With the electric controlbox, the effective distance can reach 200 meters
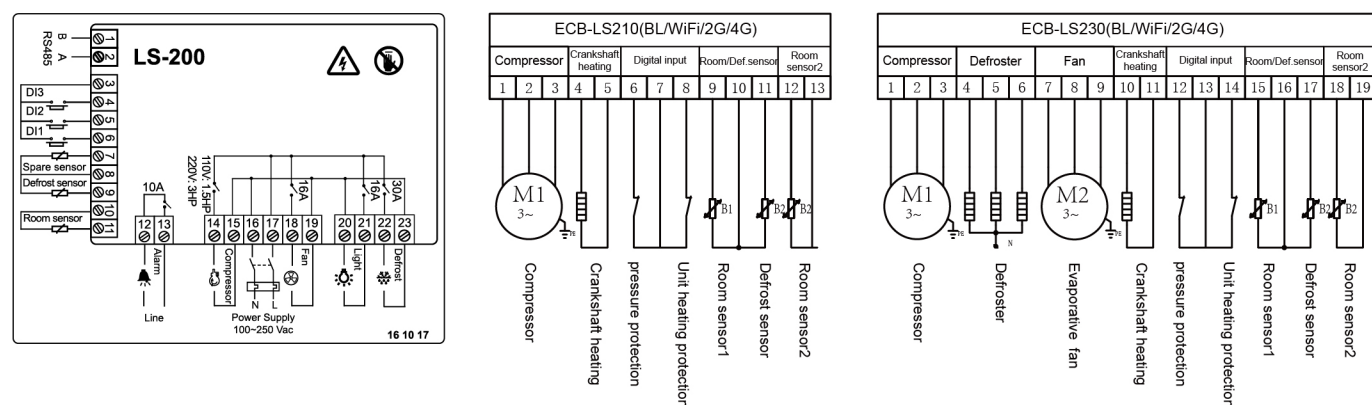
Features

- Beautiful design subverts tradition.
- With the electric control box, the effective distance can reach 200 meters.
- Large panel LED screen, clear and intuitive, touch buttons.
- The control panel is separated from the electric control box and can be installed arbitrarily within 200 meters to easily reach the district city.
- The installation of the electric control box and the unit nearby greatly saves power lines and wiring costs.
- Separation of strong and weak electricity makes the controller far win the traditional strong electricity working environment, safer.
- Bluetooth, Wifi , 2G , 4G, multiple network connection mobile phone control, remote monitoring.
- Siemens Certified Partner of Electronic Control System for Freezing and Refrigeration Industry.

