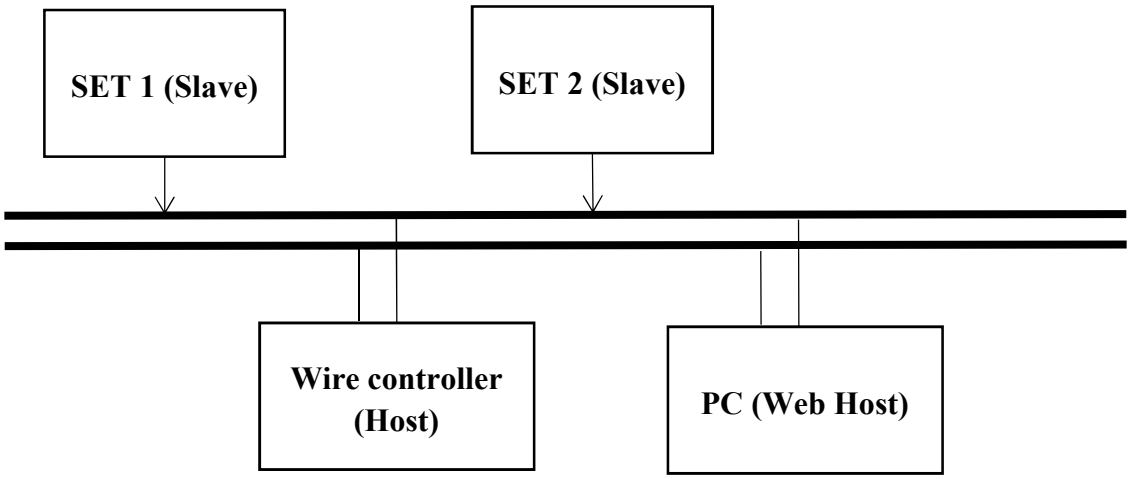
1.1 Communication Mode

Wire Controller, PC and external machine are connected by RS485 bus. Wire Controller, PC is the communication host,external machine is the communication slave.Here is the Communication topology:



Address agreement: range 1-255

Address 0: broadcast address, use the broadcast command to send data, all units receive the data, but do not reply

1.2 Communication timing

The communication adopts the master-slave response half duplex asynchronous serial communication mode, and the external machine works in the slave state.After receiving the host command from the machine, wait for 100ms after the communication, with less than 100 addresses for each visit. Since PC and Wire Controller as the host, the communication time must be staggered and alternate transmission can be adopted;

1.3 Communication Protocol Description

1. The communication adopts RS485 bus, asynchronous serial signal 1 start bit, 8 data bits, 1 end bit, no parity, wave rate 9600.
2. RTU protocol with standard MODBUS, 16-bit data structure, 16-bit CRC check, low bytes in the front high bytes after.
3. Three commands are used for the primary-slave communication:

3.1 Order 03H (query for 1 or more registers)

Send Order: [device address] + [Order No. 03h] + [high 8 bits of start register address] + [low 8 bits] + [high 8 bits of read registers] + [low 8 bits] + [low 8 bits of CRC check] + [high 8 bits of CRC check]

Device Response: [device address] + [Order No.03H] + [number of bytes returned] + [data 1 high 8 bits] + [data 1 high and low bits] +... + [data n] + [CRC check low 8 bits] + [CRC check high 8 bits]

3.2 Order 06H (Modify a single register)

Send Order: [device address] + [Order No.06H] + [lower register address 8 bits] + [low 8 bits] + [lower data 8 bits] + [low 8 bits] + [CRC check low 8 bits] + [CRC check high 8 bits]

Device Response: If the order sent by the computer is successfully returned as is, otherwise it does not respond

3.3 Order 10H (Modify multiple registers)

Send Order: [device address] + [Order 10H] + [start register address 8 bits high + + [low 8 bits] + [register number high 8 bits] + [low 8 bits] + [register bytes] + [data 1 high 8 bits] + [low 8 bits] +.. + [data N high 8 bits] + [low 8 bits] + [CRC check low 8 bits] + [CRC check high 8 bits]

Device Response: [device address] + [Order 10H] + [Start register address 8 bits higher] + [low 8 bits] + [register number 8 bits higher] + [low 8 bits] + [CRC check low 8 bits] + [high 8 bits of CRC check]

3.4 Command 01H (query 1 or more coils) (Communication protocol ≥130 valid)

Send command: [Device address] + [Command 01H] + [Start coil address high 8 bits] + [Low 8 bits] + [Read coil number high 8 bits] + [Low 8 bits] + [CRC check low 8 bits] + [CRC check high 8 bits]

Device response: [Device address] + [Command number 01H] + [Number of bytes returned] + [Data 1] + [Data 2] +... + [data n] + [low 8 bits of CRC checksum] + [high 8 bits of CRC checksum]

Note: A single data contains the values of 8 coils

3.5. Command 05H (Modify a single coil) (Communication protocol ≥130 valid)

Send command: [device address] + [command number 05H] + [high 8 bits of the coil address to be lowered] + [low 8 bits] + [high 8 bits of the data to be lowered] + [low 8 bits] + [low 8 bits of CRC checksum] + [high 8 bits of CRC checksum]

Device response: if successful return the command sent by the computer as is, otherwise no response

Note: if the lower data is zero, the coil is set to zero; if the lower data is not zero, the coil is set to 1.

3.6. Sending other commands is invalid, and does not respond to the data

No	Order Name	Address Range	Type	Note
1	Real-time status and fault	0x0000～0x003F	Read-Only	64-bit
2	Real-time data	0x0040～0x00FF	Read-Only	192-bit
3	Unit system parameters P	0x0100～0x02FF	Read-Write	512-bit
4	User parameters	0x0300～0x032F	Read-Write	48-bit
5	User orders	0x0330～0x035F	Read-Write	48-bit
6	Version information	0x0360～0x036F	Read-Only	16-bit
7	Unit System Parameter L	0x0800-0x083F	Read-Write	64-bit
8	Bit manipulation instructions	0x1000～0x10FF	Read-Write	256-bit

1.Real-time data 0x0000～0x03F

Including: switch port, electric relay, dial switch, fault and other data

Address	Parameter Name	Range	Default	Type	Note
0x0000	Run State 1	Standard Bits		Read-Only	
0x0001	Run State 2	Standard Bits		Read-Only	
0x0002	Fault State 1	Standard Bits		Read-Only	
0x0003	Fault State 2	Standard Bits		Read-Only	
0x0004	Fault State 3	Standard Bits		Read-Only	
0x0005	System 1 Fault State 1	Standard Bits		Read-Only	
0x0006	System 1 Fault State 2	Standard Bits		Read-Only	
0x0007	System 1 Drive Fault State 1	Standard Bits		Read-Only	

