

The example of read digital output status response,

Addr	Fun	Bytecount	Data	CRC16hi	CRC16lo
01H	01H	01H	01H	xxH	xxH

Data byte content (Relay 1 closed)

Addr	Fun	StartReg hi	StartReg lo	RegNum hi	RegNum lo	CRC16 hi	CRC16 lo
01H	01H	00H	01H	00H	01H	xxH	xxH

6.1.2 Relay control (Function code 05H)

Note that the control relay 0xFF00 is the relay closed, and the 0x0000 relay is open
Request data frame:

Addr	Fun	DOaddr hi	DO addr lo	Value hi	Value lo	CRC16 hi	CRC16 lo
01H	05H	xx	xx	FFH	00H	xxH	xxH

Response data frame:

Addr	Fun	DOaddr hi	DO addr lo	Value hi	Value lo	CRC16 hi	CRC16 lo
01H	05H	xx	xx	FFH	00H	xxH	xxH

6.2 System Parameter Reading And Writing

This area stores system parameters related to equipment work, including communication, password and other parameters, , wh ich can be read using Modbus protocol 03H function code, or set using 10H function code.

Addr	Parameter	Data range	Format
0000H	Protection password	0~9999	Word
0001H	Communication address	Modbus communication address: 1~247	Word
0002H	Baud rate	1 : 1200 , 2 : 2400 , 3 : 4800 , 4 : 9600 ,	Word
000CH	Clear energy	Command word 0x55AA, immediately clear the electric energy data	Word

6.3 Basic Measuring Parameters

Basic measurement area, mainly measuring basic voltage, current, power, power factor, etc.;

The parameters in this area are all real-time measurement parameters, which are read using Modbus-RTU protocol 03H function code and are read-only data. The data format is floating point data. The data in this area is real-time data for primary side.

Addr	Parameter	Data format	Unit
0030H	U	Floating point	V
0032H	I	Floating point	A
0034H	P	Floating point	W
0036H	Q	Floating point	var
0038H	S	Floating point	VA
003AH	PF	Floating point	
003CH	F	Floating point	Hz
0070H	Apparent demand	Floating point	VA

6.4 Multi-rate Parameter area

The parameters in this area are all real-time measurement parameters, which are read using Modbus protocol 03H function code and are read-only data,

0080H	Total active energy	Floating point	kWh
0082H	Import active energy	Floating point	kWh
0084H	Export active energy	Floating point	kWh
0086H	Total reactive energy	Floating point	kvarh
0088H	Import reactive energy	Floating point	kvarh
008AH	Export reactive energy	Floating point	kvarh
008CH	Total sharp active energy	Floating point	kWh
008EH	Total peak active energy	Floating point	kWh
0090H	Total flat active energy	Floating point	kWh
0092H	Total valley active energy	Floating point	kWh
0094H	Total sharp reactive energy	Floating point	kvarh
0096H	Total peak reactive energy	Floating point	kvarh
0098H	Total flat reactive energy	Floating point	kvarh
009AH	Total flat reactive energy	Floating point	kvarh
009CH	Total combined active energy for this month	Floating point	kWh
009EH	Total combined active energy of the previous 1 settlement day	Floating point	kWh
00A0H	Total combined active energy of the previous 2 settlement day	Floating point	kWh
00A2H	Total combined active energy of the previous 3 settlement day	Floating point	kWh
00A4H	Total combined active energy of the previous 4 settlement day	Floating point	kWh
00A6H	Total combined active energy of the previous 5 settlement day	Floating point	kWh
00A8H	Total combined active energy of the previous 6 settlement day	Floating point	kWh
00AAH	Total combined active energy of the previous 7 settlement day	Floating point	kWh
00ACH	Total combined active energy of the previous 8 settlement day	Floating point	kWh
00AEH	Total combined active energy of the previous 9 settlement day	Floating point	kWh
00B0H	Total combined active energy of the previous 10 settlement day	Floating point	kWh
00B2H	Total combined active energy of the previous 11 settlement day	Floating point	kWh
00B4H	Total combined active energy of the previous 12 settlement day	Floating point	kWh
00B6H	Total combined active energy for this month	Floating point	kvarh
00B8H	Total combined active energy of the previous 1 settlement day	Floating point	kvarh
00BAH	Total combined active energy of the previous 2 settlement day	Floating point	kvarh
00BCH	Total combined active energy of the previous 3 settlement day	Floating point	kvarh
00BEH	Total combined active energy of the previous 4 settlement day	Floating point	kvarh
00C0H	Total combined active energy of the previous 5 settlement day	Floating point	kvarh
00C2H	Total combined active energy of the previous 6 settlement day	Floating point	kvarh
00C4H	Total combined active energy of the previous 7 settlement day	Floating point	kvarh
00C6H	Total combined active energy of the previous 8 settlement day	Floating point	kvarh
00C8H	Total combined active energy of the previous 9 settlement day	Floating point	kvarh
00CAH	Total combined active energy of the previous 10 settlement day	Floating point	kvarh
00CCH	Total combined active energy of the previous 11 settlement day	Floating point	kvarh
00CEH	Total combined active energy of the previous 12 settlement day	Floating point	kvarh
00D0H	Sharp active energy for this month	Floating point	kWh
00D2H	Sharp active energy of the previous 1 settlement day	Floating point	kWh
00D4H	Sharp active energy of the previous 2 settlement day	Floating point	kWh
00D6H	Sharp active energy of the previous 3 settlement day	Floating point	kWh
00D8H	Sharp active energy of the previous 4 settlement day	Floating point	kWh
00DAH	Sharp active energy of the previous 5 settlement day	Floating point	kWh
00DCH	Sharp active energy of the previous 6 settlement day	Floating point	kWh
00DEH	Sharp active energy of the previous 7 settlement day	Floating point	kWh
00E0H	Sharp active energy of the previous 8 settlement day	Floating point	kWh
00E2H	Sharp active energy of the previous 9 settlement day	Floating point	kWh
00E4H	Sharp active energy of the previous 10 settlement day	Floating point	kWh
00E6H	Sharp active energy of the previous 11 settlement day	Floating point	kWh
00E8H	Sharp active energy of the previous 12 settlement day	Floating point	kWh