Wiring Diagram

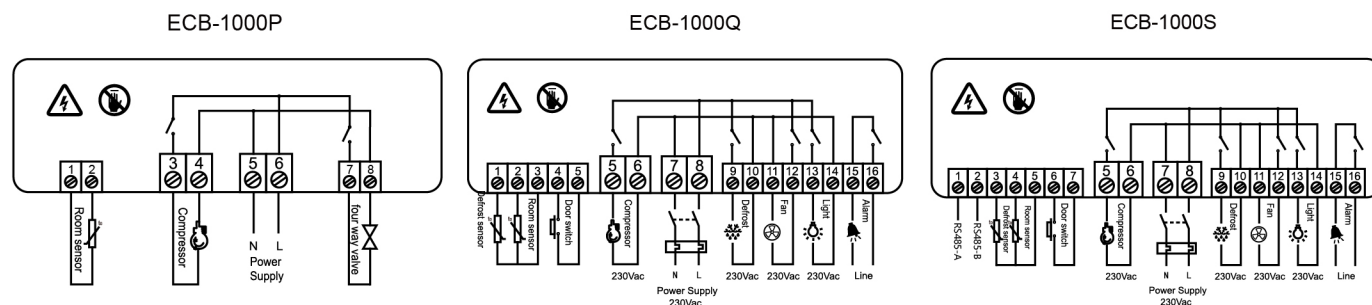| One Machine for One Storage		Split Type Electric Control System Specification		
Overview	Description	ECB-LS200(BL/WiFi/2G/4G)	ECB-LS210(BL/WiFi/2G/4G)	ECB-LS230(BL/WiFi/2G/4G)
	Control load	Compressor, defroster, air cooler	Compressor	Compressor, defroster, air cooler
Unit	Supply voltage	220VAC±10% 50/60HZ	3-phase 5-wire or 3-phase 4-wire 380VAC±10% 50/60HZ	
	Applicable compressor type	Piston compressors and scroll compressors	Piston compressors and scroll compressors	
	Applicable compressor power	3HP	5HP, 10HP, 15HP	
	Compressor contactor size	3HP	18A(5HP),25A(10HP),32A(15HP)	
	Compressor start mode	Direct start	Direct start	Direct start
	Condenser type	Air cooled	Air cooled	Air cooled
Storehouse	Cold storage type	Calandria/Fan cold storage	Calandria cold storage	Fan cold storage
	Defrost mode	Electric	Defrost-free	Electric
Temperature control	Thermostat model	LS-200	LS-300	LS-300
	Control range	-40℃～119℃		
	Control accuracy	±1℃		
	Display resolution	0.1℃		
	Temperature sensor type	NTC (10KΩ/25℃, B value 3435K) (5HP product defrost sensor length 5m, other products 8m)		
	Number of temperature sensors	Three lines of temperature sensors (two for storage temperature, and one for defrost temperature)		
	Compressor protection output delay	1～120 min, adjustable		
	Defrost start mode	Cyclic defrost and clock defrost, optional		
	External signal protection input:	Two lines of external signal input		
Protection	Motor protector	The thermostat is self-contained (with phase missing, phase sequence, overload, three-phase unbalance and inverse time limit protection functions, among others)		
	Current measuring range	0～80A		
	Current measuring accuracy	±3% (within nominal range of the transformer) and ±2A (0～30A)		
	Current display resolution:	1A		
Body	5-15HP dimensions (W*H*D)	261x167.5x95mm	260*320*135mm	260*320*135mm
	Color	White	Orange door and blue body	Orange door and blue body
Networking	Remote monitoring	Bluetooth/WiFi/2G/4G		
	Networking module	RCW-3		
Others	Service environment	Temperature:-10℃～60℃; Humidity: 20%～90%RH, condensation prevention; Designed to be placed in a ventilated and dry environment away from heat sources and direct sunlight		

ECB-1000P
ECB-1000Q
ECB-1000S

Features

- Multiple functions: refrigeration，defrost，fan，alarm and light.
- Compact clamshell with ABS flame retardant material.
- Waterproof,dustproof,quakeproof.
- High/Low temperature alarm,sensor fault alarm.
- Manual on/off;real-time view and change of parameters;clock display.
- Modbus-RTU communication.
- Much safer with more stability and reliability.
- Big output capacity ,strong load capacity.

