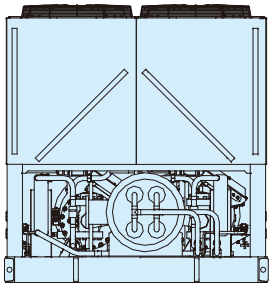
LSBLGW1000/C(T3)

①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS

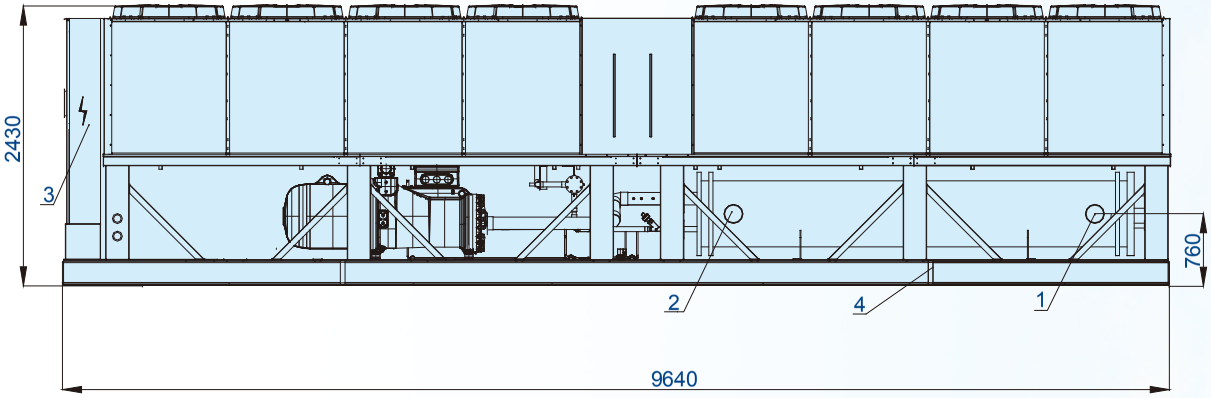


TOP VIEW

Air Discharge

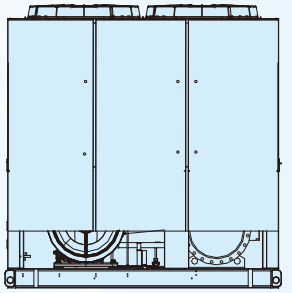


LEFT VIEW



FRONT VIEW

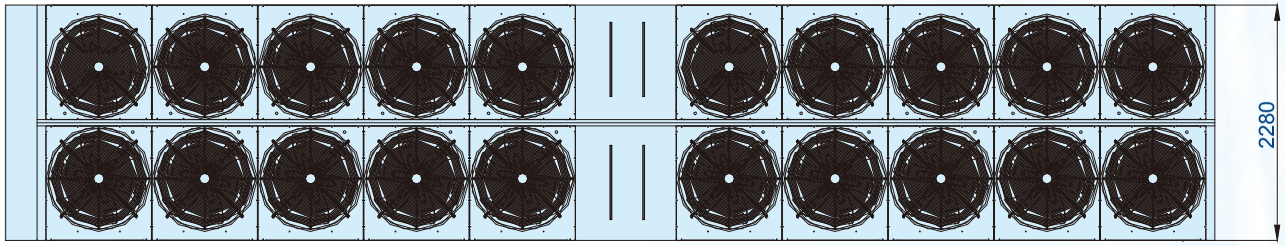
Air Discharge



RIGHT VIEW

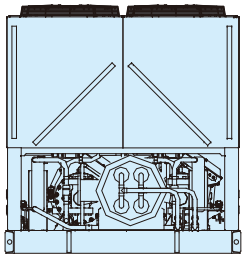
LSBLGW1200/C(T3)