0x0008	System 1 Drive Fault State 2	Standard Bits		Read-Only	
0x0009	System 1 Drive Fault State 3	Standard Bits		Read-Only	
0x000A	System 2 fault state 1	Standard Bits		Read-Only	Refer to 0x0005
0x000B	System 2 fault state 2	Standard Bits		Read-Only	Refer to 0x0006
0x000C	System 2 Drive Fault State 1	Standard Bits		Read-Only	Refer to 0x0007
0x000D	System 2 Drive Fault State 2	Standard Bits		Read-Only	Refer to 0x0008
0x000E	System 2 Drive Fault State 3	Standard Bits		Read-Only	Refer to 0x0009
0x000F		Standard Bits		Read-Only	Refer to 0x0005
0x0010		Standard Bits		Read-Only	Refer to 0x0006
0x0011		Standard Bits		Read-Only	Refer to 0x0007
0x0012		Standard Bits		Read-Only	Refer to 0x0008
0x0013		Standard Bits		Read-Only	Refer to 0x0009
0x0014		Standard Bits		Read-Only	Refer to 0x0005
0x0015		Standard Bits		Read-Only	Refer to 0x0006
0x0016		Standard Bits		Read-Only	Refer to 0x0007
0x0017		Standard Bits		Read-Only	Refer to 0x0008
0x0018		Standard Bits		Read-Only	Refer to 0x0009
0x0019	Relay output state 1	Standard Bits		Read-Only	
0x001A	Relay output state 2	Standard Bits		Read-Only	
0x001B	Relay output state 3	Standard Bits		Read-Only	
0x001C	Relay output state 4	Standard Bits		Read-Only	
0x001D	Switch Port State 1	Standard Bits		Read-Only	
0x001E	Switch Port State 2	Standard Bits		Read-Only	
0x001F	Switch Port State 3	Standard Bits		Read-Only	

0x0020	Switch Port State 4	Standard Bits		Read-Only	
0x0021		Actual Value		Read-Only	
0x0022		Actual Value		Read-Only	
0x0023		Actual Value		Read-Only	
0x0024	Current unit tooling No	Actual Value		Read-Only	
0x0025		Actual Value		Read-Only	
0x0026		Actual Value		Read-Only	
0x0027	Compressor 1 Target frequency	Actual Value		Read-Only	
0x0028	Compressor 2 Target frequency	Actual Value		Read-Only	
.....					
0x003F	State Reserved				

2.Real-time data 0x0040～0x00FF

Including: temperature, voltage, pressure, expansion valve opening degree and other data

Address	Parameter Name	Range	Default	Type	Note
0x0040	Compressor operating frequency	Measured Value	Measured Value	Read-Only	
0x0041	Fan operating frequency / rotational speed	Measured Value	Measured Value	Read-Only	
0x0042	Electronic expansion valve steps count	Measured Value	Measured Value	Read-Only	
0x0043	Number of EVI valve steps	Measured Value	Measured Value	Read-Only	
0x0044	AC Input Voltage	Measured Value	Measured Value	Read-Only	
0x0045	AC Input Current	Measured Value	Measured Value	Read-Only	Display = Measured / 10
0x0046	Compressor Phase Current	Measured Value	Measured Value	Read-Only	Display = Measured / 10
0x0047	Compressor IPM Temperature	Measured Value	Measured Value	Read-Only	
0x0048	High pressure saturation temperature	Measured Value	Measured Value	Read-Only	
0x0049	Low pressure saturation temperature	Measured Value	Measured Value	Read-Only	

0x004A	External ambient temperature T1	Measured Value	Measured Value	Read-Only	
0x004B	External coil tube (fin) T2	Measured Value	Measured Value	Read-Only	
0x004C	Internal coil tube (plate replacement) T3	Measured Value	Measured Value	Read-Only	
0x004D	Compressor suction temperature T4	Measured Value	Measured Value	Read-Only	
0x004E	Compressor exhaust temperature T5	Measured Value	Measured Value	Read-Only	
0x004F	Return water temperature T6	Measured Value	Measured Value	Read-Only	
0x0050	Water outlet temperature T7	Measured Value	Measured Value	Read-Only	
0x0051	Economizer inlet tube T8	Measured Value	Measured Value	Read-Only	
0x0052	Economizer inlet tube T9	Measured Value	Measured Value	Read-Only	
0x0053	Current unit tooling No	Measured Value	Measured Value	Read-Only	
0x0054	Water tank temperature	Measured Value	Measured Value	Read-Only	
0x0055	Fluorine board heat exchanger temperature	Measured Value	Measured Value	Read-Only	
0x0056	Driver manufacturer	Measured Value	Measured Value	Read-Only	
0x0057	Pump speed PWM	Measured Value	Measured Value	Read-Only	
0x0058	Water flow	Measured Value	Measured Value	Read-Only	
0x0059	User side water return temperature	Measured Value	Measured Value	Read-Only	
0x005A	Unit input voltage	Measured Value	Measured Value	Read-Only	
0x005B	Unit input current	Measured Value	Measured Value	Read-Only	Display = Measured / 100
0x005C	Unit input power	Measured Value	Measured Value	Read-Only	Display = Measured / 100
0x005D	Total unit electricity consumption	Measured Value	Measured Value	Read-Only	

0x005E	System 2 compressor operating frequency	Measured Value	Measured Value	Read-Only	
0x005F	System 2 fan operation frequency/speed				
0x0060	System 2 fan operation frequency/speed				
0x0061	System 2 EVI valve steps				
0x0062	System 2 AC input voltage				
0x0063	System 2 AC input current				Display = Measured / 10
0x0064	System 2 compressor phase current				Display = Measured / 10
0x0065	System 2 compressor IPM temperature				
0x0066	System 2 high pressure saturation temperature				
0x0067	System 2 low pressure saturation temperature				
0x0068	System 2 outer coil (fins)				
0x0069	System 2 inner coil (plate heat exchanger)				
0x006A	System 2 compressor suction temperature				
0x006B	System 2 exhaust temperature				
0x006C	System 2 economizer inlet pipe temperature				
0x006D	System 2 economizer inlet pipe temperature				
0x0072	Sanitary Hot water heat source temperature value	Measured Value	Measured Value	Read-Only	
0x0073	Heating heat source temperature value/temperature zone 2 temperature	Measured Value	Measured Value	Read-Only	
0x0074	Buffer tank temperature value	Measured Value	Measured Value	Read-Only	
0x0075	Total outlet water temperature value	Measured Value	Measured Value	Read-Only	
0x0076	Unit B-phase input voltage	Measured Value	Measured Value	Read-Only	
0x0077	Unit B phase input current	Measured Value	Measured Value	Read-Only	Display = Measured / 100

