EXternal MPPT Communication Ptotool modbus1.0

Communication Protocol Requirements

1. The date are arranged according to hights at the top and lows at the bottom
2. The entire packet length is no more that 50byte.
3. Only 0x03, 0x06 code used
4. Transmission method 485, Baud rate 2400 Check bit NONE, data bit 8, Stop bit 1
5. MODBUS communication protocol mode RTU CRC checksum calculation;

Operational Status data					
Communication attributes: read-only (Read all command: 01 03 00 00 00 14 45 c5)					
Send: device IP + function code + read first register address + data length + CRC checksum					
Return: device IP + function code + read out first register address + data length + data + CRC checksum					
Register Address	Numbers of data bytes	Unit	Remarks	Example	Description
00 00 (40001)	2	0x01-0x7f	IP Address	1	Address ID is 1
00 00 (40002)	2	0x01	Device type is MPPT Controller	1	
00 00 (40003)	2	0x00 normally off 0x01 normally on	DC output switching status	1	Normally on status
00 00 (40004)	2		Logo		
00 00 (40005)	2	%	System charging voltage percentage	100	100%
00 00 (40006)	2	0%	System charging voltage percentage		
00 00 (40007)	2	0 lead acid; 1 GEL; 2 Lifepo4; 3 Tenry; 4 user-defined	Battery type		
00 00 (40008)	2	0.1V	System set equaliztion voltage	144	14.4V
00 00 (40009)	2	0.1V	System set float voltage	140	14.0V
00 00 (40010)	2	0.1V	System set discharge limit voltage voltage	106	10.6V
00 00 (40011)	2	0.1A	System charging curent limit	600	60.0A
00 00 (40012)	2	0.1V	Photovoltaic input voltage	1600	160.0V
00 00 (40013)	2	0.1V	Charging voltage		
00 00 (40014)	2	0.1A	Charging current		
00 00 (40015)	2	0.1V	Battery Volatge		
00 00 (40016)	2	0.1A	DC output current		
00 00 (40017)	2	1 degree	Module temperature	35	35 degree
00 00 (40018)	2	1 degree	External battery temperature	30	30 degree
00 00 (40019)	4	1Wh	Electricity Generation	0x0034	(0x00345678) 3430.008kwh
00 00 (40020)				0x5678	

logo description(40004)

Bit	Fault and status information
1 bit	Excessive internal tmperature
2 bit	High battery temperature
3 bit	DC output overcurrent
4 bit	PV overvoltage
5 bit	PV voltage is too low
6 bit	Charging voltage is too high
7 bit	Fast charging
8 bit	Uniformly charging
9 bit	Float Charge
10 bit	Maxium power point tracking
11 bit	
12 bit	
13 bit	
14 bit	
15 bit	
16 bit	Standby

Modify data

Modify the device IP number: Register address (0000) Data is 1-127

Sens: Broadcast device (00) + function code (06) + write register address (00 00) + data + CRC checksum

Set address to 1 send : 00 06 00 00 00 01 49 db

Set address to 2 send: 00 06 00 00 00 02 09 da

Control DC output: register address (00 01). Data is 0 (off output) 1(on output

Send: Broadcast device (00) + function code (06) + write register address (00 01) + data + CRC checksum

Open Dc output sned: 00 06 00 01 00 01 18 1b

Turen of DC output send: 00 06 00 01 00 00 d9 db

Clear the total power generation: register address (00 02) data is 0xaa55

Send: Boradcast device (00) + function code (06) + write register address (00 02) + data + CRC checksum

Clear total power generation send: 00 06 00 02 aa 55 97 44