①CHILLED WATER OUTLET
②CHILLED WATER INLET
③ELECTRICAL CONTROL BOX
④LIFTING POINTS

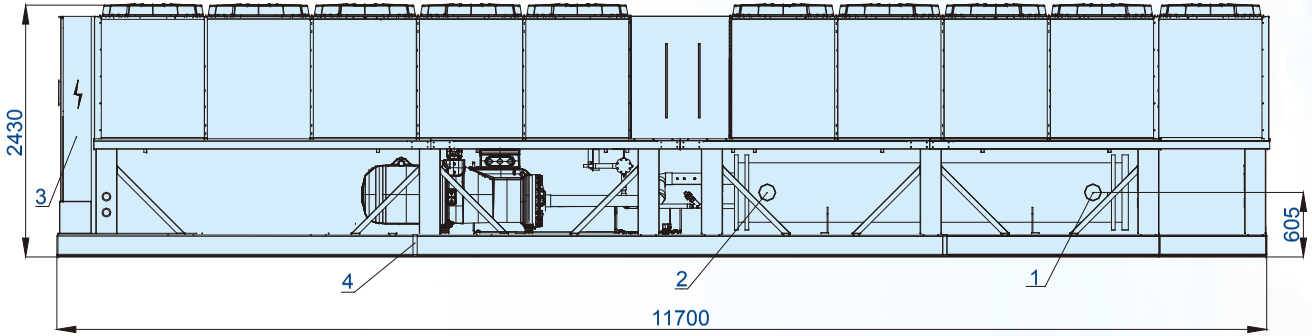


TOP VIEW

Air Discharge

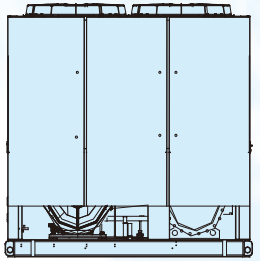


LEFT VIEW



FRONT VIEW

Air Discharge



RIGHT VIEW

Rigging instructions

Attention to riggers:

Hooking rigging sling thru holes in base rail, as shown below.

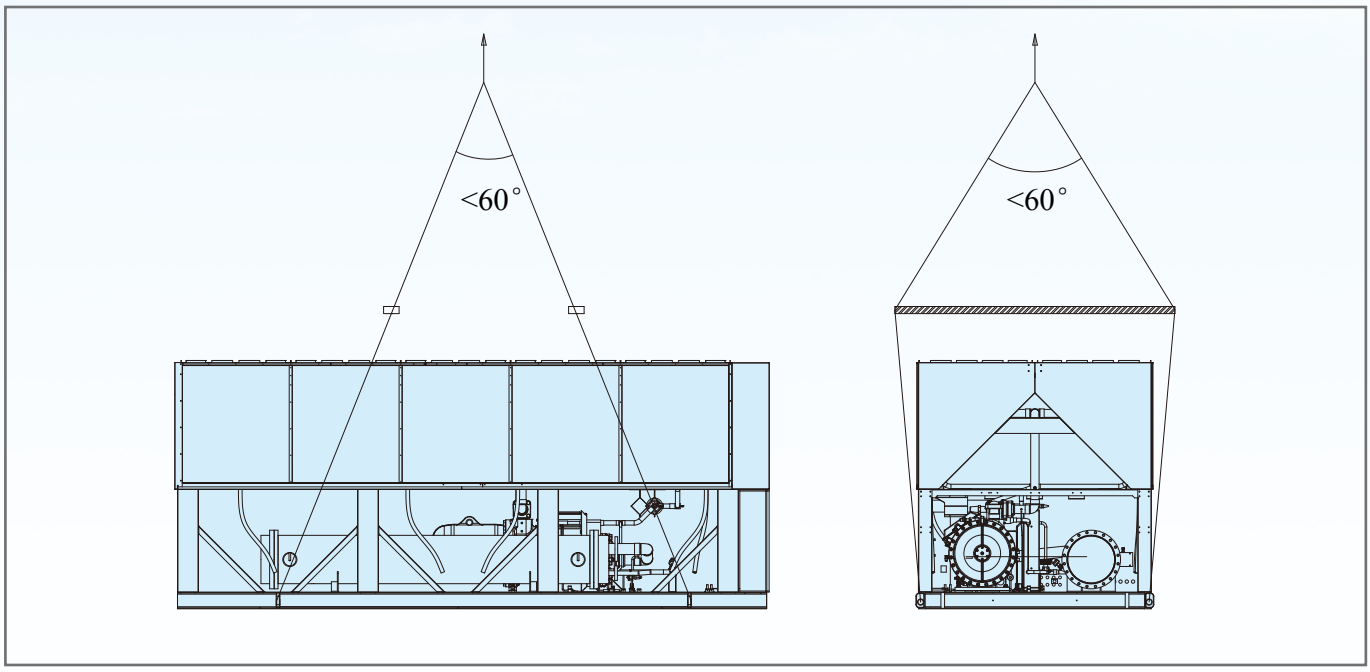
Center of gravity is not unit center line. Ensure center of gravity aligns with the main lifting point before lifting.