0x0078	Unit C phase input voltage	Measured Value	Measured Value	Read-Only	
0x0079	Unit C phase input current	Measured Value	Measured Value	Read-Only	Display = Measured / 100
0x007A	Smart Grid Status	Measured Value	Measured Value	Read-Only	
0x007B	Temperature zone 2 mixing valve opening degree	Measured Value	Measured Value	Read-Only	
0x007C	Temperature of mixing water in zone 1	Measured Value	Measured Value	Read-Only	
0x007D	Temperature zone 1 mixing valve opening degree	Measured Value	Measured Value	Read-Only	
.....					
0x00F0					
0x00F1					
0x00F2					
0x00F3					
0x00F4					
0x00F5					
0x00F6					
0x00F7					
0x00F8					
0x00F9					
0x00FA	Set the upper limit of floor heating / heating temperature	Measured Value	Measured Value	Read-Only	
0x00FB	Set the lower limit of floor heating / heating temperature	Measured Value	Measured Value	Read-Only	
0x00FC	Set the upper limit of sanitary hot water temperature	Measured Value	Measured Value	Read-Only	
0x00FD	Set the lower limit of sanitary hot water temperature	Measured Value	Measured Value	Read-Only	
0x00FE	Set the upper limit of cooling temperature	Measured Value	Measured Value	Read-Only	
0x00FF	Set the lower limit of cooling temperature	Measured Value	Measured Value	Read-Only	

Name	Bit	State		Name	Bit	State
Run State 1	Bit0	Refrigerant recycling		**Run State 2**	Bit0	High temperature antivirus
	Bit1	First level anti-freezing			Bit1	High temperature antivirus insulation
	Bit2	Secondary anti-freezing			Bit2	

	Bit3	failure warning			Bit3	
	Bit4	System 1 return oil			Bit4	
	Bit5				Bit5	
	Bit6				Bit6	
	Bit7				Bit7	
	Bit8	Systematic defrost			Bit8	
	Bit9				Bit9	
	Bit10				Bit10	Controller on / off
	Bit11				Bit11	
	Bit12	Constant temperature shutdown			Bit12	
	Bit13	Fault shutdown protection			Bit13	
	Bit14	Machine run			Bit14	
	Bit15	Machine wait to run			Bit15	

Name	**Bit**	**State**		**Name**	**Bit**	**State**
Fault State 1	Bit0	Wrong phase fault		**Fault State 2**	Bit0	Environmental low temperature protection
	Bit1	Lack of phase fault			Bit1	
	Bit2	Water flow fault			Bit2	
	Bit3	Communication fault			Bit3	
	Bit4	Emergency fault			Bit4	
	Bit5	Use time expired			Bit5	
	Bit6	Water tank (down) temperature fault			Bit6	Indoor environment humidity fault
	Bit7	Water inlet temperature fault			Bit7	
	Bit8	Indoor temperature fault			Bit8	
	Bit9	Environmental temperature fault			Bit9	
	Bit10	User backwater temperature fault			Bit10	
	Bit11	Cooling outlet water level is too low			Bit11	Phase order dial error
	Bit12	Water level switch fault			Bit12	
	Bit13	Water outlet temperature fault			Bit13	Water pump 1 feedback fault
	Bit14	heating outlet water level is too high			Bit14	Water pump 2 feedback fault
	Bit15	Protection against excessive water temperature difference between inlet and outlet			Bit15	Low water flow protection

Name	Bit	State				
Fault State 3	Bit0	Phase sequence disconnected				
	Bit1	Expansion board communication				
	Bit2	Anti-freezing temperature fault				
	Bit3	Fan motor 1 communication fault				
	Bit4	Fan motor 2 communication fault				
	Bit5	Inline models do not match				
	Bit6	Sanitary hot water heat source sensor failure				
	Bit7	Heating heat source sensor failure				
	Bit8	Heating water tank failure				
	Bit9	Total water outlet temperature failure				
	Bit10	Reserved				
	Bit11	Reserved				
	Bit12	Reserved				
	Bit13	Reserved				
	Bit14	Reserved				
	Bit15	Reserved				

Name	Bit	State		Name	Bit	State
System 1 Fault State 1	Bit0	high pressure switch protection		**System1 Fault State 2**	Bit0	High pressure sensor fault
	Bit1	Low pressure switch protection			Bit1	Low pressure sensor fault
	Bit2	High pressure over high protection			Bit2	Medium voltage switch failure
	Bit3	Low pressure over low protection			Bit3	Coil temperature is too high
	Bit4	Exhaust over protection			Bit4	Compressor driver board communication failure
	Bit5	Current protection			Bit5	
	Bit6	Coil protection			Bit6	
	Bit7	Coil temperature fault			Bit7	
	Bit8	Return air temperature fault			Bit8	

	Bit9	Exhaust temperature fault			Bit9	
	Bit10	Economical temperature fault			Bit10	
	Bit11	Economical temperature fault			Bit11	
	Bit12	Fan drive communication fault			Bit12	
	Bit13	DC fan fault			Bit13	
	Bit14	Refrigeration coil temperature fault			Bit14	
	Bit15	Reserved			Bit15	

Name	Bit	State		Name	Bit	State
System 1 Fault State 2	Bit0	IPM overcurrent/IPM module protection		**System 1 Fault State 2**	Bit0	Compressor overcurrent alarm
	Bit1	Compressor drive fault			Bit1	Compressor field weakening protection alarm
	Bit2	compressor overcurrent			Bit2	PIM overheat alarm
	Bit3	Input voltage phase loss			Bit3	PFC overheat alarm
	Bit4	IPM current sampling fault			Bit4	AC input overcurrent alarm
	Bit5	Overheating shutdown of power components			Bit5	EEPROM fault alarm
	Bit6	Pre charge failed			Bit6	NA
	Bit7	DC bus overvoltage			Bit7	EEPROM refresh completed
	Bit8	DC bus undervoltage			Bit8	Temperature sensing fault frequency limit;
	Bit9	AC input undervoltage			Bit9	AC undervoltage and frequency limit protection alarm;
	Bit10	AC input overcurrent			Bit10	NA
	Bit11	Input voltage sampling fault			Bit11	NA
	Bit12	DSP and PFC communication fault			Bit12	NA
	Bit13	Radiator temperature sensor fault			Bit13	NA

	Bit14	Communication failure between DSP and communication board			Bit14	NA
	Bit15	Abnormal communication with the main control board			Bit15	NA

Name	Bit	State				
System1 Fault State 3	Bit0	IPM module thermal shutdown				
	Bit1	Compressor phase loss				
	Bit2	compressor overload				
	Bit3	Input current sampling fault				
	Bit4	PIM supply voltage fault				
	Bit5	Precharge circuit voltage fault				
	Bit6	EEPROM fault				
	Bit7	AC input overvoltage fault				
	Bit8	Microelectronics fault				
	Bit9	Compressor model code fault				
	Bit10	Current sampling signal overcurrent				
	Bit11	NA				
	Bit12	NA				
	Bit13	NA				
	Bit14	NA				
	Bit15	NA				

Name	Bit	State		Name	Bit	State
System 2	Bit0	High pressure switch		**System 2**	Bit0	High pressure sensor 2

