NB2 series Communication Document

NB2 product conforms to Modbus RTU communication protocol.

1.addresses and commands

(1) Address: factory default address 003, settable address range: 004-250, address 000 is the broadcast address

(2) Communication command: support 0x03,0x06,0x10,0x11 command

(3) 0x10 command, write address 0x0000, special command, please refer to 4. Special commands

2.Modbus communication protocol

Command	frame	Number of bytes	Description
0x03 Command	03 command to send a frame	1	device address
		1	Function code 0x03
		2	Starting address
		2	Number of registers to read (N)

		2	CRC16
	03 Command Normal Response Frame	1	device address
		1	Function code 0x03
		1	Number of bytes N (Nx2)
		Nx2	Data
		2	CRC16
	03 Error response	1	device address
		1	0x80+0x03 (0x80 indicates fault)
		1	Exception code
		2	CRC16
0x06 Command	06 Command Put	1	device address
		1	Function code 0x06
		2	the address of the register to be written to
		2	The value written to the
		2	CRC16
	06 Normal response	1	device address
		1	Function code 0x06
		2	Written register address
		2	Value of register
		2	CRC16

	06 Error response	1	device address
		1	0x80+0x06 (0x80 indicates fault)
		1	Exception code
		2	CRC16
0x10 command	10 Command Put	1	device address
		1	Function code 0x10
		2	the starting address to be written to
		2	Number of registers to write N
		1	Bytes (Nx2)
		Nx2	The data written to the
		2	CRC16
	10 Normal response	1	device address
		1	Function code 0x10
		2	the starting address of the write
		2	The number of registers written to
		2	CRC16
	10 Error response	1	device address
		1	0x80+0x10 (0x80 indicates fault)
		1	Exception code
		2	CRC16

0x11 command (used to read product information)	11 Command Put	1	device address
		1	Function code 0x11
		2	CRC16
	11 Normal response	1	device address
		1	Function code 0x11
		1	Data length N
		N	Data (see Modbus protocol table equipment information for details)
		2	CRC16
	11 Error response	1	device address
		1	0x80+0x11 (0x80 indicates fault)
		1	Exception code
		2	CRC16

Table 1 Command for sending and receiving commands

Parameter	Type	Unit	Read/ Write	Address	Remarks
Device Information (11 Command Feedback Information)					
product type	BYTE	—	R		Bit0-bit3: rated current 0000:6A 0001:10A 0010:16A 0011:20A

					0100:25A 0101:32A 0110:40A 0111:50A 1000:63A 1001:80A Bit4-7: Product type (Bit4: 1-with leakage protection, 0-without leakage protection) 0000: NB2_1P_40ZT 0001: NB2LE_1PN_40ZT (which description without “Auto”) 0002: NB2_1PN_80ZT 0003: NB2LE_1PN_80ZT 0004: NB2_3PN_80ZT 0005: NB2LE_3PN_80ZT 0007：NB2LE_1PN_40ZT (which description with “Auto”)
System time					
System time (year, month)	WORD	—	R	0x0000	Year: 0-99; Month: 1-12
System time (day, hour)	WORD	—	R	0x0001	Day:1-31; Hour:0-23
System time (minutes, seconds)	WORD	—	R	0x0002	Minutes:0-59; Seconds:0-59
Sensors					
Chip temperature	INT16	—	R	0x0003	

Status information (when read, not continuous with system time)					
working condition	BIT16	—	R	0x0020	bits 0-6 (reserved) bit7: switch position (1: close, 0: open) bit8: Over-undervoltage deadlock status bit9: Reserved bit10: Reserved bit11: Manual-Auto (1: Manual, 0: Auto) bits 12-15: (Reserved)
fault states	BIT16	—	R	0x0021	bit0: over-voltage bit1: under-voltage bit2: leakage bit3: overload bit4: Reserved bit5: Reserved bit6: phase-open bit7: over-frequency bit8: under-frequency bit9: loss of voltage
Early warning status	BIT16	—	R	0x0022	bit0: over-voltage bit1: under-voltage bit2: leakage bit3: overload bit4: Reserved bit5: Reserved bit6: phase-open bit7: over-frequency bit8: under-frequency bit9: loss of voltage