Use spreader bar when rigging, to prevent the slings from damaging the unit.

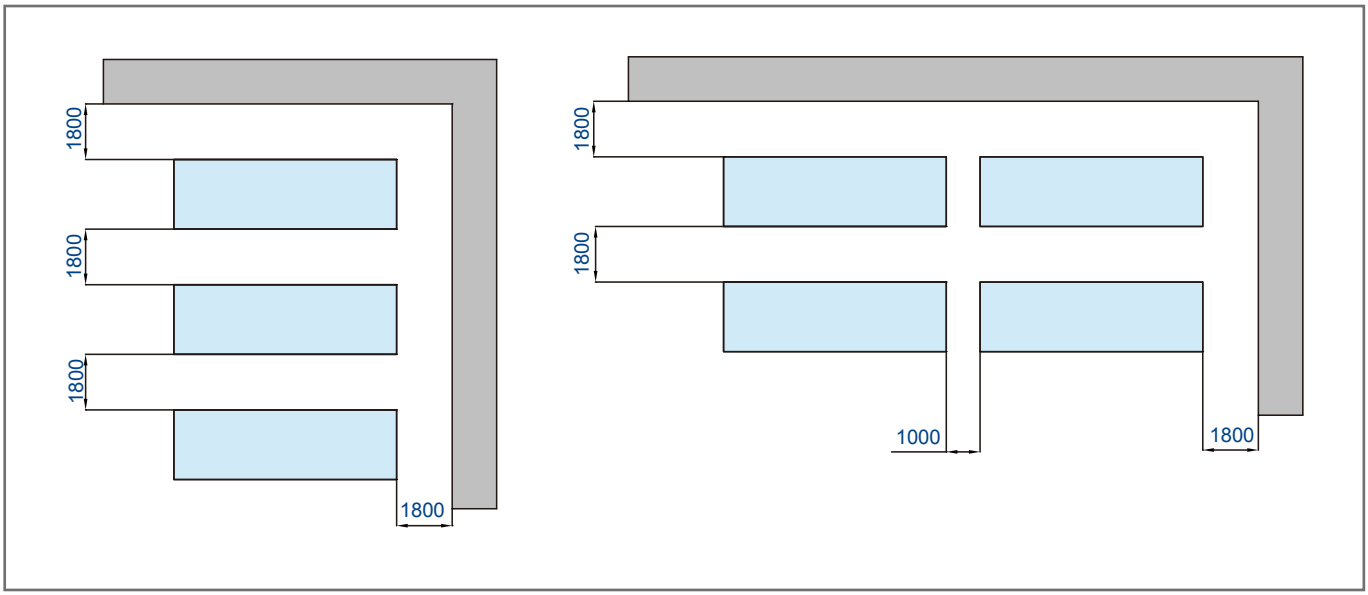
Caution:

All panels should be in place when rigging. Care must be taken to avoid damage to the coils during handing.