Fault state 1		2 protection		**Fault state 2**		failure
	Bit1	Low pressure switch 2 protection			Bit1	Low pressure sensor 2 fault
	Bit2	High pressure 2 overload protection			Bit2	Medium pressure switch 2 fault
	Bit3	Low pressure 2 too low protection			Bit3	Coil temperature 2 is too high
	Bit4	Exhaust 2 overheat protection			Bit4	compressor driver board 2 communication failure
	Bit5	Current 2 protection			Bit5	
	Bit6	Coil 2 overheat protection			Bit6	
	Bit7	Coil 2 temperature failure			Bit7	
	Bit8	Return air 2 temperature failure			Bit8	
	Bit9	Exhaust 2 temperature failure			Bit9	
	Bit10	Economy into temperature 2 failure			Bit10	
	Bit11	Economy out of temperature 2 failure			Bit11	
	Bit12	Fan motor driver communication 2 fault			Bit12	
	Bit13	DC fan 2 failure			Bit13	
	Bit14	Refrigeration Coil Temperature 2 Failure			Bit14	
	Bit15	Reserved			Bit15	

Name	**Bit**	**State**		**Name**	**Bit**	**State**
System 2 Driver fault state 1	Bit0	IPM overcurrent/IPM module protection		**System 2 Drivee fault state 2**	Bit0	Compressor overcurrent alarm
	Bit1	Compressor drive failure			Bit1	Compressor weak magnetic protection alarm
	Bit2	Compressor overcurrent			Bit2	PIM overheat alarm
	Bit3	Input voltage is out of phase			Bit3	PFC overheat alarm
	Bit4	IPM current sampling fault			Bit4	AC input overcurrent alarm
	Bit5	Power component overheating shutdown			Bit5	EEPROM fault alarm
	Bit6	Pre-charge failure			Bit6	NA
	Bit7	DC bus over-voltage			Bit7	EEPROM flush complete

	Bit8	DC bus undervoltage			Bit8	Temperature sensing fault limit frequency
	Bit9	AC input undervoltage			Bit9	AC under-voltage frequency limit protection alarm;
	Bit10	AC input overcurrent			Bit10	NA
	Bit11	Input voltage sampling fault			Bit11	NA
	Bit12	DSP and PFC communication failure			Bit12	NA
	Bit13	Heat sink temperature sensor failure			Bit13	NA
	Bit14	DSP and communication board communication failure			Bit14	NA
	Bit15	Abnormal communication with the main control board			Bit15	NA

Name	**Bit**	**State**				
System 2 Drive fault state 3	Bit0	IPM module overheating shutdown				
	Bit1	Compressor out of phase				
	Bit2	Compressor overload				
	Bit3	Input current sampling fault				
	Bit4	PIM supply voltage failure				
	Bit5	Pre-charge circuit voltage failure				
	Bit6	EEPROM Failure				
	Bit7	AC input overvoltage fault				
	Bit8	Microelectronic Failure				
	Bit9	Compressor model code failure				
	Bit10	Current sampling signal overcurrent				
	Bit11	NA				
	Bit12	NA				
	Bit13	NA				
	Bit14	NA				
	Bit15	NA				

Name	Bit	State		Name	Bit	State
Electric relay state 1 0x0019 (1:load start) (0:load off)	Bit0	Hot water electric heating		**Electric relay state 2 0x001A**	Bit0	Compressor 1
	Bit1	Fan high wind			Bit1	Liquid injection solenoid valve 1
	Bit2				Bit2	Enthalpy solenoid valve 1
	Bit3	Fan low wind			Bit3	Four-way valve 1
	Bit4	Air conditioner electric heating			Bit4	Throttle bypass valve 1
	Bit5	floor heating electric heating			Bit5	Fan motor 1
	Bit6	Main engine circulating water pump			Bit6	
	Bit7				Bit7	
	Bit8				Bit8	Secondary circulation pumps for heating
	Bit9	Electric crankshaft heating			Bit9	
	Bit10	Chassis electric heating			Bit10	Compressor 2
	Bit11	Return valve/pump			Bit11	Liquid spray solenoid valve 2
	Bit12				Bit12	Enthalpy solenoid valve 2
	Bit13				Bit13	Four-way valve 2
	Bit14	Air conditioner solenoid valve/three-way valve			Bit14	Throttle bypass valve 2
	Bit15	Floor heating solenoid valve / three-way valve			Bit15	

Name	Bit	State		Name	Bit	State
Electric relay state3	Bit0			**Electric relay state4**	Bit0	Pipeline electric heating 1
	Bit1				Bit1	Pipeline electric heating 2
	Bit2				Bit2	Auxiliary pumps
	Bit3				Bit3	Temperature zone 2 circulation pump
	Bit4				Bit4	Temperature zone 1 circulation pump
	Bit5				Bit5	
	Bit6	Expansion tank electric heating			Bit6	
	Bit7	Sanitary hot water heat source circulation pump			Bit7	
	Bit8	Heating heat source circulation pump			Bit8	
	Bit9	Gas boiler outlet			Bit9	
	Bit10				Bit10	
	Bit11				Bit11	
	Bit12				Bit12	
	Bit13				Bit13	
	Bit14				Bit14	
	Bit15				Bit15	

Name	Bit	State		Name	Bit	State
Switch state 1	Bit0	SW1		**Switch state2**	Bit0	
	Bit1	SW2			Bit1	
	Bit2	SW3			Bit2	

	Bit3	SW4			Bit3	
	Bit4	SW5			Bit4	
	Bit5	SW6			Bit5	
	Bit6	SW7			Bit6	
	Bit7	SW8			Bit7	High Pressure 1 Switch
	Bit8	Water flow switch			Bit8	Low Pressure 1 switch
	Bit9				Bit9	Medium Pressure 1 switch
	Bit10	Room heating linkage switch			Bit10	High Pressure 2 Switch
	Bit11	Sanitary hot water heat source linkage switch			Bit11	Low Pressure 2 switch
	Bit12	Linkage switch			Bit12	Medium Pressure 2 switch
	Bit13	emergency switch			Bit13	
	Bit14				Bit14	
	Bit15				Bit15	

Name	Bit	State		Name	Bit	State
Switch state1	Bit0			**Switch state2**	Bit0	
	Bit1				Bit1	
	Bit2				Bit2	
	Bit3				Bit3	
	Bit4				Bit4	
	Bit5	Heating heat source linkage switch			Bit5	
	Bit6				Bit6	
	Bit7				Bit7	
	Bit8				Bit8	
	Bit9				Bit9	
	Bit10				Bit10	
	Bit11				Bit11	
	Bit12				Bit12	
	Bit13				Bit13	
	Bit14				Bit14	
	Bit15				Bit15	

3.Unit system parameters 0x0200～0x03FF				
Address	**Parameter Name**	**Range**	**Type**	**Note**
0x0100	T1 external ambient temperature sensor	0～1	RW	0: Enable, 1: Disable
0x0101	High pressure switch settings	0～1	RW	0: Enable, 1: Disable
0x0102	Low pressure switch settings	0～1	RW	0: Enable, 1: Disable
0x0103	Water flow switch settings	0～1	RW	0: Enable, 1: Disable
0x0104	Thermal overload protection switch settings	0～1	RW	0: Enable, 1: Disable
0x0105	Linkage switch settings	0～1	RW	0: Enable, 1: Disable
0x0106	Fan motor type setting	0～1	RW	0: Enable, 1: Disable
0x0107	High Pressure Protection Lockout Setting	0～1	RW	0: Enable, 1: Disable
0x0108	Low Pressure Protection Lockout Setting	0～1	RW	0: Enable, 1: Disable
0x0109	Exhaust Protection Lockout Setting	0～1	RW	0: Enable, 1: Disable
0x010A	Water flow switch protection lock setting	0～1	RW	0: Enable, 1: Disable
0x010B	High Pressure protection value	40～70	RW	℃