Wiring Diagram

ECB-1000P

ECB-1000Q

ECB-1000S

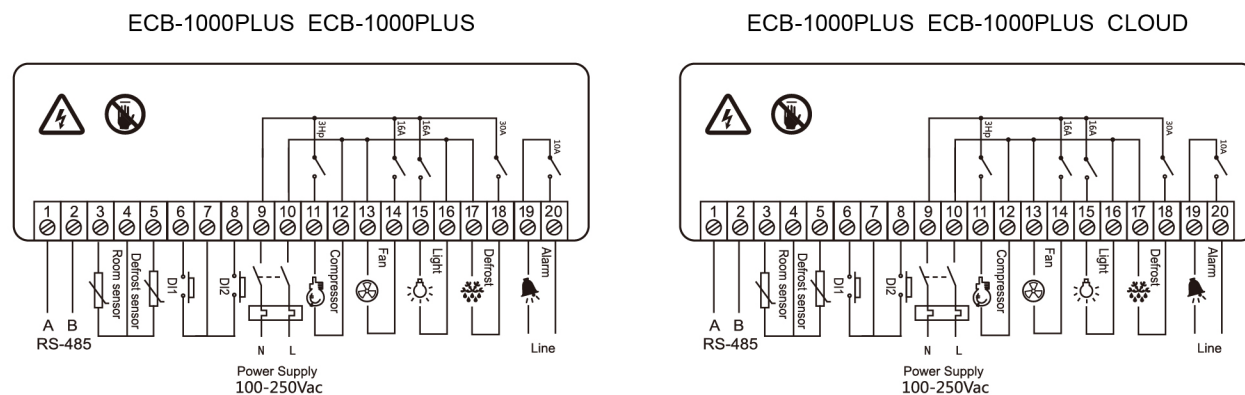| One Machine for One Storage		ECB-1000 Series Plastic Electric Cabinet Products Specification		
		ECB-1000P	ECB-1000Q	ECB-1000S
Function		Thermostat	Cooling	Cooling
Measuring range		-50- 99 ℃	-45- 99 ℃	-45- 99 ℃
Control range		-40- 99 ℃	-40- 90 ℃	-40- 90 ℃
Measuring accuracy		±1℃ (-40- 50℃) ; ±2℃ (others)	±1℃	±1℃
Voltage range		220V±10% 50/60Hz	220V±10% 50/60Hz	100- 240VAC 50/60Hz
Overall power consumption		5W	5W	5W
Analog input	Temperature probe	●	●	●
	Defrost probe	—	●	●
Digital input	Door switch	—	●	●
	Multi-function 1(1)	—	—	—
	Multi-function 2(2)	—	—	—
Digital output	Compressor	2Hp	2Hp	2Hp
	Defrost	—	8A	8A
	Fan	—	5A	5A
	Light	—	5A	5A
	Alarm	—	5A	5A
	Four-way valve	5A	—	—
Defrost type	Electric	—	●	●
	Hot gas	—	●	●
	Shutdown	●	—	—
Defrost type	Cyclic	●	●	●
	Real-time clock	—	●	●
Defrost mode	Clock mode	●	●	●
	Buzzer alarm		●	●
Other features	HACCP function	—	—	●
	High/low temp alarm	●	●	●
	Temperature unit CF	—	●	●
	ECO mode		●	●
Communication interface	RS-485	—	—	●
Networking function	WiFi(2.4GHz)	—	—	—
	4G	—	—	—
Operating temperature		-5- 55 ℃	-5- 60 ℃	-5- 60 ℃
Storage temperature		-20- 60 ℃	-20- 75 ℃	-20- 75 ℃
Dimensions (mm)		261*167.5*95mm	261*167.5*95mm	261*167.5*95mm

ECB-1000PLUS

ECB-1000PLUS CLOUD

Features

- Multiple functions: refrigeration, defrost, fan and light
- Compact clamshell with ABS flame retardant material.
- Waterproof,dustproof,quakeproof.
- High/Low temperature alarm,sensor fault alarm.
- Manual on/off;real-time view and change of parameters;clock display.
- Modbus-RTU communication
- nternet access:WiFi&4G(only ECB-1000PLUS CLOUD)
- Much safer with more stability and reliability.
- Big output capacity ,strong load capacity.