Voltage fault/ alarm value V1	UINT16	0.01V	R	0x0023		
Voltage fault/ alarm value V2	UINT16	0.01V	R	0x0024		
Voltage fault/ alarm value V3	UINT16	0.01V	R	0x0025		
Overload fault/ alarm value I1	UINT32	0.001A	R	0x0026 - 0x0027		
Overload fault/ alarm value I2	UINT32	0.001A	R	0x0028 - 0x0029		
Overload fault/ alarm value I3	UINT32	0.001A	R	0x002A - 0x002B		
leakage fault/ alarm value	UINT16	mA	R	0x002 C		
frequency fault/ alarm values	UINT16	0.01Hz	R	0x002 D		
Temperature fault /alarm values	INT16	℃	R	0x002E		
Electrical parameter information						
electrical parameters	Type	Precision	-	Address	single-phase parameters	three-phase parameters

L1 phase current	UINT32	0.001A	R	0x0040 - 0x0041	√	√
L2 phase current	UINT32	0.001A	R	0x0042 - 0x0043		√
L3 phase current	UINT32	0.001A	R	0x0044 - 0x0045		√
Reserved	—	—	R	0x0046 - 0x0047		
L1 phase voltage	UINT16	0.01V	R	0x0048	√	√
L2 phase voltage	UINT16	0.01V	R	0x0049		√
L3 phase voltage	UINT16	0.01V	R	0x004A		√
Reserved	WORD	—	R	0x004B		
Reserved	WORD	—	R	0x004 C		
Reserved	WORD	—	R	0x004 D		
total power factor	UINT16	0.01	R	0x004E		√
Frequency	UINT16	0.01Hz	R	0x004F	√	√
Leakage current	UINT16	mA	R	0x0050	√	√
L1 phase active power	INT32	0.01W	R	0x0051 - 0x0052	√	√
L2 phase active power	INT32	0.01W	R	0x0053 -		√

				0x0054		
L3 phase active power	INT32	0.01W	R	0x0055 - 0x0056		√
total active power	INT32	0.01W	R	0x0057 - 0x0058	√	√
total active electrical energy	UINT32	Wh	R	0x0059 - 0x005A	√	√
total reactive energy	UINT32	varh	R	0x005B - 0x005 C	√	√
Total apparent energy	UINT32	VAh	R	0x005 D- 0x005E	√	√
L1 phase reactive power	INT32	0.01var	R	0x005F - 0x0060	√	√
L2 phase reactive power	INT32	0.01var	R	0x0061 - 0x0062		√
L3 phase reactive power	INT32	0.01var	R	0x0063 - 0x0064		√
total reactive power	INT32	0.01var	R	0x0065 - 0x0066		√
L1 phase apparent power	INT32	0.01VA	R	0x0067 - 0x0068	√	√
L2 phase apparent power	INT32	0.01VA	R	0x0069		√

				- 0x006A		
L3 phase apparent power	INT32	0.01VA	R	0x006B - 0x006 C		√
total apparent power	INT32	0.01VA	R	0x006 D- 0x006E		√
L1 phase power factor	INT16	0.01	R	0x006F	√	√
L2 phase power factor	INT16	0.01	R	0x0070		√
L3 phase power factor	INT16	0.01	R	0x0071		√
Historical fault event logging						
Reason of 10th event	BIT16	—	R	0x0200	Event flag bit: bit 1: overload bit 2: overvoltage bit 3: undervoltage bit 4: remote opening bit 5: leakage current bit 6: phase failure bit 7: manual opening bit 8: over‑frequency bit 9: under‑frequency bit 10: reserved bit 11: reserved bit 12: voltage loss	
10th event time (year, month)	WORD	—	R	0x201		

10th event time (day, hour)	WORD	—	R	0x202	
10th event time (minutes, seconds)	WORD	—	R	0x203	
Status when the 10th event occurs	BIT16	—	R	0x204	Bit0: 1 closing, 0 opening Bit1: Whether the time has been calibrated when the event occurs
10th event value	BYTE[22]	—	R	0X205-0x20F	Different event causes correspond to different event values - Overvoltage, undervoltage, phase-open events: L1,L2,L3 【U16 ,0.01V】 - Overload events: I1，I2，I3 【U32 , 0.001A】 - Leakage, push-button test-trip, remote test-trip events: Leakage current [mA] - Over-frequency, under-frequency events: Frequency value [0.01Hz] - Over-temperature events: Temperature value [I16, ℃]
9th event information		—	R	0X210-0x21F	
8th event information		—	R	0X220-0x22F	
7th event information		—	R	0X230-0x23F	