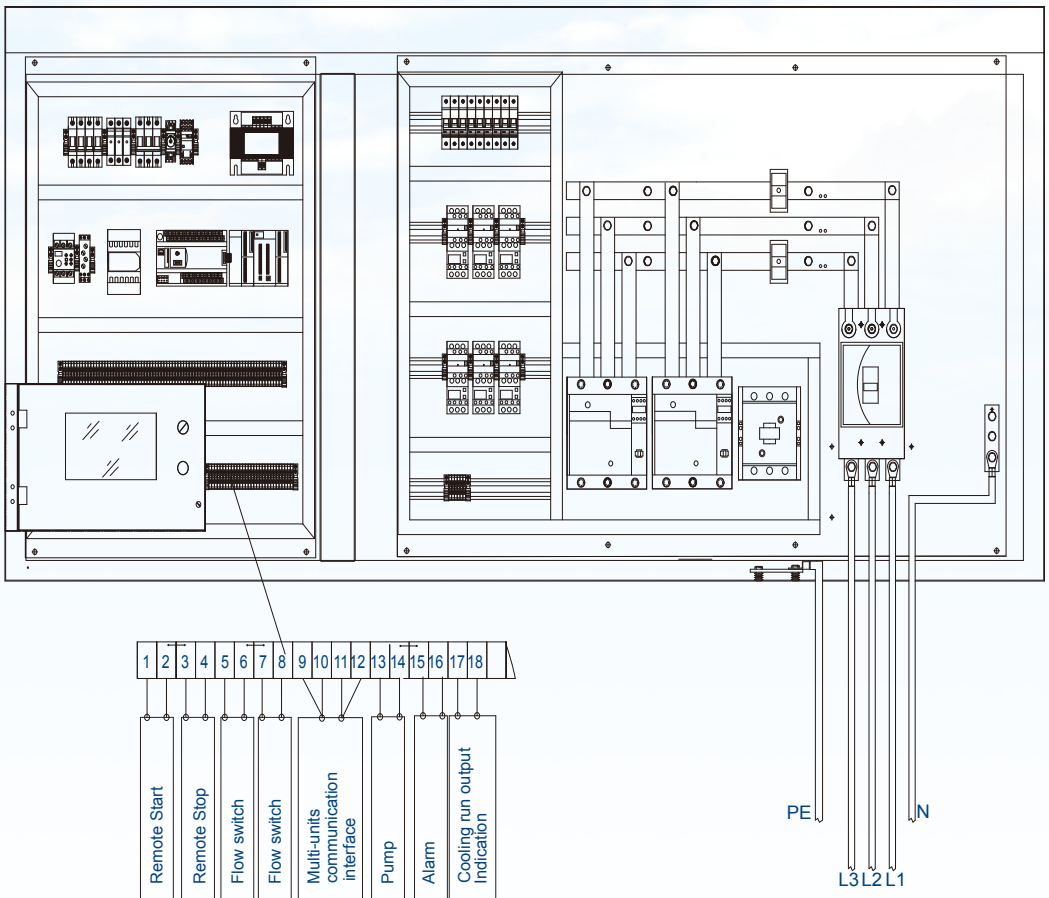
Insert packing material between coils & slings as necessary.



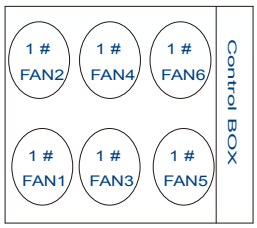
Installation clearance



Typical schematic wiring diagram



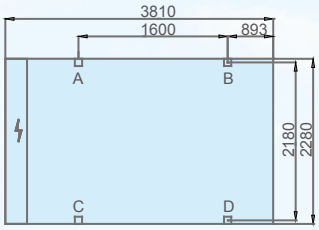
FAN NUMBER



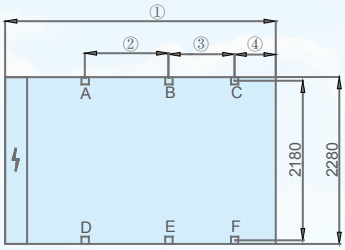
TA1 TA2	Current Transformer	SQ3 SQ4	Protection Switch	SQ2	Anti-Freeze Switch
1QF	Moulded Case Circuit Breaker	SL1	Oil Level Switch	KA1	Intermediate Relay
QF1 QF2 QF3	Air Switch	RTD1~RTD5 NTC6	Temperature Sensor	EXV	Electrical Expansion Valve
FU1 FU2 FU3	Fuse	YV1~YV8	Solenoid Valve	2QF 3QF 4QF 5QF 6QF	Miniature Circuit Breaker
KR1	Power Protection Module	SP1 SP2 SP3	Pressure Switch	A10	Power of Electrical Expansion Valve
KM11 KM12 KM13	Compressor Contactor	TP1 TP2	Pressure Transducer	SA	Key Switch
FR FR1~FR10	Overload Relay	A1	CPU Module of PLC		
M	Motor	A2	Extended Adaptor of PLC		
KT1	Time Relay	A3	Extended Output Module of PLC		
KM1~KM10	Fan Contactor	A6	Temperature Module of PLC		
T1	Isolation Transformer	A7	Analog Singles Mixed Module of PLC		
SB	Emergency Stop	A9	Switch Power		
EH1 EH2	Compressor Heater	A8	Electrical Expansion Valve Module		
SQ1	Water Flow Switch	HMI	Touch Screen		