Wiring Diagram

ECB-1000PLUS ECB-1000PLUS

A B
RS-485

Power Supply
100-250Vac

Line

ECB-1000PLUS ECB-1000PLUS CLOUD

A B
RS-485

Power Supply
100-250Vac

Line

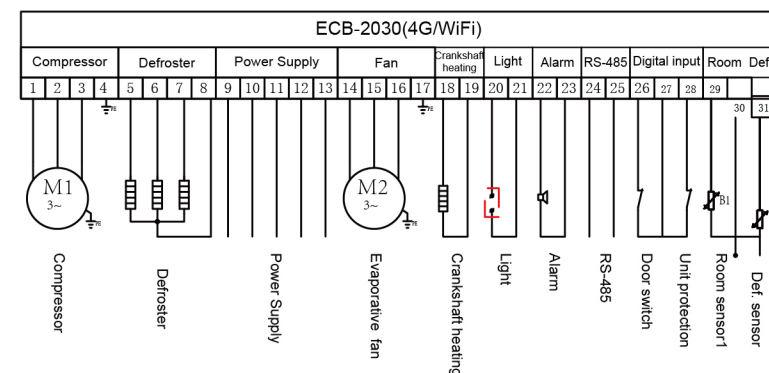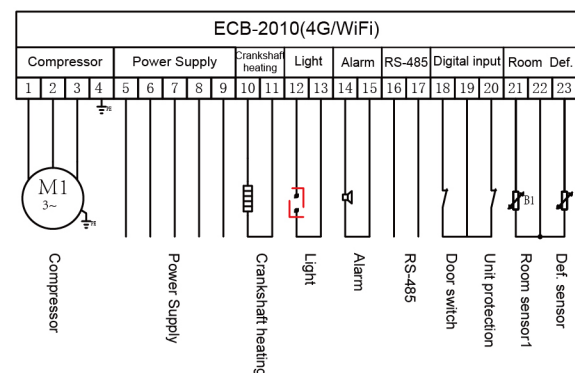| One Machine for One Storage		ECB-1000 Series Plastic Electric Cabinet Products Specification	
		ECB-1000PLUS	ECB-1000PLUS CLOUD
	Function	Cooling	Cooling
	Measuring range	-49- 119 ℃	-49- 119 ℃
	Control range	-40- 99 ℃	-40- 99 ℃
	Measuring accuracy	±1℃ (-20- 50℃) ; ±1.5℃ (others)	±1℃ (-20- 50℃) ; ±1.5℃ (others)
	Voltage range	100- 256VAC 50/60Hz	100- 256VAC 50/60Hz
	Overall power consumption	7W	12W
Analog input	Temperature probe	●	●
	Defrost probe	●	●
Digital input	Door switch	—	—
	Multi-function 1(1)	●	●
	Multi-function 2(2)	●	●
Digital output	Compressor	3Hp	3Hp
	Defrost	30A	30A
	Fan	16A	16A
	Light	16A	16A
	Alarm	10A	10A
	Four-way valve	—	—
Defrost type	Electric	●	●
	Hot gas	●	●
	Shutdown	—	—
Defrost type	Cyclic	●	●
	Real-time clock	●	●
Defrost mode	Clock mode	●	●
	Buzzer alarm	●	●
Other features	HACCP function	—	—
	High/low temp alarm	●	●
	Temperature unit CF	●	●
	ECO mode	●	●
Communication interface	RS-485	●	●
Networking function	WiFi(2.4GHz)	—	●
	4G	—	●
	Operating temperature	-10- 65 ℃	-10- 65 ℃
	Storage temperature	-20- 75 ℃	-20- 75 ℃
	Dimensions (mm)	261*167.5*95mm	261*167.5*95mm

ECB-2010W(4G/WiFi)

ECB-2030W(4G/WiFi)

Features

- This series of electric cabinets are suitable for the control of medium and low temperature cold storage and quick freezers.
- The electric cabinet has a shell of ABS flame retardant material and modular design. It adopts a large panel screen with touch keys on which temperature parameters are displayed and monitored centrally. For hotels, supermarkets and other operating places, the product has business and non-business modes.
- It has various protection functions such as compressor high-pressure protection, low-pressure protection, module protection, overload protection, phase sequence protection, phase missing protection, three-phase unbalance protection and inverse time limit protection.

Wiring Diagram

ECB-2010(4G/WiFi)

Compressor	Power Supply	Crankshaft heating	Light	Alarm	RS-485	Digital input	Room	Def.
1 2 3 4	5 6 7 8 9 10 11	12 13	14 15	16 17	18 19 20	21 22	23	

Compressor · Power Supply · Crankshaft heating · Light · Alarm · RS-485 · Door switch · Unit protection · Room sensor1 · Def. sensor

M1 3~

ECB-2030(4G/WiFi)

Compressor	Defroster	Power Supply	Fan	Crankshaft heating	Light	Alarm	RS-485	Digital input	Room	Def.
1 2 3 4	5 6 7 8	9 10 11 12	13 14 15 16 17	18	19 20 21	22 23	24 25	26 27 28	29	30 31

Compressor · Defroster · Power Supply · Evaporative fan · Crankshaft heating · Light · Alarm · RS-485 · Door switch · Unit protection · Room sensor1 · Def. sensor