0x010C	High Pressure frequency limit value	40～70	RW	℃
0x010D	Low Pressure protection value	-50～-10	RW	℃
0x010E	Low Pressure frequency limit value	-50～-10	RW	℃
0x010F	Exhaust temperature protection value	100～120	RW	℃
0x0110	Exhaust temperature limit frequency	90～120	RW	℃
0x0111	Refrigeration fan speed increase value	0～60	RW	℃
0x0112	Cooling fan deceleration value	0～60	RW	℃
0x0113	Heating fan deceleration value	0～60	RW	℃
0x0114	Heating fan speed increase value	0～60	RW	℃
0x0115	The unit prohibits starting low temperature value	-40～-10	RW	℃
0x0116	Electric heating start ambient temperature value	-15～40	RW	℃
0x0117	The temperature difference between the inlet and outlet water exceeds the threshold value	10～30	RW	℃
0x0118	Return water temperature compensation value	-10～10℃	RW	℃
0x0119	Outlet water temperature compensation value	-10～10℃	RW	℃
0x011A	Air conditioner return difference	0～10℃	RW	℃
0x011B	Floor heating difference	0～10℃	RW	℃
0x011C	Pump control mode when the temperature is stopped	0～1	RW	0 running / 1 stop / 2 cooling operation / 3 air conditioning operation /4 floor heating running
0x011D	Antifreeze water pump running time (every 10min)	0～10min	RW	min
0x011E	Defrost mode selection	0～2	RW	0 Smart 1 Timing 2 Fast 3 Dew point
0x011F	Enter the defrost accumulated running time threshold value	0～120	RW	℃
0x0120	Enter the defrost coil temperature value	-30～0	RW	℃
0x0121	Enter defrost temperature difference 1	0～20	RW	℃
0x0122	Enter defrost temperature difference 2	0～20	RW	℃
0x0123	Max defrost time	0～30	RW	℃
0x0124	Exit defrost coil temperature	0～30	RW	℃
0x0125	Darwin shutdown mode	0～1	RW	0 Intelligent shutdown 1 Temperature shutdown 2 Cooling intelligence
0x0126	Heating main valve initial opening constant	-999～999		

0x0127	Pressure sensor settings	0～1	RW	0: Enable, 1: Disable
0x0128	Cooling target superheat correction value	-5～10	RW	℃
0x0129	Heating high pressure protection and frequency limit correction value	-10～10	RW	℃
0x012A	Heating target superheat correction value	-5～10	RW	℃
0x012B	Medium Pressure Switch Settings	0/1	RW	0: Enable, 1: Disable
0x012C	Water flow switch failure detection settings	0/1	RW	0: Enable, 1: Disable
0x012D	Communication address code	1～16	RW	
0x012E	The return difference of the opening of the liquid injection solenoid valve	0～15	RW	℃
0x012F	EVI target superheat constant	0～12	RW	
0x0130	Whether the tank temperature probe is enabled (reserved)	0～1	RW	0: Enable, 1: Disable
0x0131	Hot water frequency operating percentage (reserved)	30%～100%	RW	%
0x0132	Cooling target frequency constant A, Y=9X/5+A	-100～100	RW	
0x0133	Cooling minimum frequency limit	15-60Hz	RW	Hz
0x0134	Cooling target frequency upper limit	40-120Hz	RW	Hz
0x0135	Cooling target frequency lower limit	15Hz-P52	RW	Hz
0x0136	Heating target frequency constant B,Y=B-X	-100～100	RW	
0x0137	Heating target frequency upper limit	50-120Hz	RW	Hz
0x0138	Heating target frequency lower limit	20Hz-P55	RW	Hz
0x0139	Heating minimum frequency 1	15-60Hz	RW	Hz
0x013A	Heating minimum frequency 2	15-60Hz	RW	Hz
0x013B	Heating minimum frequency 3	15-60Hz	RW	Hz
0x013C	Hot water target frequency constant B, Y=B-X	-100～100	RW	
0x013D	Hot water target frequency upper limit value Y=B-X	50-120Hz	RW	Hz
0x013E	Hot water target frequency lower limit value Y=B-X	15Hz-P61	RW	Hz
0x013F	Hot water minimum frequency 1	15-60Hz	RW	Hz
0x0140	Hot water minimum frequency 2	15-60Hz	RW	Hz
0x0141	Hot water minimum frequency 3	15-60Hz	RW	Hz
0x0142	DC fan initial frequency	20-60Hz	RW	Hz
0x0143	DC fan heating minimum frequency	20-60Hz	RW	Hz
0x0144	DC fan heating maximum frequency	20-60Hz	RW	Hz
0x0145	DC fan cooling minimum frequency	20-60Hz	RW	Hz
0x0146	DC fan cooling maximum frequency	20-60Hz	RW	Hz
0x0147	Turn on enthalpy control frequency	20-80Hz	RW	H
0x0148	Stop enthalpy increase frequency	20-80Hz	RW	Hz
0x0149	Refrigeration main valve initial opening 1	20～480	RW	P
0x014A	Refrigeration main valve initial opening 2	20～480	RW	P
0x014B	Refrigeration main valve initial opening 3	20～480	RW	P
0x014C	Minimum opening of refrigeration main valve	0～300	RW	P