6th event information		—	R	0X240-0x24F	
5th event information		—	R	0X250-0x25F	
4th event information		—	R	0X260-0x26F	
3rd event information		—	R	0X270-0x27F	
2nd event information		—	R	0X280-0x28F	
1st event information		—	R	0X290-0x29F	
Electrical life	UINT32	—	R	0x228-0x229	Unit: times Electrical life +1 for each trip
Leakage tripping life	UINT32	—	R	0x2A0-0x2A1	Unit: times Electrical life +1 for each leakage trip
Transposition event logging					

Reason of 10th transposition	UINT16	—	R	0x400	Trip (close->open): 0: No event 1: manually opening 2: Remote opening 3: overvoltage tripping 4: Undervoltage tripping 5: phase-open tripping 6: Overload tripping 7: short-circuit tripping 8: over-frequency tripping 9: under-frequency tripping

					10: Over-temperature tripping 11: Leakage tripping 12: push-button test-trip 13: Remote test-trip Closing (open->closed): 100: manual closing 101: remote closing 102: reclosing
10th transposition time (year, month)	WORD	—	R	0x401	
10th transposition time (day, hour)	WORD	—	R	0x402	
10th transposition time (minutes, seconds)	WORD	—	R	0x403	
L1 phase voltage before 10th change	UINT16	0.01V	R	0x404	
L2 phase voltage before 10th change	UINT16	0.01V	R	0x405	
L3 phase voltage before 10th change	UINT16	0.01V	R	0x406	
L1 phase current before 10th change	UINT16	0.1A	R	0x407	
L2 phase current before 10th change	UINT16	0.1A	R	0x408	
L3 phase current before 10th change	UINT16	0.1A	R	0x409	

L1/L2/L3 phase current direction before 10th change	BITS	—	R	0x40A	
Leakage current before 10th change	UINT16	mA	R	0x40B	
Frequency before 10th change	UINT16	0.01Hz	R	0x40C	
Temperature before 10th change	UINT16	℃	R	0x40D	
10th -- reserved	—	—	R	0x40E-0X40F	
9th transposition information	—	—	R	0x410-0x41F	Same as 10th transposition information
8th transposition information	—	—	R	0x420-0x42F	Same as 10th transposition information
7th transposition information	—	—	R	0x430-0x43F	Same as 10th transposition information
6th transposition information	—	—	R	0x440-0x44F	Same as 10th transposition information
5th transposition information	—	—	R	0x450-0x45F	Same as 10th transposition information
4th transposition information	—	—	R	0x460-0x46F	Same as 10th transposition information
3rd transposition information	—	—	R	0x470-0x47F	Same as 10th transposition information
2nd transposition information	—	—	R	0x480-0x48F	Same as 10th transposition information
1st transposition information	—	—	R	0x490-0x49F	Same as 10th transposition information

Additional functions					
List of additional functions 1	BIT16	—	R	0xD000	bit0: Whether to support LED blinking function bit1: whether the harmonic function is supported bit2: Whether the transposition event is supported
List of additional functions 2	BIT16	—	R	0xD001	Reserved
List of additional functions 3	BIT16	—	R	0xD002	Reserved
List of additional functions 4	BIT16	—	R	0xD003	Reserved
Configuration					
Modbus address	UINT16	—	R/W	0x0100	Setting range:004-250; 000: Broadcast address 003: (default address) 250: Super address (can be used for reading)
Modbus baud rate	UINT16	—	R/W	0x0101	0:1200bps 1:2400bps 2:4800bps 3:9600bps 4:19200bps(default) 5:115200bps
The check digit	UINT16	—	R/W	0x0102	0-without calibration 1-Even Check (default)
undervoltage action threshold	UINT16	V	R/W	0x0103	120-165
undervoltage action time	UINT16	second	R/W	0x0104	1--10