M1 3~   M2 3~

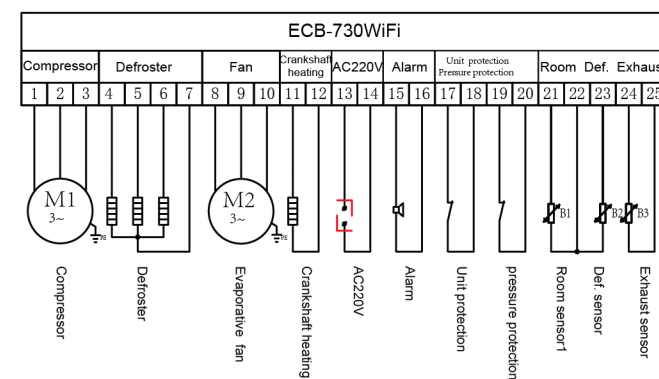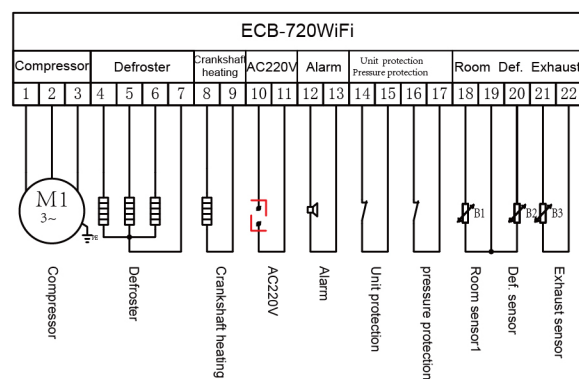| One Machine for One Storage		ECB-2000 Series Plastic Electric Cabinet Products Specification	
Overview	Description	ECB-2010W(4G/WiFi)	ECB-2030W(4G/WiFi)
	Control load	Compressor, defroster	Compressor, defroster, air cooler
Unit	Supply voltage	3-phase 5-wire or 3-phase 4-wire 380VAC±10% 50/60HZ	
	Applicable compressor type	Piston compressors and scroll compressors	
	Applicable compressor power	5HP , 10HP , 15HP	
	Compressor contactor size	18A(5HP),25A(10HP),32A(15HP)	
	Compressor start mode	Direct start	Direct start
	Condenser type	Air cooled	Air cooled
Storehouse	Cold storage type	Calandria cold storage	Fan cold storage
	Defrost mode	Defrost-free	Electric
Temperature control	Thermostat model	ECB-2000	ECB-2000
	Control range	-40℃～85℃	
	Control accuracy	±1℃	
	Display resolution	0.1℃	
	Temperature sensor type	NTC (10KΩ/25℃ , B value 3435K) (sensor length 5m)	
	Number of temperature sensors	Two lines of temperature sensors (one for storage temperature, and one for defrost temperature)	
	Compressor protection output delay	1～120 min, adjustable	
	Defrost start mode	Cyclic defrost and clock defrost, optional	
	External signal protection input	Two lines of external signal input	
Protection	Motor protector	The thermostat is self-contained (with phase missing, phase sequence, overload, three-phase unbalance and inverse time limit protection functions, among others)	
	Current measuring range	0~80A, equipment with instantaneous current exceeding 230A not allowed	
	Current measuring accuracy	±3% (within nominal range of the transformer) and ±2A (0～30A)	
	Current display resolution	0.1A	
Body	5-15HP dimensions (W*H*D)	380*329*140mm	380*329*140mm
	Color	White	
Networking	Remote monitoring	Product model with 4G/WiFi for networking	
	Networking module	RCW-2E	
Others	Service environment	Temperature:-10℃～60℃ ; Humidity: 20%～90%RH, condensation prevention; Designed to be placed in a ventilated and dry environment away from heat sources and direct sunlight	

ECB-720WIFI

ECB-730WIFI

Features

- This series of electric cabinets are suitable for the control of medium and low temperature cold storage and quick freezers.
- WIFI networked and with the Chinese human-machine interface, it can be operated without instructions;
- Measurement, display and control of storage temperature, defrost temperature and exhaust temperature;
- Functions of temperature correction and alarm for overtemperature, overrange and sensor fault;
- It has the function of high and low pressure input detection of the compressor. It can remotely check and modify the parameters of the unit and record and save the temperature data in real time on PC and mobile phone APP, thus realizing remote centralized monitoring of the cold storage.
- It has various protection functions such as compressor high-pressure protection, low-pressure protection, module protection, overload protection, phase sequence protection, phase missing protection and three-phase unbalance protection.

