

Modbus Protocol

1. Communication using RS485 bus, asynchronous serial signal 1 start bit, 8 data bits, 1 end bit, no parity, baud rate 9600 bps.
2. Conforming to the standard Modbus RTU protocol, 16-bit data structure, 16-bit CRC checksum low byte in front high byte at the end.
3. Fixed address of 1.
4. Three commands are used for master-slave communication.

Command 03H (Query 1 or more registers)

Send command: [device address]+[command number 03H]+[start register address high 8 bits]+[low 8 b bits]+[number of registers read high 8 bits]+[low 8 bits]+[CRC parity low 8 bits]+[CRC parity high 8 bits]

Device response: [device address]+[command number 03H]+[Number of bytes returned]+[Data 1]+[Data 2]+...[Data N]+[low 8 bits of CRC checksum]+[high 8 bits of CRC checksum]

Command 06H(Modify a single register)

Send command: [device address]+[command number 06H]+[register address to be lowered than 8 bits]+[low 8 bits]+[lower data high 8 bits]+[low 8 bits]+[low 8 bits of CRC parity]+[high 8 bits of CRC parity]

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

Command 10H(modify multiple registers)

Send command: [Device address]+[command number 10H]+[start register address high 8 bits]+[low8 bits]+[number of registers high 8 bits]+[low 8 bits]+[number of register bytes]+[data 1 high 8 bytes]+[low 8 bits]+...[data N high 8 bits]+[low 8 bits]+[CRC checksum low 8 bits]+[CRC checksum high 8 bits]

Device response: [Device address]+[command number 10H]+[start register address high 8 bits]+[low 8 bits]+[register number high 8 bits]+[low 8 bits]+[low 8 bits of CRC parity]+[high 8 bits of CRC parity]

Notes on the use of protocol:

1. The upper unit access interval must be greater than 200MS. It's recommended to use commands that access multiple registers at once to save the number of communications.
2. The lower units receives the modification command and writes the memory chip. The upper unit must send the modification command(06H,10H) only when the parameters need to be modified, so that the memory chip is not damaged by too many writes.
3. The number of registers must not exceed 120 at any one time, in excess of which you will need to separate multiple accesses.

Parameter address (R means the parameter is read only, RW means the parameter is readable and writable).

Data Address	Data description	Settable range	Remarks
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RW 0x0000	Control flag 1		<p>Bit0: Switch on/off, 0 off/ 1 on</p> <p>Bit1: A41 main expansion valve mode selection, 0-automatic/1-manual</p> <p>Bit2: Manual frequency switch</p> <p>Bit3:</p> <p>Bit4: C01 thermostatic pump mode, 1-nonstop/0-stop</p> <p>Bit5:B01 Auxiliary expansion valve mode selection, 0-automatic/1-manual</p> <p>Bit6:A45 Expansion valve initial opening adjustment mode, 0-fixed/1-adjustable</p> <p>Bit7:</p>
RW 0x0001	Control flag 2		<p>Bit0: Constant temperature enabled or not.</p> <p>Bit1: C02 pressure sensor valid / invalid, 1-valid/0-invalid</p> <p>Bit2: B62 cooling auxiliary allowed/not allowed, 0-allowed on/ 1-not allowed on</p> <p>Bit3: B76 auxiliary electronic expansion valve control method, 0-enthalpy superheat / 1- exhaust superheat</p> <p>Bit4:Powerful Mode</p> <p>Bit5:Silent Mode</p> <p>Bit6: P22 heating target temp. auto-adjustment enable, 0-not enabled/ 1-enabled(only in heating mode, heating+hot water mode)</p> <p>bit7:</p>
RW 0x0002	Control flag 3		
RW 0x0003	Number of presses	1	
RW 0x0004	Mode	0-4	<p>Only heating:</p> <p>1. only heating</p> <p>Heating / hot water, without cooling:</p> <p>0: hot water only, 1 heating only, 3 hot water + heating</p> <p>Heating / cooling, without hot water:</p> <p>1 heating, 2 cooling.</p> <p>Heating / cooling / DHW:</p> <p>0: hot water, 1 heating, 2 cooling, 3 hot water+heating, 4. hot water+cooling</p>