undervoltage return threshold	UINT16	V	R/W	0x0105	185-200
over-undervoltage recovery time	UINT16	second	R/W	0x0106	10-120
over-undervoltage action threshold	UINT16	V	R/W	0x0107	270-310
over-undervoltage action time	UINT16	second	R/W	0x0108	2--20
over-undervoltage return threshold	UINT16	V	R/W	0x0109	220-250
Leakage current action threshold	UINT16	mA	R/W	0x010A	20 - 30
Reservations	WORD	-	R/W	0x010B	Reserved
event enable	BIT16	—	R/W	0x010 C	bit0: overvoltage protection enable bit1: undervoltage protection enable bit2: phase-open protection enable bit3: overload protection enable bit4: Leakage protection enable [cannot be turned off by users]. bit5: over-frequency protection enable bit6: under-frequency protection enable bit7:reserved bit8:loss-of-voltage protection enable
Reserved	UINT	second	R/W	0x010 D	Reserved
Over-frequency action threshold	UINT16	0.01Hz	R/W	0x010E	0-6500
Over-frequency action time	UINT16	second	R/W	0x010F	1-10
Over-frequency recovery threshold	UINT16	0.01Hz	R/W	0x0110	0-6500
Under-frequency action threshold	UINT16	0.01Hz	R/W	0x0111	0-4500

Under-frequency action time	UINT16	second	R/W	0x0112	1-10
Under-frequency return threshold	UINT16	0.01Hz	R/W	0x0113	0-4500
over/under frequency return time	UINT16	second	R/W	0x0114	1-10
temperature alarm threshold	INT16	℃	R/W	0x0115	
temperature action threshold	INT16	℃	R/W	0x0116	
temperature return threshold	INT16	℃	R/W	0x0117	
Reserved	UINT16	—	R/W	0x118	
Reserved	UINT16	—	R/W	0X119	
Alarm Enable	BIT16	—	R/W	0X11A	bit0: overvoltage protection enable bit1: undervoltage protection enable bit2: phase-open protection enable bit3: overload protection enable bit4: Leakage protection enable [cannot be turned off by users]. bit5: over-frequency protection enable bit6: under-frequency protection enable bit7:reserved bit8:loss-of-voltage protection enable
BLE setting	BIT16	—	R/W	0X11B	Bit0: continuous broadcast enable bit1: Bluetooth write permission
Reserved	UINT	—	R/W	0x011C - 0x011F	Reserved
user asset code	BYTE[24]	—	R/W	0x0120 -	24 bytes

				0x12B	
User-defined settings	BYTE[24]	—	R/W	0x012c - 0x137	24 bytes
Mac Address	BYTE[6]	—	R	0x0138 -0x13A	6 bytes (read-only)
Reclose enable	BIT16	—	R	0X13B	Bit0: overvoltage enable bit1: undervoltage enable bit2: phase-open enable bit3: over-frequency enable bit4: under-frequency enable
Special command code (function code 0x10, address 0x0000, 2-byte command code)					
Time check	—	—	W	Special command code 0x0001	6-byte parameters Format: Year-Month-Day-Hour-Minute-Second, supports broadcasting
Remote Closing Allowed (unlocked)	—	—	W	0x0002	No parameters Support for broadcasting
Remote Closing Prohibited (Locked)	—	—	W	0x0003	No parameters Support for broadcasting
Restart the Bluetooth broadcast	—	—	W	0x0004	No parameters (broadcast only)
Set Modbus address according to Bluetooth MAC address	—	—	W	0x0005	8-byte parameter (broadcast only) Par [0-5]: Bluetooth MAC address Par [6-7]: new Modbus address

Remote Closing	—	—	W	0x0006	No parameters, support for broadcasting
Remote Opening	—	—	W	0x0007	No parameters, support for broadcasting
Initiate program upgrades	—	—	W	0x0008	OTA only
Restart the device after OTA	—	—	W	0x0009	OTA only
writing upgrade program information	—	—	W	0x000a	OTA only
Leakage test	—	—	W	0x000b	2-byte parameters. 0000: Leakage self-test (no trip) 0001: Leakage test trip (trip)
Set Modbus address according to asset code/SN code	—	—	W	0x000d	26-byte parameter (broadcast only) Par [0-23]: SN code/user asset code Par [24-25]: new Modbus address
LED flashes 10 times quickly	—	—	W	0x000E	No parameters
Maintain the open position (Locked out)	BYTE	—	W	0x0010	No parameters, support for broadcasting

(broadcasting) modifications Modbus address	BYTE	—	W	0x0011	2-byte parameter (broadcast only) parameter: new modbus address

3. communication examples

(1) Individual data reads

a. Read L1 voltage (address: 0x0048, data type: u16, unit: 0.01V)

--> 03 03 00 48 00 01 05 fe

<-- 03 03 02 55 ed 3e 99

Reading result: 55 ed, conversion to decimal: 21997=>219.97V

b. Read L1 current (address: 0x0040, data type: i32, 2 registers, unit: 0.001A)

