I. Composition of Modbus communication

In the Modbus bus structure, the air panel is used as a slave station to receive the control and query of the master station (PLC, touch screen, PC, etc.). The default address of the slave station is 1. To modify the address, you need to go through the remote controller, the wired controller and the upper computer of Midea. Wind disk supports broadcast code (that is, all wind disks on the bus can be operated at the same time through broadcast mode, but the wind disk will not reply data to the master station at this time);

Before use, it is necessary to preset the address of each fan disk, and the master station communicates through the address information of the addressing slave station. A slave that receives a command from the master performs the specified function and responds.

When multiple wind disks are connected to the same bus, the dialing addresses of any two wind disks must not be the same, otherwise the communication will be abnormal. (The connection mode is P to + and Q to-).

II. Communication Specifications

Interface: RS-485

Communication parameters:

- Baud rate-4800,9600,19200,38400 can be selected. The default is 9600.
- Data length: 8 bits
- Check: No Check
- Stop bit: 1 bit, 2 bit
- Communication protocol: Modbus reference (only supports RTU, not Modbus ASCII)

Default configuration: 9600, N, 8,1 (baud rate 9600, no parity, 8 data bits, 1stop bit).

(The fan panel can change the serial port configuration through the master station control according to the actual needs. Try not to change these parameters when you are not familiar with the fan disk. If the communication fails after the change, power on again and the communication is restored to the default configuration.

Appendix:

Table 1 Address mapping of registers in the fan panel

The following addresses can be used: 03H, 04H (read), 06H (write single register), 10H (write multiple holding registers)			
Data content	**Register address**	**Attribute**	**Remark**
Operation mode setting	1601 (PLC：41602)	RW	0 x00: Shutdown mode 0 x01: Supply Air Mode 0 x02: Cooling mode 0 x03: Heating mode 0 x04: Dehumidification mode 0 x05: Automatic mode When other parameters are set, the function code of abnormal data is returned. If only this register is written separately, Wind speed is set to stroke by default.
Set Temperature Set Ts	1602 (PLC：41603)	RW	It must be set within the normal temperature range. If the temperature exceeds the set range, the abnormal code 03 will be returned. Temperature setting range: 17-30 ℃ Ts cannot be set in air supply and dehumidification mode, and query Ts as 0
Wind speed setting	1603 (PLC：41604)	RW	0x02: Low wind (read the 1,2 wind corresponding to the 7th gear, and set the 1st gear corresponding to the 7th gear) 0x03: stroke (read the 3,4 gear corresponding to the 7th gear, and set the 4th gear corresponding to the 7th gear) 0x04: High wind (read the 5,6,7 wind corresponding to the 7th gear, and set the 7th gear corresponding to the 7th gear) 0 x05: Automatic wind Function code of returning abnormal data when setting other parameters
Timing boot time	1604 (PLC：41605)	RO	0 ~ 96 means no timing ~ 24 hours timing
Timed shutdown time	1605 (PLC：41606)	RO	0 ~ 96 means no timing ~ 24 hours timing
Indoor temperature T1	1606 (PLC：41607)	RO	0 to 240 represent -20 to 100 deg C Calculation method: (temperature + 5) * 2 + 30 T1 fault transmission 0x7FFF