RW 0x0005	P09 Defrosting frequency	30-120Hz	
RW 0x0006	P10 Defrosting period	20Min~90Min	
RW 0x0007	P12 Defrosting time	5Min~20Min	
RW 0x0008	A01 main expansion valve action cycle	20S~90S	
RW 0x0009	A14 heating main valve initial opening 00	0~240	Display multiplied by an coefficient of 2
RW 0x000A	A15 heating main valve initial opening 01	0~240	
RW 0x000B	A16 heating main valve initial opening 02	0~240	
RW 0x000C	A17 heating main valve initial opening 03	0~240	
RW 0x000D	A18 heating main valve initial opening 04	0~240	
RW 0x000E	A19 heating main valve initial opening 05	0~240	
RW 0x000F	A20 heating main valve initial opening 06	0~240	
RW 0x0010	A21 heating main valve initial opening 07	0~240	
RW 0x0011	A22 cooling main valve initial opening 00	0~240	
RW 0x0012	A23 cooling main valve initial opening 01	0~240	
RW 0x0013	A24 cooling main valve initial opening 02	0~240	
RW 0x0014	A25 cooling main valve initial opening 03	0~240	
RW 0x0015	A26 hot water main valve initial opening 00	0~240	
RW 0x0016	A27 hot water main valve initial opening 01	0~240	
RW 0x0017	A28 hot water main valve initial opening 02	0~240	
RW 0x0018	A29 hot water main valve initial opening 03	0~240	
RW 0x0019	A30 heating main valve automtic adjustment lower limit 00	0~240	
RW 0x001A	A31 heating main valve automtic adjustment lower limit 01	0~240	
RW 0x001B	A32 heating main valve automtic adjustment lower limit 02	0~240	
RW 0x001C	A33 heating main valve automtic adjustment lower limit	0~240	

	03		
RW 0x001D	A34 heating main valve automatic adjustment lower limit 04	0~240	
RW 0x001E	A35 heating main valve automatic adjustment lower limit 05	0~240	
RW 0x001F	A36 heating main valve automatic adjustment lower limit 06	0~240	
RW 0x0020	A37 heating main valve automatic adjustment lower limit 07	0~240	
RW 0x0021	A39 defrost main expansion valve opening	10~225	Display multiplied by a coefficient of 2
RW 0x0022	A40 minimum opening of main expansion valve for hot water mode	25~75	Display multiplied by a coefficient of 2
RW 0x0023	A42 manual steps for the main expansion valve	10~225	Display multiplied by a coefficient of 2
RW 0x0024	A43 main expansion valve superheat proportionality factor	1~20	
RW 0x0025	A44 differential coefficient of superheat of the main expansion valve	1~180	
RW 0x0026	B02 manual steps for auxiliary expansion valves	10~225	Display multiplied by a coefficient of 2
RW 0x0027	B04 Auxiliary expansion valve exhaust proportionality factor	1~20	
RW 0x0028	B05 Auxiliary expansion valve exhaust differential factor	0~180	
RW 0x0029	B06 Auxiliary expansion valve superheat proportionality factor	1~20	
RW 0x002A	B07 superheat for auxiliary expansion valve differential factor	0~180	
RW 0x002B	B08 Auxiliary expansion valve adjustment cycle	10~20	
RW 0x002C	B19 heating auxiliary valve initial opening 00	0~240	Display multiplied by a coefficient of 2
RW 0x002D	B20 heating auxiliary valve initial opening 01	0~240	
RW 0x002E	B21 heating auxiliary valve initial opening 02	0~240	
RW 0x002F	B22 heating auxiliary valve initial opening 03	0~240	
RW 0x0030	B23 heating auxiliary valve initial opening 04	0~240	
RW 0x0031	B24 heating auxiliary valve initial opening 05	0~240	
RW 0x0032	B25 heating auxiliary valve initial opening 06	0~240	
RW 0x0033	B26 heating auxiliary valve initial opening 07	0~240	
RW 0x0034	B27 hot water auxiliary valve initial opening 00	0~240	Display multiplied by a coefficient of 2