Wiring Diagram

ECB-720WiFi

| Compressor | | | Defroster | | | Crankshaft heating | AC220V | | Alarm | | Unit protection Premure protection | | | | Room | Def. | Exhaust | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

ECB-730WiFi

| Compressor | | | Defroster | | | Fan | | | Crankshaft heating | AC220V | | Alarm | | Unit protection Premure protection | | | | | Room | Def. | Exhaust | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

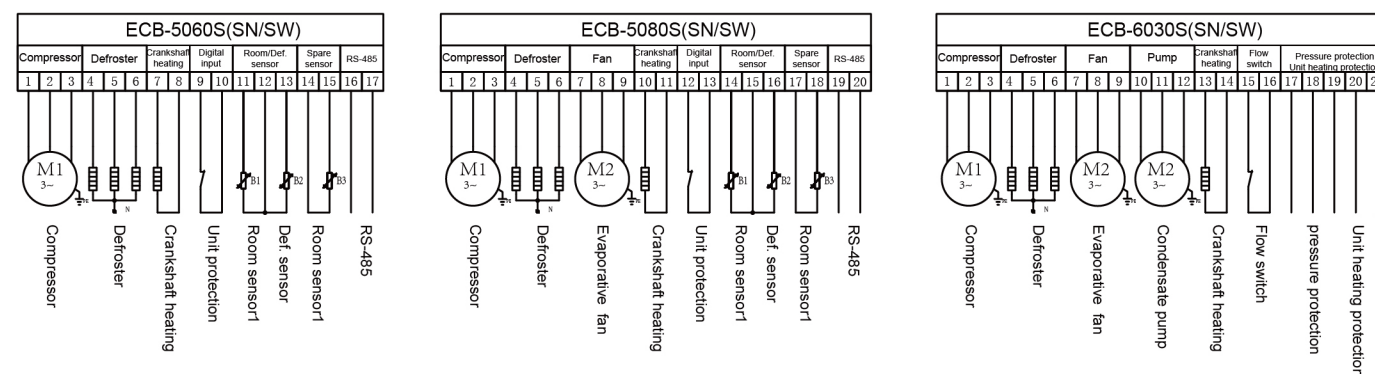| One Machine for One Storage		ECB-700 WIFI Series Electric Cabinet Products Specification	
Overview	Description	ECB-720WIFI	ECB-730WIFI
	Control load	Compressor, defroster	Compressor, defroster, air cooler
Unit	Supply voltage	3-phase 5-wire or 3-phase 4-wire 380VAC±10% 50/60HZ	
	Applicable compressor type	Piston compressors and scroll compressors	
	Applicable compressor power	5.5KW,7.5KW,10.5KW	
	Compressor contactor size	18A(5.5KW),25A(7.5KW),32A(10.5KW)	
	Compressor start mode	Direct start	Direct start
	Condenser type	Air cooled	Air cooled
Storehouse	Cold storage type	Fan cold storage	Fan cold storage
	Defrost mode	Electric	Electric
Temperature control	Thermostat model	LTC-700	LTC-700
	Control range	Storage temperature at defrost period-50℃～50℃; exhaust temperature 0℃～120℃	
	Control accuracy	±1℃ at-30℃～50℃ or ±2℃	
	Display resolution	0.1℃	
	Temperature sensor type	NTC (10KΩ/25℃, B value 3435K) (5HP product storage temperature and defrost sensor length 5m, other products 8m)	
	Number of temperature sensors	Three lines of temperature sensors (one for storage temperature, one for defrost temperature, and one for exhaust temperature)	
	Compressor protection output delay	One line of unit comprehensive protection signal input, with alarm reminder for unit protection	
	External signal protection input	1～120 min, adjustable	
Protection	Motor protector	The thermostat is self-contained (with phase missing, phase sequence, overload, three-phase unbalance and inverse time limit protection functions, among others)	
	Current measuring range	1～30A	
	Current measuring accuracy	0-20A: ±1A; 20A-30A: ±5%	
	Current display resolution	0.1A	
Body	5-15HP dimensions (W*H*D)	340*420*135mm	340*420*135mm
	Color	Blue door and white body	
Networking	Remote monitoring	With networking function	
	Networking module	The thermostat has its own WIFI networking module	
Others	Service environment	Temperature:-10℃～60℃; Humidity: 20%～90%RH, condensation prevention; Designed to be placed in a ventilated and dry environment away from heat sources and direct sunlight	

Features

- This series of electric cabinets are suitable for the control of medium and low temperature cold storage and quick freezers.
- The LTC-500B large screen controller is used for visual view of the current storage temperature and set temperature, and the multilingual operating system can be operated without instructions, which is convenient for customers to debug and use.
- With the function of IoT, it can remotely view and modify unit parameters and record and save temperature data in real time on PC and mobile phone APP to realize remote centralized monitoring of the cold storage.
- It has a variety of protection functions such as compressor high-pressure protection, low-pressure protection, module protection, overload protection, phase sequence protection, phase missing protection, three-phase unbalance protection and inverse time limit protection.