0x014D	Minimum opening of heating main valve	0～300	RW	P
0x014E	Main valve maximum opening	100～500	RW	P
0x014F	Main valve initial opening constant c	50～300	RW	P
0x0150	Main valve initial opening coefficient a	-999～999	RW	
0x0151	Main valve initial opening coefficient b	-999～999	RW	
0x0152	Auxiliary valve maximum opening	100～500	RW	P
0x0153	Auxiliary valve minimum opening	50～300	RW	P
0x0154		10-120	RW	S
0x0155	Auxiliary valve initial opening constant c	-200～900	RW	
0x0156	Auxiliary valve initial opening coefficient a	-999～999	RW	
0x0157	Auxiliary valve initial opening coefficient b	-999～999	RW	
0x0158	Silent mode compressor frequency	20-70Hz	RW	Hz
0x0159	Quiet mode fan frequency	20-60Hz	RW	Hz
0x015A	Enthalpy increase into ambient temperature	0-45	RW	℃
0x015B	No entry into enthalpy time	0-30	RW	min
0x015C	Enthalpy Entry Temperature Difference	0-60	RW	℃
0x015D	Enthalpy increase into the press continuous running time	0-20	RW	min
0x015E	Auxiliary valve adjustment cycle	10-120	RW	S
0x015F	reserved	0-1	RW	0: Common 1: Independent
0x0160	Hot water return difference	0～10℃	RW	℃
0x0161	Water tank temperature automatic compensation	0～1	RW	0: Enable, 1: Disable
0x0162	Manual compensation value of water tank temperature	-10～10℃	RW	
0x0163	Pump speed control temperature difference	2～10℃	RW	
0x0164	PWM water pump minimum speed	20～80%	RW	%
0x0165	Pump control mode	0～1	RW	0: AC, 1: DC
0x0166	Four-way valve control mode	0～1	RW	0: Cooling energized; 1: Heating energized
0x0167	Mode switching minimum runtime	0～10min	RW	min
0x0168	Operating frequency percentage when switching modes	20-100%	RW	%
0x0169	Cooling mode operating ambient temperature limit	10～60℃	RW	℃
0x016A	Heating mode operating ambient temperature limit	10～60℃	RW	℃
0x016B	Hot water mode operating ambient temperature limit	10～60℃	RW	℃
0x016C	Hot water setting temperature upper limit	30～80℃	RW	℃
0x016D	Hot water setting temperature lower limit	10～30℃	RW	℃
0x016E	Heating set temperature upper limit	30～60℃	RW	℃
0x016F	Heating set temperature lower limit	15～30℃	RW	℃
0x0170	Cooling set temperature upper limit	20～40℃	RW	℃
0x0171	Cooling set temperature lower limit	5～20℃	RW	℃
0x0172	Selection of the number of compressor	1～2℃	RW	

0x0173	Model selection	0～5	RW	0: Two-unit supply, 1: Triple-unit supply, other reserved
0x0174	Unit temperature control method	0～1	RW	0: return water / 1: discharge water
0x0175	Antifreeze into ambient temperature	0～10℃	RW	℃
0x0176	Antifreeze Inlet and Outlet Water Temperature	0～20℃	RW	℃
0x0177	Refrigerant type	0～20	RW	1:R410A, 2:R32, 3:R290
0x0178	Low temperature start limit	0～1	RW	0: Enable, 1: Disable
0x0179	Heating frequency shield 1 stage low value	0-120	RW	Hz
0x017A	Heating frequency shield 1 stage high value	0-120	RW	Hz
0x017B	Heating frequency shield 2-stage low value	0-120	RW	Hz
0x017C	Heating frequency shield 2-stage high value	0-120	RW	Hz
0x017D	Heating frequency shield 3-stage low value	0-120	RW	Hz
0x017E	Heating frequency shielding 3-stage high value	0-120	RW	Hz
0x017F	Cooling frequency shield 1 stage low value	0-120	RW	Hz
0x0180	Refrigeration frequency shield 1 stage high value	0-120	RW	Hz
0x0181	Cooling frequency shield 2-stage low value	0-120	RW	Hz
0x0182	Cooling frequency shield 2-stage high value	0-120	RW	Hz
0x0183	Cooling frequency shield 3-stage low value	0-120	RW	Hz
0x0184	Cooling frequency shield 3-stage high value	0-120	RW	Hz
0x0185	Fan module	0～1	RW	0: Module integral type / 1: Individual module
0x0186	Water flow is too low protection value	0～100	RW	L/min
0x0187	Anti-condensation start temperature difference	0～50	RW	℃
0x0188	Throttle bypass valve opens ambient temperature	-20～50	RW	℃
0x0189	Throttle Bypass Valve Delay Compressor	0～999	RW	S
0x018A	Defrost compressor frequency	40～120	RW	Hz
0x018B	Air conditioning electric heating options	0/1	RW	0:Enable,1:Disable,2:Gas
0x018C	Hot water electric heating options	0/1	RW	0:Enable,1:Disable,2:Gas
0x018D	Dew point duration of defrost	0～60	RW	min
0x018E	Dew point constant of defrost	0～60	RW	
0x018F	Defrost can enter water temperature	0～60	RW	℃
0x0190	Defrost can enter ambient temperature	-20～30	RW	℃

0x0191	Water outlet antifreeze protection value	-20～10	RW	℃
0x0192	Pump range setting value	0～100	RW	L/min
0x0193	Refrigeration anti-freeze method	0/1/2	RW	0 low pressure 1 temperature 2 low pressure + temperature
0x0194	Refrigeration anti-freeze temperature value	-30-10	RW	℃
0x0195	Excessive water discharge limit frequency value	40-80	RW	℃
0x0196	Secondary heating pump selection	0/1/2/3	RW	0:Power on operation, 1:Power on on, 2:Linkage demand switch, 3:Temperature control
0x0197	Hot water heat source return difference	0-40	RW	℃
0x0198	Heating heat source return difference	0-40	RW	℃
0x0199	Combined temperature limit of hot water heat source	15-80	RW	℃
0x019A	Heating heat source combined temperature limit	15-80	RW	℃
0x019B	Compressor code selection (function reserved)	**0～9999**	RW	
0x019C	Auxiliary electronic expansion valve selection	0/1	RW	0: Enable, 1: Disable
0x019D	Auxiliary electronic expansion valve to close the small temperature difference	0～99	RW	℃
0x019E	Heating limit out water temperature, start ambient temperature	-45～30	RW	℃
0x019F	Temperature limiting constant P159	0～150	RW	
0x01A0	Temperature limiting factor P160	-500～500	RW	
0x01A1	Auxiliary pump selection	0/1/2/3/4	RW	0:Hot water / 1:Air conditioning / 2:Floor heating / 3:Air conditioning floor heating / 4:All
0x01A2	Anti-freeze interval for hot water pipes	**0～360**	RW	**min**
0x01A3	Minimum feedback for water pump speed regulation	0～70	RW	%
0x01A4	Energy level control	0/3	RW	0 all enabled / 1 hot water enabled / 2