RW 0x0035	B28 hot water auxiliary valve initial opening 01	0~240	
RW 0x0036	B29 hot water auxiliary valve initial opening 02	0~240	
RW 0x0037	B30 hot water auxiliary valve initial opening 03	0~240	
RW 0x0038	B31 heating auxiliary valve automatic adjustment lower limit 00	0~240	Display multiplied by an coefficient of 2
RW 0x0039	B32 heating auxiliary valve automatic adjustment lower limit 01	0~240	
RW 0x003A	B33 heating auxiliary valve automatic adjustment lower limit 02	0~240	
RW 0x003B	B34 heating auxiliary valve automatic adjustment lower limit 03	0~240	
RW 0x003C	B35 heating auxiliary valve automatic adjustment lower limit 04	0~240	
RW 0x003D	B36 heating auxiliary valve automatic adjustment lower limit 05	0~240	
RW 0x003E	B37 heating auxiliary valve automatic adjustment lower limit 06	0~240	
RW 0x003F	B38 heating auxiliary valve automatic adjustment lower limit 07	0~240	
RW 0x0040	B39 Auxiliary valve opening during defrosting	0~240	Display multiplied by an coefficient of 2
RW 0x0041	B40 Auxiliary valve opening during cooling	0~240	Display multiplied by an coefficient of 2
RW 0x0042	C03 high pressure protection value	25.0~50.0 Bar	
RW 0x0043	C04 high pressure recovery value	25.0~50.0 Bar	
RW 0x0044	C05 low pressure protection value	0~20.0 Bar	
RW 0x0045	C06 low pressure recovery value	0~20.0 Bar	
RW 0x0046	D03 heating fan speed 1	0~100	
RW 0x0047	D04 heating fan speed 2	0~100	
RW 0x0048	D05 heating fan speed 3	0~100	
RW 0x0049	D06 heating fan speed 4	0~100	
RW 0x004A	D07 heating fan speed 5	0~100	
RW 0x004B	D08 heating fan speed 6	0~100	
RW 0x004C			
RW 0x004D			
RW 0x004E	D11 heating fan speed 1 corresponding to fan coil temp.	-30~30	

RW 0x004F	D12 heating fan speed 2 corresponding to fan coil temp.	-30~30	
RW 0x0050	D13 heating fan speed 3 corresponding to fan coil temp.	-30~30	
RW 0x0051	D14 heating fan speed 4 corresponding to fan coil temp.	-30~30	
RW 0x0052	D15 heating fan speed 5 corresponding to fan coil temp.	-30~30	
RW 0x0053	D16 heating fan speed 6 corresponding to fan coil temp.	-30~30	
RW 0x0054			
RW 0x0055			
RW 0x0056	D19 DC fan speed control cycle	10~180 seconds	
RW 0x0057	D20 fan adjust speed per cycle	0~100rpm	
RW 0x0058	D21 hot water fan speed 1	0~1000	
RW 0x0059	D22 hot water fan speed 2	0~1000	
RW 0x005A	D23 hot water fan speed 3	0~1000	
RW 0x005B	D24 hot water fan speed 4	0~1000	
RW 0x005C	D25 hot water fan speed 1 corresponding to fan coil temp.	-30~30	
RW 0x005D	D26 hot water fan speed 2 corresponding to fan coil temp.	-30~30	
RW 0x005E	D27 hot water fan speed 3 corresponding to fan coil temp.	-30~30	
RW 0x005F	D28 hot water fan speed 4 corresponding to fan coil temp.	-30~30	
RW 0x0060	D29 coolingDC Maximum fan speed 1	0~1000	
RW 0x0061	D30 coolingDC Maximum fan speed 2	0~1000	
RW 0x0062	D31 coolingDC Maximum fan speed 3	0~1000	
RW 0x0063	D32 coolingDC Maximum fan speed 4	0~1000	
RW 0x0064	B41 hot water auxiliary valve automatic adjustment lower limit 00	0~240	Display multiplied by an coefficient of 2
RW 0x0065	B42 hot water auxiliary valve automatic adjustment lower limit 01	0~240	
RW 0x0066	B43 hot water auxiliary valve automatic adjustment lower limit 02	0~240	
RW 0x0067	B44 hot water auxiliary valve automatic adjustment lower limit 03	0~240	
RW 0x0068	B45 enthalpy valve heating open exhaust temp. 00	50~125°C	