Wiring Diagram

ECB-5060S(SN/SW)

ECB-5080S(SN/SW)

ECB-6030S(SN/SW)

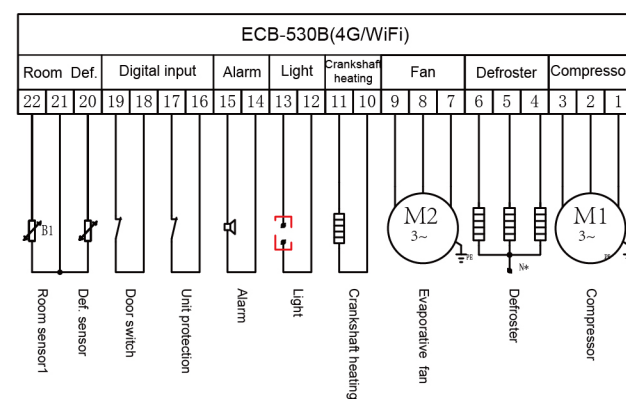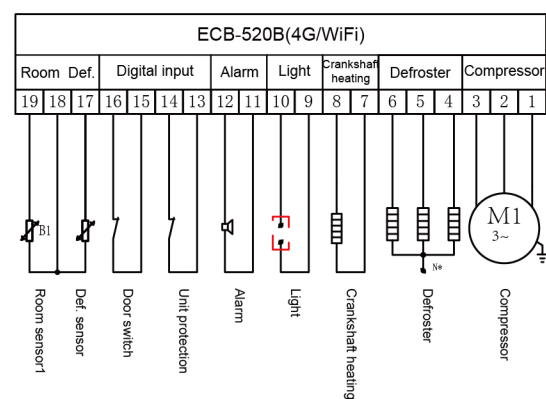| One Machine for One Storage		ECB-6000N IOT Series Electric Cabinet Products Specification		
Overview	Description	ECB-5060S(SN/SW)	ECB-5080S(SN/SW)	ECB-6030S(SN/SW)
	Control load	Compressor, defroster	Compressor, defroster, air cooler	Compressor, defroster, air cooler, condensate pump
Unit	Supply voltage	3-phase 5-wire or 3-phase 4-wire 380VAC±10% 50/60HZ (single-phase product supply voltage 220VAC±10% 50/60HZ)		
	Applicable compressor type	Piston compressors and scroll compressors		
	Applicable compressor power	5HP, 10HP, 15HP, 20HP, 25HP, 30HP (it is recommended to use one specification larger when using medium and high temperature cold storage)		
	Compressor contactor size	18A(5HP),25A(10HP),32A(15HP),40A(20HP),50A(25HP),65A(30HP)		
	Compressor start mode	Direct start	Direct start	Direct start
	Condenser type	Air cooled	Air cooled	Water cooling
Storehouse	Cold storage type	Fan cold storage	Fan cold storage	Fan cold storage
	Defrost mode	Electric	Electric	Electric
Temperature control	Thermostat model	MTC-6000N	MTC-6000N	MTC-6000N
	Control range	-50℃～50℃		
	Control accuracy	±1℃		
	Display resolution	0.1℃		
	Temperature sensor type	NTC (10KΩ/25℃, B value 3435K) (5HP product defrost sensor length 5m, other products 8m)		
	Number of temperature sensors	Three lines of temperature sensors (two for storage temperature, and one for defrost temperature)		
	Compressor protection output delay	1～120 min, adjustable		
Protection	Motor protector	0～80A		
	Current measuring range	±3% (within nominal range of the transformer) and ±2A (0～30A)		
	Current measuring accuracy	1A		
	Current display resolution	CP-6000N (with phase missing, phase sequence, overload, three-phase unbalance and inverse time limit protection functions, among others)		
Body	5-15HP dimensions (W*H*D)	340*420*135mm	340*420*135mm	400*550*180mm
	20-30HP dimensions (W*H*D)	350*470*180mm	400*550*180mm	400*550*180mm
	Color	Blue door and white body		
Networking	Remote monitoring	None for S series; 4G networking module for SN series; WIFI networking module for SW series		
	Networking module	RCW-2S		
Others	Service environment	Temperature:-10℃～60℃; Humidity: 20%～90%RH, condensation prevention; Designed to be placed in a ventilated and dry environment away from heat sources and direct sunlight		