Chilled water coil temperature T2-C	1607 (PLC：41608)	RO	0 to 240 represent -20 to 100 deg C Calculation method: (temperature + 5) * 2 + 30 T2-C fault transmission 0x7FFF	
Hot water coil temperature T2-H	1608 (PLC：41609)	RO	0 to 240 represent -20 to 100 deg C Calculation method: (temperature + 5) * 2 + 30 T2-H fault or two-pipe transmission 0x7FFF	
Indoor temperature T1	1609 (PLC：41610)	RO	Transmitted value = actual temperature value * 10 T1 fault transmission 0x7FFF	
Chilled water coil temperature T2-C	1610 (PLC：41611)	RO	Transmitted value = actual temperature value * 10 T2-C fault transmission 0x7FFF	
Hot water coil temperature T2-H	1611 (PLC：41612)	RO	Transmitted value = actual temperature value * 10 T2-H fault or two-pipe transmission 0x7FFF	
Lock flag	1612 (PLC：41613)	RO	Bit0	Remote Control Lock 1: Yes, 0: No
		RO	Bit1	00: Lockout shutdown or no lockout 01: Lock cooling, 10: Lock heating,
		RO	Bit2	
		RO	Except for the above three bits, all other bits in this byte are 0.	
Water pump status	1613 (PLC：41614)	RO	Bit0 Drain pump 1: on, 0: off	
		RO	Except for the above two bits, all other bits in this byte are 0. This byte is read-only.	
Wind disc fault status	1614 (PLC：41615)	RO	Bit14	Water level detection failure
		RO	Bit8	Wind speed detection is out of control
		RO	Bit7	EEPROM error
		RO	Bit4	T2B sensor failure
		RO	Bit3	T2A sensor failure
		RO	Bit2	Faulty T1 sensor
		RO	Except for the above two bits, all other bits in this byte are 0. This byte is read-only.	
Protection status	1615 (PLC：41616)	RO	Bit1	Cold air protection
		RO	Bit2	Hot-air protection
		RO	Bit3	Standby air turning on
		RO	Except for the above one bit, all other bits in this byte are 0. This byte is read-only.	
Reserved	1616		Reserved	

	(PLC：41617)		
Protection state 2	1617 (PLC：41618)	RO	Bit15: Capability is out of range; 0-none; 1-Yes Bit14：0 Bit13：0 Bit12：0 Bit11：0 Bit10：0 Bit9：0 Bit8：0 Bit7：0 Bit6：0 Bit5：0 Bit4：0 Bit3：0 Bit2: Remote shutdown; 0-No; 1-Yes Bit1: Temperature is out of range; 0-none; 1-Yes Bit 0: anti-freeze flag; 0 — no; 1 — Yes
Wind dial code information 1	1618 (PLC：41619)	RO	Bit15: Power-down memory selection; 0-yes; 1-No Bit14：0 Bit13：0 Bit12：0 Bit11：0 Bit10：0 Bit9：0 Bit8：0 Bit7：0 Bit6：0 Bit5：0 Bit4：0 Bit3: electric auxiliary heating selection; 0-electric auxiliary heating + hot water; 1-Electric auxiliary heating Bit2：0 Bit1：0 Bit0: 2/4 tube selection; 0-2 tube; 1 — 4 pipes
Wind dial code information 2	1619 (PLC：41620)	RO	Bit15：0 Bit14：0 Bit13：0 Bit 12: Fault Port Status Bit 11: Water pump port status Bit 10: Heating valve port status Bit 9: Refrigerating valve port status Bit8: status of electric auxiliary heating port Bit7：0 Bit6：0

			Bit 0 ~ Bit5: Address (0--63) (Read Only)	
Version information	1620 (PLC：41621)	RO	Displays the version number	
Heating return difference	1621 (PLC：41622)	RO	Heating return temperature, S16, 10 times magnification, 30, representing 3.0 ° C	
Refrigeration return difference	1622 (PLC：41623)	RO	Refrigeration return temperature, S16, 10 times magnification, 30, representing 3.0 ° C	
Air flow CFM	1623 (PLC：41624)	RO	CFM Cubic Feet Per Minute Nominal Air Code 1400 means 1400 CFM	
Baud rate	1640 (PLC：41641)	RW	The following baud rates are supported: 0:4800 1:9600 2:19200 3:38400	After changing the baud rate and stop bit, the next communication needs to correspond to the changed serial port configuration. Otherwise, the communication will be unsuccessful. After power-up, return to the default settings: 9600BPS /NO CHECK/ONE STOP
Check digit information	1641 (PLC：41642)	RO	No checksum: 0 x02 Cannot be changed	
Stop bit information	1642 (PLC：41643)	RW	One stop bit: 0 Two stop bits: 1	
Mailing address	1643 (PLC：41644)	RW	1-64 indicate actual communication addresses 1-64	

Note: RW read and write, RO read only.

Message reference:
Set temperature 24 ℃
PC Send: 01 06 06 42 00 18 29 5C
Wind disk reply: 01 06 06 42 00 18 29 5C