RW 0x0069	B46 enthalpy valve heating open exhaust temp. 01	50~125℃	
RW 0x006A	B47 enthalpy valve heating open exhaust temp. 02	50~125℃	
RW 0x006B	B48 enthalpy valve heating open exhaust temp. 03	50~125℃	
RW 0x006C	B49 enthalpy valve heating open exhaust temp. 04	50~125℃	
RW 0x006D	B50 enthalpy valve heating open exhaust temp. 05	50~125℃	
RW 0x006E	B51 enthalpy valve heating open exhaust temp. 06	50~125℃	
RW 0x006F	B52 enthalpy valve heating open exhaust temp. 07	50~125℃	
RW 0x0070	B53 enthalpy valve hot water open exhaust temp. 00	50~125℃	
RW 0x0071	B54 enthalpy valve hot water open exhaust temp. 01	50~125℃	
RW 0x0072	B55 enthalpy valve hot water open exhaust temp. 02	50~125℃	
RW 0x0073	B56 enthalpy valve hot water open exhaust temp. 03	50~125℃	
RW 0x0074	B57 enthalpy valve cooling open exhaust temp. 00	50~125℃	
RW 0x0075	B58 enthalpy valve cooling open exhaust temp. 01	50~125℃	
RW 0x0076	B59 enthalpy valve cooling open exhaust temp. 02	50~125℃	
RW 0x0077	B60 enthalpy valve cooling open exhaust temp. 03	50~125℃	
RW 0x0078	B61 enthalpy increase valve opening delay	0~180S	
RW 0x0079	B63 enthalpy increase valve closing exhaust return	0~30	
RW 0x007A	B64 auxiliary electronic expansion valve heating exhaust temp. difference 00	0~125℃	
RW 0x007B	B65 auxiliary electronic expansion valve heating exhaust temp. difference 01	0~125℃	
RW 0x007C	B66 auxiliary electronic expansion valve heating exhaust temp. difference 02	0~125℃	
RW 0x007D	B67 auxiliary electronic expansion valve heating exhaust temp. difference 03	0~125℃	
RW 0x007E	B68 auxiliary electronic expansion valve heating exhaust temp. difference 04	0~125℃	
RW 0x007F	B69 auxiliary electronic expansion valve heating exhaust temp. difference 05	0~125℃	
RW 0x0080	B70 auxiliary electronic expansion valve heating exhaust temp. difference 06	0~125℃	
RW 0x0081	B71 auxiliary electronic expansion valve heating exhaust temp. difference 07	0~125℃	
RW 0x0082	B72 auxiliary electronic expansion valve hot water	0~125℃	

	exhaust temp. difference 00		
RW 0x0083	B73 auxiliary electronic expansion valve hot water exhaust temp. difference 01	0~125℃	
RW 0x0084	B74 auxiliary electronic expansion valve hot water exhaust temp. difference 02	0~125℃	
RW 0x0085	B75 auxiliary electronic expansion valve hot water exhaust temp. difference 03	0~125℃	
RW 0x0086	B77 Target superheat correction value 1	-30~30℃	
RW 0x0087	B78 Target superheat correction value 2	-30~30℃	
RW 0x0088	B79 Target superheat correction value 3	-30~30℃	
RW 0x0089	B80 Target superheat correction value 4	-30~30℃	
RW 0x008A	B81 Target superheat correction value 5	-30~30℃	
RW 0x008B	B82 Target superheat correction value 6	-30~30℃	
RW 0x008C	B83 Target superheat correction value 7	-30~30℃	
RW 0x008D	P01 Temp difference of return water and cooling target temp	2~18℃	
RW 0x008E	P02 Temp difference of return water and hot water target temp	2~18℃	
RW 0x008F	P03 Hot water setting temp.	28~60℃	
RW 0x0090	P04 Cooling setting temp.	7~30℃	
RW 0x0091	P05 Heating setting temp.	15~50℃	
RW 0x0092	P08 Water temp. compensation	-5~15℃	
RW 0x0093	P11 Defrosting enter temp.	-15~-1℃	
RW 0x0094	P13 Defrost exit temp.	1~40℃	
RW 0x0095	P14 Defrosting environment and evaporator coil temp. difference 1	0~15℃	
RW 0x0096	P15 Defrosting environment and evaporator coil temp. difference 2	0~15℃	
RW 0x0097	P16 Ambient temp. for defrosting	0~20℃	
RW 0x0098	A02 main expansion valve heating target superheat 1	-5~10℃	
RW 0x0099	A03 main expansion valve heating target superheat 2	-5~10℃	
RW 0x009A	A04 main expansion valve heating target superheat 3	-5~10℃	
RW 0x009B	A05 main expansion valve heating target superheat 4	-5~10℃	