--> 03 03 00 40 00 02 c4 3d

<-- 03 03 04 00 00 13 84 d4 a0

Reading result: 00 00 13 84, conversion to decimal: 4996=>4.996A

c. Read L1 active power (address 0x0051, data type u32, unit: 0.1W)

--> 03 03 00 51 00 02 94 38

<-- 03 03 04 00 00 2a f0 c6 d7

The reading result is: 00 00 2a f0, conversion to decimal system: 10992=>1099.2W

d. Read the total functional electric energy (address 0x0059, data type u32, unit Wh)

--> 03 03 00 59 00 02 15 fa

<-- 03 03 04 00 00 0c 71 1c d7

Reading result: 00 00 0c 71 , to decimal: 3185Wh, that is 3.1855KWh

e. Reading failure case: reading out of range address: such as address 0x0099

--> 03 03 00 99 00 01 55 c7

<-- 03 83 02 61 31

(2) individual data writes

a. Write the undervoltage action threshold (address 0x0103, range 120-165)

Change it to 150: (successful)

--> 03 06 01 03 00 96 f9 ba

<-- 03 06 01 03 00 96 f9 ba

Change it to 180: (Failed)

--> 03 06 01 03 00 b4 79 a3

<-- 03 86 03 a3 a1

(3) multiple data writes

a. Continuous write of undervoltage related parameters (address 0x0103 - 0x0105)

Write data: 00 96 00 04 00 c1

--> 03 10 01 03 00 03 06 00 96 00 04 00 c1 dd 7d

<-- 03 10 01 03 00 03 70 16

(4) 0x11 Command to read device information

--> 03 11 c1 4c

<-- 03 11 39 01 04 03 52 ff 02 00 01 01

Product type open/close state Software version Hardware version

30 30 30 30 30 31 30 34 30 33 35 32 32 31 30 39 31 37 30 30 30 30 30 30

SN code: 00000104035221091700000 0

00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

User defined information (corresponding to 0x012C-0x0137 content)

1c 3c

CRC16

(5) BIT16 type data modification

Following flow: Read Register -> Modify Variable Value -> Write Back to Register

Example: To disable overvoltage protection function:

--> 03 03 01 0c 00 01 44 17 Step 1: Read 0x10C and the result is 0x00FF

<-- 03 03 02 00 ff 81 c4 Step 2: Modify the bit corresponding to overvoltage to 0=>0x00FE

--> 03 06 01 0c 00 fe c8 57 Step 3: Write 0x10C as 0x00FE;

<-- 03 06 01 0c 00 fe c8 57

4. Special commands

Note: Command operations use the 0x10 command, write the address 0x0000, and write the data as special command code and parameters

Function	Broadcasting	number of registers	special command	command parameters
Time check	Support	4	0x0001	year-month-day-hour-minute-second
Remote Closing Allowed (Unlocked)	Support	1	0x0002	without
Remote Closing Prohibition (Lockout)	Support	1	0x0003	without
Restart the Bluetooth broadcast	Broadcast only	1	0x0004	without
Set Modbus address according to Bluetooth MAC address	Unsupported	5	0x0005	2-byte address
Remote Closing	Support	1	0x0006	without

Remote opening	Support	1	0x0007	without
Startup program upgrade (OTA only)	Unsupported	-	0x0008	
Device restart (OTA only)	Unsupported	-	0x0009	
Write upgrade program information (OTA only)	Unsupported	-	0x000A	
Leakage test	Unsupported	2	0x000B	0/1 (see example command for details)
Set Modbus address according to asset code/SN code	Broadcast only	14	0x000D	S N [24]+2-byte address
LED flashes quickly		1	0x000E	without
Maintain the open position	Broadcast only	1	0x0010	without
Modify Modbus Address via Broadcast	Support	2	0x0011	2-byte address

Table 3 Table of command for special functions

0x01 Timing

Timing via Broadcast: July 2, 2021, 8:16:32 (0001 150702081020)

--> 00 10 00 00 00 04 08 00 01 15 07 02 08 10 20 5c dd

No feedback

0x02 Remote closing allowed (unlocked)

Send separately:

--> 03 10 00 00 00 01 02 00 02 3e f1

<-- 03 10 00 00 00 01 00 2b

Send Broadcast:

--> 00 10 00 00 00 01 02 00 02 2a 01

No feedback

0x03 Remote closing prohibition (locking)

Send separately.