ECB-520B(4G/WiFi)

ECB-530B(4G/WiFi)

Features

- This series of electric cabinets are suitable for the control of medium and low temperature cold storage and quick freezers.

- The LTC-500B large screen controller is used for visual view of the current storage temperature and set temperature, and the multilingual operating system can be operated without instructions, which is convenient for customers to debug and use.

- With the function of IoT, it can remotely view and modify unit parameters and record and save temperature data in real time on PC and mobile phone APP to realize remote centralized monitoring of the cold storage.

- It has a variety of protection functions such as compressor high-pressure protection, low-pressure protection, module protection, overload protection, phase sequence protection, phase missing protection, three-phase unbalance protection and inverse time limit protection.

Wiring Diagram

ECB-520B(4G/WiFi)

Room	Def.	Digital input	Alarm	Light	Crankshaft heating	Defroster	Compressor
19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

Room sensor1 / Def. sensor / Door switch / Unit protection / Alarm / Light / Crankshaft heating / Defroster / Compressor

M1 3~

ECB-530B(4G/WiFi)

Room	Def.	Digital input	Alarm	Light	Crankshaft heating	Fan	Defroster	Compressor
22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

Room sensor1 / Def. sensor / Door switch / Unit protection / Alarm / Light / Crankshaft heating / Evaporative fan / Defroster / Compressor

M2 3~   M1 3~

One Machine for One Storage		ECB-500B IoT Series Electric Cabinet Products Specification	
Overview	Description	ECB-520B(4G/WiFi)	ECB-530B(4G/WiFi)
	Control load	Compressor, defroster	Compressor, defroster, air cooler
Unit	Supply voltage	3-phase 5-wire or 3-phase 4-wire 380VAC±10% 50/60HZ	
	Applicable compressor type	Piston compressors and scroll compressors	
	Applicable compressor power	5.5KW,7.5KW,10.5KW	
	Compressor contactor size	18A(5.5KW),25A(7.5KW),32A(10.5KW)	
	Compressor start mode	Direct start	Direct start
	Condenser type	Air cooled	Air cooled
Storehouse	Cold storage type	Fan cold storage	Fan cold storage
	Defrost mode	Electric	Electric
Temperature control	Thermostat model	LTC-500B	LTC-500B
	Control range	Storage temperature at defrost period-50℃～50℃；exhaust temperature 0℃～120℃	
	Control accuracy	±1℃ at-30℃～50℃ or ±2℃	
	Display resolution	0.1℃	
	Temperature sensor type	NTC (10KΩ/25℃, B value 3435K) (5HP product storage temperature and defrost sensor length 5m, other products 8m)	
	Number of temperature sensors	Three lines of temperature sensors (two for storage temperature, and one for defrost temperature)	
	Compressor protection output delay	1～120 min, adjustable	
	External signal protection input	Two lines of unit comprehensive protection signal input, and two lines of auxiliary output	
Protection	Motor protector	The thermostat is self-contained (with phase missing, phase sequence, overload, three-phase unbalance and inverse time limit protection functions, among others)	
	Current measuring range	0～80A	
	Current measuring accuracy	±3% (within nominal range of the transformer) and ±2A (0～30A)	
	Current display resolution	0.1A	
Body	5-15HP dimensions (W*H*D)	350*470*180mm	350*470*180mm
	20-30HP dimensions (W*H*D)	500*650*180mm	500*650*180mm
	Color	Blue door and white body	
Networking	Remote monitoring	Product model with 4G/WiFi for networking	
	Networking module	RCW-2S	
Others	Service environment	Temperature:-10℃～60℃；Humidity: 20%～90%RH, condensation prevention; Designed to be placed in a ventilated and dry environment away from heat sources and direct sunlight	