RW 0x009C	A06 main expansion valve heating target superheat 5	-5~10℃	
RW 0x009D	A07 main expansion valve heating target superheat 6	-5~10℃	
RW 0x009E	A08 main expansion valve heating target superheat 7	-5~10℃	
RW 0x009F	A09 main expansion valve heating target superheat 8	-5~10℃	
RW 0x00A0	A10 main expansion valve cooling target superheat 1	-5~10℃	
RW 0x00A1	A11 main expansion valve cooling target superheat 2	-5~10℃	
RW 0x00A2	A12 main expansion valve cooling target superheat 3	-5~10℃	
RW 0x00A3	A13 main expansion valve cooling target superheat 4	-5~10℃	
RW 0x00A4	A38 main expansion valve regulated exhaust temp.	70~125℃	
RW 0x00A5	B03 Enthalpy solenoid valve opening ambient temp.	11~45℃	
RW 0x00A6	B09 auxiliary expansion valve target exhaust temp.	70~120	
RW 0x00A7	B10 closed auxiliary expansion valve exhaust temperature	40~70	
RW 0x00A8	B11 heating auxiliary expansion valve target superheat 1	-10~10	
RW 0x00A9	B12 heating auxiliary expansion valve target superheat 2	-10~10	
RW 0x00AA	B13 heating auxiliary expansion valve target superheat 3	-10~10	
RW 0x00AB	B14 heating auxiliary expansion valve target superheat 4	-10~10	
RW 0x00AC	B15 heating auxiliary expansion valve target superheat 5	-10~10	
RW 0x00AD	B16 heating auxiliary expansion valve target superheat 6	-10~10	
RW 0x00AE	B17 heating auxiliary expansion valve target superheat 7	-10~10	
RW 0x00AF	B18 heating auxiliary expansion valve target superheat 8	-10~10	
RW 0x00B0	D01 AC fan speed switching ambient temp.	-10~50℃	
RW 0x00B1	D02 AC fan speed switching ambient temp.	-10~50℃	
RW 0x00B2	R16 Exhaust setting TP0	50~125℃	
RW 0x00B3	R17 Exhaust setting TP1	50~125℃	
RW 0x00B4	R18 Exhaust setting TP2	50~125℃	
RW 0x00B5	R19 Exhaust setting TP3	50~125℃	
RW 0x00B6	R20 Exhaust setting TP4	50~125℃	
RW 0x00B7	Manual frequency	15~120	
RW 0x00B8	R00 compressor operating frequency 1	30~120Hz	30 Hz (Default Value)

RW 0x00B9	R01 compressor operating frequency 2	30~120Hz	35 Hz (Default Value)
RW 0x00BA	R02 compressor operating frequency 3	30~120Hz	40 Hz (Default Value)
RW 0x00BB	R03 compressor operating frequency 4	30~120Hz	45 Hz (Default Value)
RW 0x00BC	R04 compressor operating frequency 5	30~120Hz	55 Hz (Default Value)
RW 0x00BD	R05 compressor operating frequency 6	30~120Hz	60 Hz (Default Value)
RW 0x00BE	R06 compressor operating frequency 7	30~120Hz	65 Hz (Default Value)
RW 0x00BF	R07 compressor operating frequency 8	30~120Hz	70 Hz (Default Value)
RW 0x00C0	R08 compressor operating frequency 9	30~120Hz	75 Hz (Default Value)
RW 0x00C1	R09 compressor operating frequency 10	30~120Hz	80 Hz (Default Value)
RW 0x00C2	R10 compressor operating frequency 11	30~120Hz	85 Hz (Default Value)
RW 0x00C3	R11 compressor operating frequency 12	30~120Hz	90 Hz (Default Value)
RW 0x00C4	R12 constant temperature operating frequency lower limit	30~120Hz	30 Hz (Default Value)
RW 0x00C5	R13 constant temperature operating frequency upper limit	30~120Hz	80 Hz (Default Value)
RW 0x00C6			
RW 0x00C7			
RW 0x00C8	R21 FM point lower limit 01	0~125Hz	125Hz (Default Value)
RW 0x00C9	R22 FM point lower limit 02	0~125Hz	125Hz (Default Value)
RW 0x00CA	R23 FM point lower limit 03	0~125Hz	125Hz (Default Value)
RW 0x00CB	R24 FM point lower limit 04	0~125Hz	125Hz (Default Value)
RW 0x00CC	R25 FM point upper limit 01	0~125Hz	125Hz (Default Value)
RW 0x00CD	R26 FM point upper limit 02	0~125Hz	125Hz (Default Value)
RW 0x00CE	R27 FM point upper limit 03	0~125Hz	125Hz (Default Value)
RW 0x00CF	R28 FM point upper limit 04	0~125Hz	125Hz (Default Value)
RW 0x00D0			
RW 0x00D1	Timing 1 starts hours	00~23	