--> 03 10 00 00 00 01 02 00 03 ff 31

<-- 03 10 00 00 00 01 00 2b

Send Broadcast:

--> 00 10 00 00 00 01 02 00 03 eb c1

No feedback

0x04 Restart Bluetooth broadcast

Send Broadcast:

--> 00 10 00 00 00 01 02 00 04 aa 03

No feedback

0x05 Set Modbus address according to Bluetooth MAC address

Send Broadcast: (MAC address is "f5 95 b2 53 6a 9b", Modbus address is modified to 16)

--> 00 10 00 00 00 05 0a 00 05 f5 95 b2 53 6a 9b 00 10 97 6f

<-- 10 10 00 00 00 05 03 4b

0x06 Remote closing

Send separately: (Note: unlocked for proper execution)

--> 03 10 00 00 00 01 02 00 06 3f 32

<- - 03 90 04 ec 03 (locking status, execution failure, feedback error)

<- - 03 10 00 00 00 01 00 2b (unlock status, start closing)

Send Broadcast:

--> 00 10 00 00 00 01 02 00 06 2b c2

No feedback

0x07 Remote opening

Send separately:

--> 03 10 00 00 00 01 02 00 07 fe f2

<- - 03 90 04 ec 03 (locking status, execution failure, feedback error)

<- - 03 10 00 00 00 01 00 2b (unlock status, start opening)

Send Broadcast:

--> 00 10 00 00 00 01 02 00 07 ea 02

No feedback

0x08 Start program upgrade (/)

0x09 Device restart (/)

0x0A Write upgrade program information (/)

0x0B leakage test (the test result needs to query 0x0000 address register, which is only applicable to NB2LE-ZT)

Leakage test without tripping

--> 03 10 00 00 00 02 04 00 0b 00 00 89 d5

<-- 03 10 00 00 00 02 40 2a

Leakage test with tripping:

--> 03 10 00 00 00 02 04 00 0b 00 01 48 15

<-- 03 10 00 00 00 02 40 2a

0x0D Set Modbus address according to asset code/SN code

For example: SN: "00000104033220210702000 0", changed to address 8

--> 00 10 00 00 00 0e 1c 00 0d 30 30 30 30 30 31 30 34 30 33 33 32 32 30 32 31 30 37 30 32 30 30 30 30 00 08 76 87

<- - 08 10 00 00 00 0e 41 54 (return to the new address)

0x0E LED flashes

--> 03 10 00 00 00 01 02 00 0e 3e f4

<-- 03 10 00 00 00 01 00 2b

0x10 Keep the opening position (lock command, NB2 will be locked in the opening position and cannot be closed manually)

Send separately.

--> 03 10 00 00 00 01 02 00 10 be fc

<-- 03 10 00 00 00 01 00 2b

Send Broadcast:

--> 00 10 00 00 00 01 02 00 10 aa 0c

No feedback

0x11 Broadcast to modify Modbus address (broadcast only)

--> 00 10 00 00 00 02 04 00 11 00 0d 66 93

<-- 0d 10 00 00 00 02 41 04

5.broadcast-type directives

Broadcast command are special command, and the command that support broadcasting are:

1. Broadcast timing (reference Special command 0x01 for detailed)

2. Remote unlocking (reference Special command 0x02 for detailed)

3. Remote locking (reference Special command 0x03 for detailed)

4. Set the Modbus address according to the Bluetooth MAC address (reference Special command 0x05 for detailed)

5. Set Modbus address according to SN code/user asset code (reference Special command 0x0D for detailed)

6. Hold disengaged position (lockout command, reference Special command 0x10 for detailed)

7. Broadcast to modify Modbus address (reference Special command 0x11 for detailed)

6.A case - Modify Modbus address

(1) The current Modbus address is 03, changed to 100 (that is, 0x64)

--> 03 06 01 00 00 64 88 3f

<-- 64 06 01 00 00 64 80 28

(2) Known MAC address, via Special command 0x05, change Modbus address.

(3) Known device SN (obtain via Modbus command 0x11 reading), via Special command 0x0D, change Modbus address.

(4) Known user asset code (address 0x120-0x12b, 24-bytes), via Special command 0x0D, change Modbus address.

(5) Via Special command 0x11, change via broadcast (suitable for one-to-one change of Modbus address during installation)