00EAH	Sharp reactive energy for this month	Floating point	kvarh
00ECH	Sharp reactive energy of the previous 1 settlement day	Floating point	kvarh
00EEH	Sharp reactive energy of the previous 2 settlement day	Floating point	kvarh
00F0H	Sharp reactive energy of the previous 3 settlement day	Floating point	kvarh
00F2H	Sharp reactive energy of the previous 4 settlement day	Floating point	kvarh
00F4H	Sharp reactive energy of the previous 5 settlement day	Floating point	kvarh
00F6H	Sharp reactive energy of the previous 6 settlement day	Floating point	kvarh
00F8H	Sharp reactive energy of the previous 7 settlement day	Floating point	kvarh
00FAH	Sharp reactive energy of the previous 8 settlement day	Floating point	kvarh
00FCH	Sharp reactive energy of the previous 9 settlement day	Floating point	kvarh
00FEH	Sharp reactive energy of the previous 10 settlement day	Floating point	kvarh
0100H	Sharp reactive energy of the previous 11 settlement day	Floating point	kvarh
0102H	Sharp reactive energy of the previous 12 settlement day	Floating point	kvarh
0104H	Peak active energy for this month	Floating point	kWh
0106H	Peak active energy of the previous 1 settlement day	Floating point	kWh
0108H	Peak active energy of the previous 2 settlement day	Floating point	kWh
010AH	Peak active energy of the previous 3 settlement day	Floating point	kWh
010CH	Peak active energy of the previous 4 settlement day	Floating point	kWh
010EH	Peak active energy of the previous 5 settlement day	Floating point	kWh
0110H	Peak active energy of the previous 6 settlement day	Floating point	kWh
0112H	Peak active energy of the previous 7 settlement day	Floating point	kWh
0114H	Peak active energy of the previous 8 settlement day	Floating point	kWh
0116H	Peak active energy of the previous 9 settlement day	Floating point	kWh
0118H	Peak active energy of the previous 10 settlement day	Floating point	kWh
011AH	Peak active energy of the previous 11 settlement day	Floating point	kWh
011CH	Peak active energy of the previous 12 settlement day	Floating point	kWh
011EH	Peak reactive energy of this month	Floating point	kvarh
0120H	Peak reactive energy of the previous 1 settlement day	Floating point	kvarh
0122H	Peak reactive energy of the previous 2 settlement day	Floating point	kvarh
0124H	Peak reactive energy of the previous 3 settlement day	Floating point	kvarh
0126H	Peak reactive energy of the previous 4 settlement day	Floating point	kvarh
0128H	Peak reactive energy of the previous 5 settlement day	Floating point	kvarh
012AH	Peak reactive energy of the previous 6 settlement day	Floating point	kvarh
012CH	Peak reactive energy of the previous 7 settlement day	Floating point	kvarh
012EH	Peak reactive energy of the previous 8 settlement day	Floating point	kvarh
0130H	Peak reactive energy of the previous 9 settlement day	Floating point	kvarh
0132H	Peak reactive energy of the previous 10 settlement day	Floating point	kvarh
0134H	Peak reactive energy of the previous 11 settlement day	Floating point	kvarh
0136H	Peak reactive energy of the previous 12 settlement day	Floating point	kvarh
0138H	Flat active energy for this month	Floating point	kWh
013AH	Flat active energy of the previous 1 settlement day	Floating point	kWh
013CH	Flat active energy of the previous 2 settlement day	Floating point	kWh
013EH	Flat active energy of the previous 3 settlement day	Floating point	kWh
0140H	Flat active energy of the previous 4 settlement day	Floating point	kWh
0142H	Flat active energy of the previous 5 settlement day	Floating point	kWh
0144H	Flat active energy of the previous 6 settlement day	Floating point	kWh
0146H	Flat active energy of the previous 7 settlement day	Floating point	kWh
0148H	Flat active energy of the previous 8 settlement day	Floating point	kWh
014AH	Flat active energy of the previous 9 settlement day	Floating point	kWh
014CH	Flat active energy of the previous 10 settlement day	Floating point	kWh
014EH	Flat active energy of the previous 11 settlement day	Floating point	kWh
0150H	Flat active energy of the previous 12 settlement day	Floating point	kWh