RW 0x00D2	Timing 1 starts minutes	00~59	
RW 0x00D3	Timing 1 stops hours	00~23	
RW 0x00D4	Timing 1 stops minutes	00~59	
RW 0x00D5	Timing 2 starts hours	00~23	
RW 0x00D6	Timing 2 starts minutes	00~59	
RW 0x00D7	Timing 2 stops hours	00~23	
RW 0x00D8	Timing 2 stops minutes	00~59	
RW 0x00D9	Timing 3 starts hours	00~23	
RW 0x00DA	Timing 3 starts minutes	00~59	
RW 0x00DB	Timing 3 stops hours	00~23	
RW 0x00DC	Timing 3 stops minutes	00~59	
RW 0x00DD	Timing 4 starts hours	00~23	
RW 0x00DE	Timing 4 starts minutes	00~59	
RW 0x00DF	Timing 4 stops hours	00~23	
RW 0x00E0	Timing 4 stops minutes	00~59	
RW 0x00E1	Timing 5 starts hours	00~23	
RW 0x00E2	Timing 5 starts minutes	00~59	
RW 0x00E3	Timing 5 stops hours	00~23	
RW 0x00E4	Timing 5 stops minutes	00~59	
RW 0x00E5	Repeat timing selection		Bit0: Monday, 0 not allowed / 1 allowed Bit 1: Tuesday Bit2: Wednesday Bit3: Thursday Bit4: Friday Bit5: Saturday Bit6: Sunday
RW 0x00E6	P17 High temp. disinfection cycle days	0~30 days, no disinfection function when set to 0	
RW 0x00E7	P18 High temp. disinfection start time	0~23	
RW 0x00E8	P19 High temp. disinfection sustaining time	0~90min	
RW 0x00E9	P20 High temp. disinfection setting temp.	0~90°C	

RW 0x00EA	P21 Heat pump's setting temp. for high temp. disinfection	40~60°C	
RW 0x00EB	P23 Heating compensation temp. Point (ambient temp.)	0~40	
RW 0x00EC	P24 Target temp. compensation coefficient	1 to 30 (1 corresponds to actual 0.1)	
RW 0x00ED	P26 Electric heating turns on ambient temperature (Pipe heater)	-20-20°C	0
RW 0x00EE	R29 heating Powerful mode frequency increased	-30~30Hz	5
RW 0x00EF	R30 heating Silent mode maximum frequency	30~120Hz	70
RW 0x00F0	R31 cooling Powerful mode frequency increased	-30~30Hz	5
RW 0x00F1	R32 cooling Silent mode maximum frequency	30~120Hz	70
RW 0x00F2	Vacation mode set temperature		
RW 0x00F3	D08 Heating/Hot Water Silent Mode Max Fan Speed	0~1000	60
RW 0x00F4	D09 Cooling Silent mode maximum wind speed	0~1000	60
RW 0x00F5	Silent Timer enable flag		
RW 0x00F6	The first period of Silent timer is on for hours	00~23	
RW 0x00F7	The first period of Silent timer is on for minutes	00~59	
RW 0x00F8	The first period of Silent timer off hours	00~23	
RW 0x00F9	The first period of Silent timer off minutes	00~59	
RW 0x00FA	The second period of the Silent timer is open for hours	00~23	
RW 0x00FB	The second period of Silent timer is on for minutes	00~59	
RW 0x00FC	The second period of Silent timer off hours	00~23	
RW 0x00FD	The second segment Silent timer off minute	00~59	
RW 0x00FE	P27 water tank electric heating on delay	0-60	
RW 0x00FF	R14 Hot water mode compensation frequency	-50~20Hz	