Mounting location

LSBLGW380/C(T3)

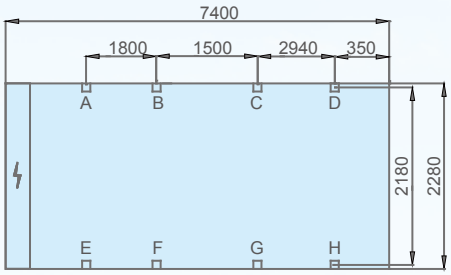


LSBLGW500(600)/C(T3)

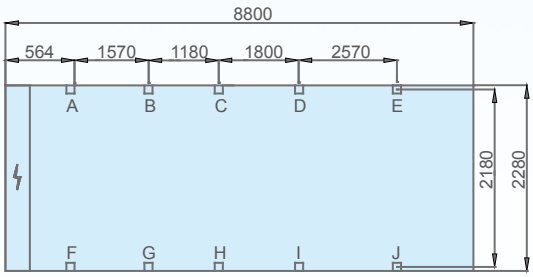


MODEL	500/C	600/C
①	4680	5800
②	2070	2000
③	1630	1500
④	530	1000

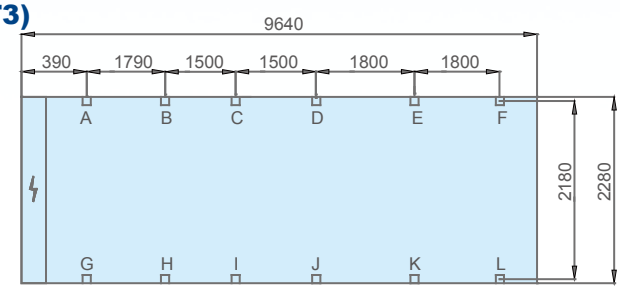
LSBLGW760/C(T3)



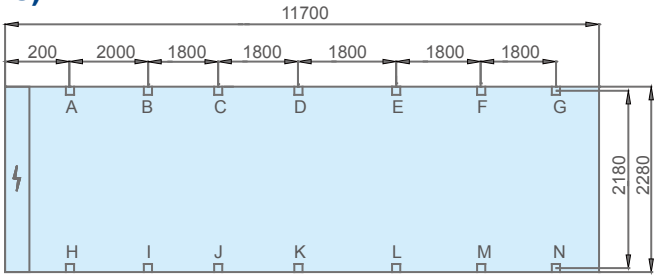
LSBLGW900/C(T3)



LSBLGW1000/C(T3)



LSBLGW1200/C(T3)

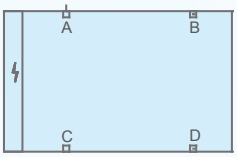


Note: All dimensions are in mm

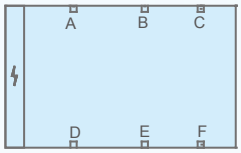
Load distribution

Unit:KG

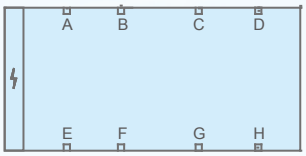
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
LSBLGW380/C(T3)	894	926	894	926	-	-	-	-	-	-	-	-	-	-
LSBLGW500/C(T3)	656	876	853	656	876	853	-	-	-	-	-	-	-	-
LSBLGW600/C(T3)	890	939	926	890	939	926	-	-	-	-	-	-	-	-
LSBLGW760/C(T3)	894	951	846	849	894	951	846	849	-	-	-	-	-	-
LSBLGW900/C(T3)	837	957	960	780	766	837	957	960	780	766	-	-	-	-
LSBLGW1000/C(T3)	761	923	933	758	752	753	761	923	933	758	752	753	-	-
LSBLGW1200/C(T3)	710	764	791	775	713	711	711	710	764	791	775	713	711	711