				heating enabled / 3 all disabled
0x01A5	Load Back Difference	1～15	RW	℃
0x01A6	Load shedding return	1～15	RW	℃
0x01A7	Hot water mode activation ratio	1～100	RW	%
0x01A8	Non-hot water mode start ratio	1～100	RW	%
0x01A9	Loading Cycle	3～60	RW	min
0x01AA	Shielded low voltage switch ring temperature value	-50～0	RW	℃
0x01AB	DC fan target frequency constant c	40～70	RW	HZ
0x01AC	Heating fan target frequency lower limit value	20～65	RW	Hz
0x01B1	Frosting: segment water temperature setting value	**0～80**	R2	**℃**
0x01B2	High water temperature defrost frequency	**40～120**	RW	**Hz**
0x01B3	Powerful mode frequency increase value	**0～40**	RW	**Hz**
0x01B4	Powerful mode frequency limit increase value	**0～40**	RW	**Hz**
0x01B5	Frosting mode	**0～2**	RW	**0: Current state / 1: Heating / 2: Sanitary Hot water**
0x01B6	Electric pipe heating options	**0～2**	R2	**0: Double electric heating / 1: 3Kw electric heating / 2: 6Kw electric heating / 3: Disable**
0x01B7	Parameter password setting	**0~9999**	RW	**0: Disable**
0x01B8	35D working condition compressor frequency	0～120	RW	HZ
0x01B9	35C working condition compresso frequency	0～120	RW	HZ
0x01BA	35B working condition compresso frequency	0～120	RW	HZ
0x01BB	35A working condition compresso frequency	0～120	RW	HZ
0x01BC	35E working condition compressofrequency	0～120	RW	HZ
0x01BD	55D working condition compresso frequency	0～120	RW	HZ
0x01BE	55C working condition compresso frequency	0～120	RW	HZ
0x01BF	55B working condition compresso frequency	0～120	RW	HZ
0x01C0	55A working condition compresso frequency	0～120	RW	HZ
0x01C1	55E working condition compresso frequency	0～120	RW	HZ
0x01C2	35D working condition fan frequency	0～60	RW	HZ
0x01C3	35C working condition fan frequency	0～60	RW	HZ
0x01C4	35B working condition fan frequency	0～60	RW	HZ
0x01C5	35A working condition fan frequency	0～60	RW	HZ
0x01C6	35E working condition fan frequency	0～60	RW	HZ
0x01C7	55D working condition fan frequency	0～60	RW	HZ
0x01C8	55C working condition fan frequency	0～60	RW	HZ
0x01C9	55B working condition fan frequency	0～60	RW	HZ
0x01CA	55A working condition fan frequency	0～60	RW	HZ
0x01CB	55E working condition fan frequency	0～60	RW	HZ
0x01CC	35D Working condition main valve target superheat degree	-10～10	RW	℃
0x01CD	35C Working condition main valve target superheat degree	-10～10	RW	℃

0x01CE	35B Working condition main valve target superheat degree	-10～10	RW	℃
0x01CF	35A Working condition main valve target superheat degree	-10～10	RW	℃
0x01D0	35E Working condition main valve target superheat degree	-10～10	RW	℃
0x01D1	55D Working condition main valve target superheat degree	-10～10	RW	℃
0x01D2	55C Working condition main valve target superheat degree	-10～10	RW	℃
0x01D3	55B Working condition main valve target superheat degree	-10～10	RW	℃
0x01D4	55A Working condition main valve target superheat degree	-10～10	RW	℃
0x01D5	55E Working condition main valve target superheat degree	-10～10	RW	℃
0x01D6	35DInitial opening of main valve for working condition	0～500	RW	P
0x01D7	35CInitial opening of main valve for working condition	0～500	RW	P
0x01D8	35BInitial opening of main valve for working condition	0～500	RW	P
0x01D9	35AInitial opening of main valve for working condition	0～500	RW	P
0x01DA	35EInitial opening of main valve for working condition	0～500	RW	P
0x01DB	55DInitial opening of main valve for working condition	0～500	RW	P
0x01DC	55CInitial opening of main valve for working condition	0～500	RW	P
0x01DD	55BInitial opening of main valve for working condition	0～500	RW	P
0x01DE	55AInitial opening of main valve for working condition	0～500	RW	P
0x01DF	55EInitial opening of main valve for working condition	0～500	RW	P
0x01E0	35DWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E1	35CWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E2	35BWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E3	35AWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E4	35EWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E5	55DWorking condition auxiliary valve target	-10～10	RW	℃

	superheat degree			
0x01E6	55CWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E7	55BWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E8	55AWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01E9	55EWorking condition auxiliary valve target superheat degree	-10～10	RW	℃
0x01EA	35DWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01EB	35CWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01EC	35BWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01ED	35AWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01EE	35EWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01EF	55DWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01F0	55CWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01F1	55BWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01F2	55AWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01F3	55EWorking condition auxiliary valve target superheat degree	0～500	RW	P
0x01F4	35 Working condition target water flow	0～100	RW	L/min
0x01F5	55 Working condition target water flow	0～100	RW	L/min
0x01F6	35 Rated working condition fan frequency	0～60	RW	Hz
0x01F7	35 Initial opening of main valve for rated working condition	0～500	RW	P
0x01F8	55 Rated working condition fan frequency	0～60	RW	Hz
0x01F9	55 Initial opening of main valve for rated working condition	0～500	RW	P
0x01FA	35 Rated working condition main valve target superheat degree	-10～10	RW	℃
0x01FB	PFCTurn off current	0～50	RW	A
0x01FC	55 Rated working condition main valve target superheat degree	-10～10	RW	℃
0x01FD	PFC Turn on current	0～50	RW	A
0x01FE	Heating medium	0～1	RW	0:Water / 1: glycol
0x01FF	Smart Grid Options	0～1	RW	0:Enable / 1:Disable

0x0200	Peak grid operating hours	30～999	RW	min
0x0201	Dual temperature zone selection	0～2	RW	0:Power on/ 1:Demand switch/ 2:Disable
0x0202	Mixing water regulating valve cycle	5～20	RW	min
0x0203	Mixing valve full cycle time	0～180	RW	S
0x0204	Maximum speed of DC water pump	50～99	RW	%
0x0205	DC water pump thermostatic speed	20～99	RW	%
0x0206	Underfloor heating test mode selection	0～1	RW	0:Enable / 1:Disable
0x0207	The time to ramp up frequency that exit exhaust superheat limits	3～240	RW	min
0x0208	Percentage correction of main valve opening at initial frequency operation	30～100	RW	%
0x0209	Mixing valve adjustment percentage			
0x020A	Dual temperature zone mode selection	0～1	RW	0: Standard dual zone/1: Real dual zone
0x020B	Dual Temperature Zone Control Return	0～30	RW	℃

4. User parameters 0x0300～0x032F

Address	Parameter Name	Range	Default	Type	Note
0x0300	Cooling set temperature	7-25		Read-Write	
0x0301	Heating set temperature	20-60		Read-Write	
0x0302	Hot water set temperature	20-75		Read-Write	
0x0303	Floor heating set temperature	20-60		Read-Write	
0x0304	Set mode	0: cooling 1: heating 2: hot water 3: Floor heating 4: Hot water + cooling 5: Hot water + heating 6: Reserve 7: Hot water + floor heating		Read-Write	
0x0305	On/Off	0: Power off / 1: Power on		Read-Write	
0x0306	Indoor temperature set point			Read-Write	
0x0307	Frequency conversion mode	bit0 Standard mode bit1 Power mode		Read-Write	

		bit2	Silent mode			
0x0308	reserved				Read-Write	
0x0309	reserved				Read-Write	
0x030A	functional mode	reserved			Read-Write	
0x030B					Read-Write	
0x030C	Heating/floor heating curve setting	Bit7-0 Heating Bit15-8 Floor Heating			Read-Write	
0x030D	Hot water/cooling curve settings	Bit7-0 Hot Water Bit15-8 Refrigeration			Read-Write	
0x030E	reserved parameters	Bit7-0 Heating Bit15-8 Floor Heating			Read-Write	
0x030F	reserved parameters	Bit7-0 Hot Water Bit15-8 Refrigeration			Read-Write	
0x0310	reserved parameters				Read-Write	
0x0311	reserved parameters				Read-Write	
0x0312	reserved parameters				Read-Write	
0x0313	Cooling setting curve	0-8 11-18		0	Read-Write	Communication protocol ⩾130 valid
0x0314	Heating setting curve	0-8 11-18		0	Read-Write	Communication protocol ⩾130 valid
0x0315	Sanitary hot water setting curve	0-4		0	Read-Write	Communication protocol ⩾130 valid
0x0316	Floor heating setting curve	0-8 11-18		0	Read-Write	Communication protocol ⩾130 valid