R 0x8000	Reserved		
R 0x8001	Reserved		
R 0x8002	Reserved		
R 0x8003	Mode Selection	Bit0: whether there is hot water, 0 no/1 yes Bit1: Bit2: with or without heating, 0 without/1 with	

		Bit3: with or without cooling, 0 without/1 with Bit4: With or without DC fan 1, 0 without / 1 with Bit5: reserved Bit6: Reserved Bit7: Defrost	
R 0x8004	output flag 1	Bit0: compressor Bit1. Bit2. Bit3. Bit4. Bit5: Fans Bit6: four-way valve Bit7.	
R 0x8005	Output flag 2	Bit0:electric heating of the chassis Bit1. Bit2. Bit3. Bit4: Bypass valve Bit5:Electric heating for heat pump. Bit6: 3-way valve Bit7: Electric heating for water tank.	
R 0x8006	Output flag 3	Bit0: Circulation pump Bit1:Electric crankshaft heating Bit2. Bit3. Bit4. Bit5. Bit6. Bit7.	

R 0x8007	Fault flag 1	Bit0: Er 14 water tank temp. sensor fault Bit1: Er21 ambient temp. sensor fault Bit2: Er 16 evaporator coil temp. sensor fault Bit3. Bit4: Er27 outlet water temp. sensor fault Bit5: Er05 high pressure fault. Bit6. Ero6 low pressure fault. Bit7.	
R 0x8008	Fault flag 2	Bit0: Er03 water flow failure Bit1. Bit2: Er32 overheating water outlet temp. protection. Bit3. Bit4. Bit5. Bit6. Bit7.	
R 0x8009	Fault flag 3	Bit0: Bit1. Bit2: Bit3. Bit4. Bit5. Bit6: Er18 exhaust temp. fault. Bit7.	

R 0x800A	Fault flag 4	Bit0: Er15 Water inlet temp. sensor fault Bit1: Er 12 Exhaust temp too high protection Bit2: Er62 Inlet temp. fault of economizer Bit3: Er63 Outlet temp. failure of economizer Bit4. Bit5: Er23 Cooling outlet water temp. supercooling protection Bit6: Er 29Return gas temp. sensor fault Bit7.	
R 0x800B	Fault flag 5	Bit0: Er69 too low pressure protection. Bit1:Er70 too high pressure protection Bit2: Er33 Coil temp. too high Bit3: Er42 Cooling coil temp. sensor failure Bit4. Bit5. Bit6: Er68 High pressure switch failure Bit7: Er67 Low pressure switch failure	
R 0x800C	Fault flag 6	Bit0. Bit1: Bit2: Er26 Heat sink temp. fault Bit3: Er34 The temp. of frequency conversion module is too high Bit4: Secondary anti-freeze Bit5: level 1 anti-freeze Bit6. Bit7.	

R 0x800D	Fault flag 7	Bit0: Bit1: Bit2: Bit3: Bit4: Bit5: Er66 DC fan 2 fault Bit6: Er64 DC fan 1 fault Bit7: Er 65 Compressor current overcurrent protection	
R 0x800E	01 water inlet temp.		accuracy 0.1
R 0x800F	10 water tank temp.		accuracy 0.5
R 0x8010			
R 0x8011	03 ambient temp.		accuracy 0.5
R 0x8012	02 water discharge temp.		accuracy 0.5
R 0x8013	07 Inlet temp. of economizer		accuracy 0.5
R 0x8014	08 outlet temp. of economizer		accuracy 0.5
R 0x8015	05 return gas temp.		accuracy 0.5
R 0x8016	06 Evaporator coil temp.		accuracy 0.5
R 0x8017			
R 0x8018			
R 0x8019			

R 0x801A	09 cooling coil temp.		accuracy 0.5
R 0x801B	04 exhaust gas temp.		accuracy 0.5
R 0x801C	11 Opening of main expansion valve		
R 0x801D	12 enthalpy expansion valve opening		
R 0x801E	16 compressor actual frequency		
R 0x801F	Low eight bits of inverter fault		All are 0xff when the corresponding fault is reported
R 0x8020	High eight bits of inverter fault		
R 0x8021	15 DC bus voltage values		
R 0x8022			
R 0x8023			
R 0x8024	Target frequency		
R 0x8025	13 compressor current		

R 0x8026	19 Wind speed of DC fan 1		
R 0x8027			
R 0x8028	21 low pressure conversion temp.		
R 0x8029			