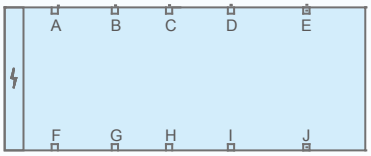
LSBLGW380/C(T3)



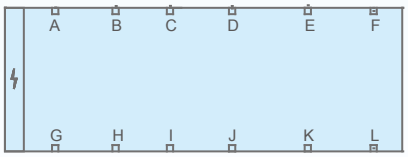
LSBLGW500(600)/C(T3)



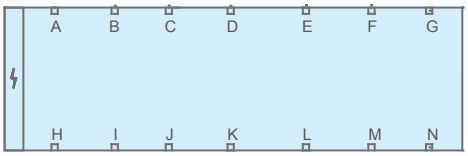
LSBLGW760/C(T3)



LSBLGW900/C(T3)



LSBLGW1000/C(T3)



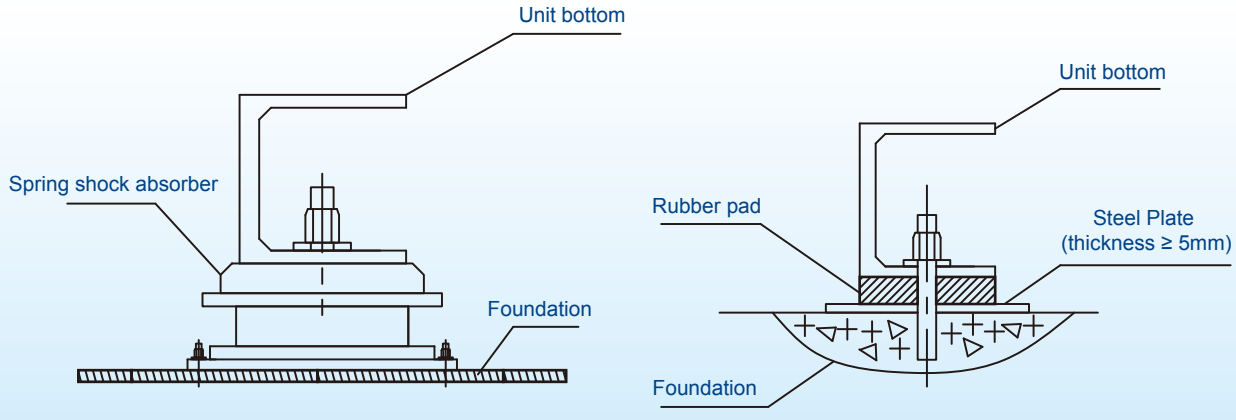
LSBLGW1200/C(T3)

Installation requirements:

■1. Be sure to take the base preparation and structure into consideration seriously during installation,especially avoid the intensity and noise of floor when the machine is installed on the top stoery ofbuildings. It is recom mended to discuss with the building designer before conducting installation.

■2. The surrounding of the base shall be equipped with drainage ditch and make sure it can dewatering freely for convenient in drain.

■3. Anti-vibration pad shall be placed between the base frame and fundation in order to avoid transmitting vibration and noise during the runtime of the unit, and make sure the unit is aclinic during installation.



1503-4C1412

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for environmental management.
Certificate No.15912E10020R0L

GD Midea Heating & Ventilating Equipment Co., Ltd.
Is certified under the ISO 9001 International standard
for quality assurance.
NO.01 100 019209

GD Midea Heating & Ventilating Equipment Co., Ltd.
Certificate of Occupational Health and Safety Management System
Certificate No. 15912S20006R0L-1.

Dealer information

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http://www.midea.com

Note: The data in this book may be changed without notice for further improvement on quality and performance.

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