Curve description: 0: off / 1-8 high temperature curve 1-8 / 11-18 low temperature curve 1-8

5.User Order 0x0330～0x035F

Forced control of the unit, frequency/speed of forced control

Address	Parameter Name	Range		Default	Type	Note
0x0330	Crew control	Bit0	0		Read-Write	
		Bit1	0			
		Bit2	Fast heat mode			
		Bit3	Force into defrost			
		Bit4	System emptying mode			
		Bit5	Refrigerant recovery			
		Bit6	0			
		Bit7	0			
		Bit8	Forced heat kill			
		Bit9	0			
		Bit10	Allow water return			
		Bit11	0			

		Bit12	0			
		Bit13	Restore factory defaults			
		Bit14	0			
		Bit15	0			
0x0331	Load forced control	Bit0	Compressor Forced Control		Read-Write	
		Bit1	EEV forced control			
		Bit2	EVI forced control			
		Bit3	Fan forced control			
		Bit4	0			
		Bit5	0			
		Bit6	0			
		Bit7	0			
		Bit8	0			
		Bit9	0			
		Bit10	0			
		Bit11	0			
		Bit12	0			
		Bit13	0			
		Bit14				
0x0332	Compressor 1 forced frequency	0-120Hz			Read-Write	
0x0333	Compressor 2 forced frequency	0-120Hz			Read-Write	
0x0334		0			Read-Write	
0x0335		0			Read-Write	
0x0336	EEV1 forced on	0-500P			Read-Write	
0x0337	EEV2 forced on	0-500P			Read-Write	
0x0338		0			Read-Write	
0x0339		0			Read-Write	
0x033A	EVI1 forced on	0-500P			Read-Write	
0x033B	EVI2 forced open	0-500P			Read-Write	
0x033C		0			Read-Write	
0x033D		0			Read-Write	
0x033E	Fan motor forced speed	0-80Hz			Read-Write	
0x033F		0			Read-Write	
0x0340		0			Read-Write	
0x0341		0			Read-Write	
0x0342		0			Read-Write	
0x0343	DC water pump control	0 Automatic/1 Manual				
0x0344	DC water pump output	0-100%				
0x0345	PFC control	0 automatic/1 open/close/2 open				

6.Version information 0x0360～0x036F (Product model, custom version, software version,)					
Address	**Parameter Name**	**Range**	**Default**	**Type**	**Note**
0x0360	Program Version	10		Read-Only	V1.0.
0x0361	product type	0/1/2/3/4		Read-Only	
0x0362	product type identification number			Read-Only	
0x0363	Protocol version	100		Read-Only	V1.0.0

Note:
Product type: 0: Inverter commercial machine/1: Fixed frequency domestic machine/2: Commercial fixed frequency machine
Product Type Identification Number:
0: Inverter commercial machine: 0: Commercial inverter dual supply 1: Commercial inverter triple supply
1: Fixed frequency domestic machine: 0: Domestic fixed frequency
2: Fixed frequency commercial machine: 0: Fixed frequency commercial machine

11.Unit System Parameter L 0x0800～0x083F				
The parameter serial number starts at the L11; the L0-L10 remains unchanged				
Address	**Parameter Name**	**Range**	**Type**	**Note**
0x0800	Pipeline electric heating loading cycle	1～300min	RW	
0x0801	High temperature sterilization function	0～2	RW	
0x0802	Sterilization interval days	5～30 Day	RW	
0x0803	Sterilization start time	00:00-24:00	RW	
0x0804	Sterilization run time	0-50Min	RW	
0x0805	Sterilization temperature setting	50-80℃	RW	
0x0806			RW	
0x0807			RW	
0x0808			RW	
0x0809			RW	
0x080A			RW	
0x080B	Return water mode	0～3		0: Disabled / 1 continuous water return / 2 cycle water return / 3 temperature difference water return
0x080C	Return water set temperature	20～65℃		

0x080D	Return water temperature return difference	1～15℃		
0x080E	Return water cycle	**3**～90min		
0x080F	Return water time	1～30min		
0x0810	Heating Low Temperature Curve DIY	0～1	RW	0:Enable / 1:Disable
0x0811	Heating low-temperature curve coefficient k	0～-50	RW	Set temperature=k*（ambient temperature+15）+b
0x0812	Heating low-temperature curve constantb	30～80	RW	Set temperature=k*（ambient temperature+15）+b
0x0813	Heat production statistics(Calculate how much heat produce)	0～1	RW	0:Enable / 1:Disable
0x0814	External pump - flow rate	0～999	RW	L/min
0x0815	DHW electric heating power	0～9999	RW	W
0x0816	Pipe electric heating 1 power	0～9999	RW	W
0x0817	Pipe electric heating 2 power	0～9999	RW	W
0x0818	Space Heating electric heating power	0～9999	RW	W
0x0819	External pump - power	0～9999	RW	W
0x081A				

11. Coil address 0X1000-0X10FF
Access command 01H, 05H

Parameter Address	Parameter Name	Range	Type	Note
0x1000	Power mode		RW	
0x1001	Silent mode		RW	
0x1002	Reserved		RW	
0x1003	Reserved		RW	
0x1004	Reserved		RW	
0x1005	Reserved		RW	
0x1006	Reserved		RW	
0x1007	Reserved		RW	
0x1008	Reserved		RW	
0x1009	Reserved		RW	
0x100A	Reserved		RW	
0x100B	Reserved		RW	
0x100C	Reserved		RW	
0x100D	Reserved		RW	
0x100E	Reserved		RW	
0x100F	Reserved		RW	
0x1010	Reserved		RW	
0x1011	Reserved		RW	

0x1012	Quick heat mode		RW	
0x1013	Forced entry defrost		RW	
0x1014	System evacuation mode		RW	
0x1015	Refrigerant recovery		RW	
0x1016	Reserved		RW	
0x1017	Reserved		RW	
0x1018	Forced high temperature kill		RW	
0x1019	Reserved		RW	
0x101A	Allowed backwater		RW	
0x101B	Reserved		RW	
0x101C	Reserved		RW	
0x101D	Restore factory default value		RW	
0x101E	Reserved		RW	
0x101F	Reserved		RW	
0x1020	Compressor forced control		RW	
0x1021	EEV forced control		RW	
0x1022	EVI forced control		RW	
0x1023	Fan forced control		RW	
0x1024			RW	
0x1025			RW	
0x1026			RW	
0x1027			RW	
0x1028			RW	
0x1029			RW	
0x102A			RW	
0x102B			RW	
0x102C			RW	
0x102D			RW	
0x102E			RW	
0x102F			RW	