0152H	Flat reactive energy for this month	Floating point	kvarh
0154H	Flat reactive energy of the previous 1 settlement day	Floating point	kvarh
0156H	Flat reactive energy of the previous 2 settlement day	Floating point	kvarh
0158H	Flat reactive energy of the previous 3 settlement day	Floating point	kvarh
015AH	Flat reactive energy of the previous 4 settlement day	Floating point	kvarh
015CH	Flat reactive energy of the previous 5 settlement day	Floating point	kvarh
015EH	Flat reactive energy of the previous 6 settlement day	Floating point	kvarh
0160H	Flat reactive energy of the previous 7 settlement day	Floating point	kvarh
0162H	Flat reactive energy of the previous 8 settlement day	Floating point	kvarh
0164H	Flat reactive energy of the previous 9 settlement day	Floating point	kvarh
0166H	Flat reactive energy of the previous 10 settlement day	Floating point	kvarh
0168H	Flat reactive energy of the previous 11 settlement day	Floating point	kvarh
016AH	Flat reactive energy of the previous 12 settlement day	Floating point	kvarh
016CH	Volley active energy for this month	Floating point	kWh
016EH	Volley active energy of the previous 1 settlement day	Floating point	kWh
0170H	Volley active energy of the previous 2 settlement day	Floating point	kWh
0172H	Volley active energy of the previous 3 settlement day	Floating point	kWh
0174H	Volley active energy of the previous 4 settlement day	Floating point	kWh
0176H	Volley active energy of the previous 5 settlement day	Floating point	kWh
0178H	Volley active energy of the previous 6 settlement day	Floating point	kWh
017AH	Volley active energy of the previous 7 settlement day	Floating point	kWh
017CH	Volley active energy of the previous 8 settlement day	Floating point	kWh
017EH	Volley active energy of the previous 9 settlement day	Floating point	kWh
0180H	Volley active energy of the previous 10 settlement day	Floating point	kWh
0182H	Volley active energy of the previous 11 settlement day	Floating point	kWh
0184H	Volley active energy of the previous 12 settlement day	Floating point	kWh
0186H	Volley reactive energy for this month	Floating point	kvarh
0188H	Volley reactive energy of the previous 1 settlement day	Floating point	kvarh
018AH	Volley reactive energy of the previous 2 settlement day	Floating point	kvarh
018CH	Volley reactive energy of the previous 3 settlement day	Floating point	kvarh
018EH	Volley reactive energy of the previous 4 settlement day	Floating point	kvarh
0190H	Volley reactive energy of the previous 5 settlement day	Floating point	kvarh
0192H	Volley reactive energy of the previous 6 settlement day	Floating point	kvarh
0194H	Volley reactive energy of the previous 7 settlement day	Floating point	kvarh
0196H	Volley reactive energy of the previous 8 settlement day	Floating point	kvarh
0198H	Volley reactive energy of the previous 9 settlement day	Floating point	kvarh
019AH	Volley reactive energy of the previous 10 settlement day	Floating point	kvarh
019CH	Volley reactive energy of the previous 11 settlement day	Floating point	kvarh
019EH	Volley reactive energy of the previous 12 settlement day	Floating point	kvarh

7 Common Failure Analysis

No display after device is powered on

- Check whether the power supply voltage and other wiring are correct, and the power supply voltage should be within the working range;
 - Turn off the device and host computer, and then restart.
- The device does not work properly after power-on**
- Turn off the device and host computer, and then restart.
- Incorrect voltage or current reading**
- Check whether the wiring mode setting is consistent with the actual wiring method

The power or power factor is incorrect, but the voltage and current is correct

- Compare the voltage and current input of the actual wiring and the wiring diagram, and check whether the phase relationship is correct

RS-485 communication is abnormal

- Check whether the communication baud rate, ID and communication protocol settings of the host computer are consistent with the device;Please check whether the data bit, stop bit, check bit settings are consistent with the host computer

8 Product Quality Assurance

8.1 Quality Assurance

All new devices sold to users, within a certain number of years from the date of sale to users, are subject to free quality assurance for failures caused by defects in design, materials and workmanship. If the product is determined to meet the above warranty conditions, the supplier will repair and replace it free of charge.

The supplier may require the user to send the device back to the manufacturer to confirm whether the device is covered by the free warranty and repair the device.

8.2 Warranty Restrictions

The following devices are not covered by the free warranty:

- Damage caused by incorrect installation, use, and storage.
- Abnormal operation and application conditions beyond the product specifications.
- Devices repaired by organizations or persons not authorized by the company.
- Devices that have exceeded the free warranty period.

9 Contact Details

Henan Compere Smart Technology CO., LTD.

Telephone:+86-371-86181681

Fax:+86-371-67890037

Web:www.comperepower.com

Address:No.41, Dongming Road, Zhengzhou, Henan Province, China

The final interpretation of this manual is owned by Henan Compere Smart Technology Co.,Ltd.