



QC-PM485 – Shorter User Manual

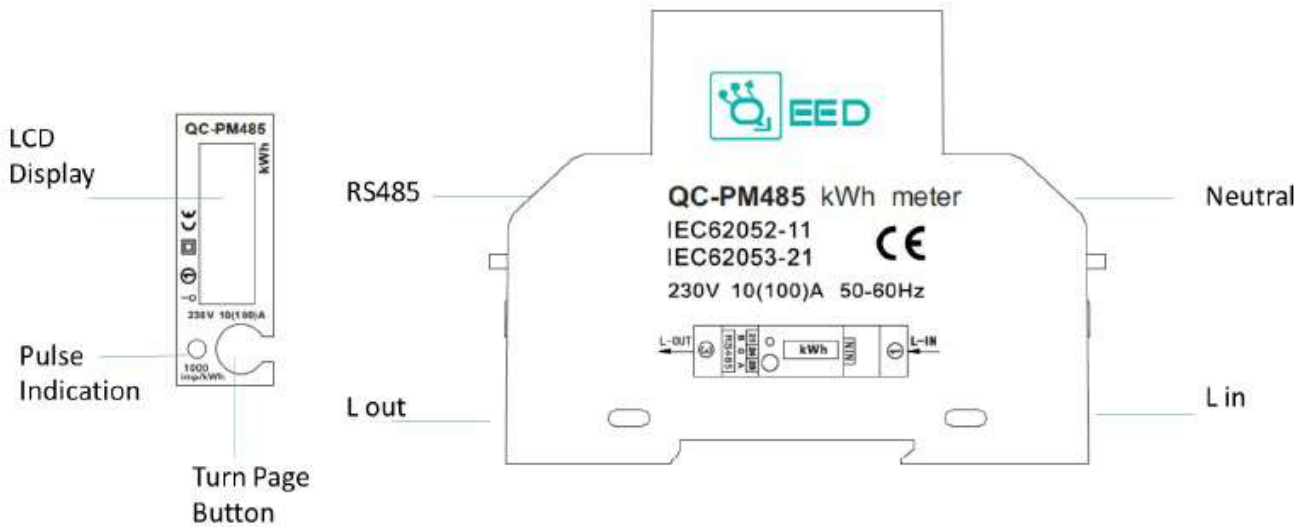
Technical Parameters

| | |
|---------------------------------|--------------------------------|
| Voltage: | 230V |
| Current: | 10(100)A |
| Accuracy class: | 1.0 |
| Standard: | IEC62052-11, IEC62053-21 |
| Frequency: | 50-60Hz |
| Impulse constant: | 1000imp/kWh |
| Display: | LCD 5+1 = 99999.9kW |
| Power consumption: | ≤8VA ≤0.4Wh |
| Starting current: | 0.004Ib |
| Temperature range: | -20~65°C |
| Flashing red: | Impulse indication, width=90ms |
| Average humidity value of year: | 75% |
| Maximal value: | 95% |

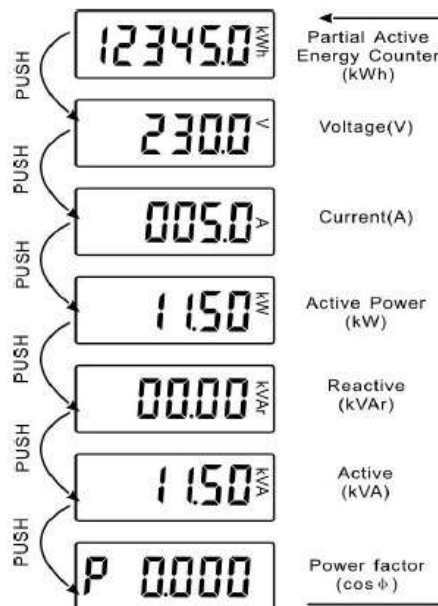
| |
|---------------------|
| lcd scrolling pages |
| Modbus ID |
| Baud rate |
| Parity |
| Energy Calculation |
| Scroll time |
| S0 output |
| Backlight |

| |
|--|
| kWh, V, A, kW, kVA _r , KVA, Cos Phi |
| 01 |
| 9600 |
| 8 bits NONE |
| active and reactive energy measurement |
| 5s |
| 1000imp/kWh |
| blue |

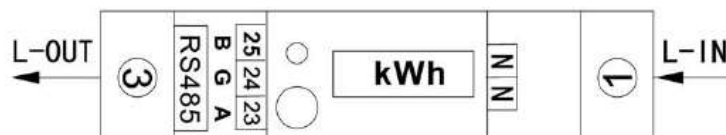
Description



Parameters show on the LCD screen



Connection Diagram



Note: 23.24.25 are corresponding to A,G,B. If RS485 transverter does not have G port, it's OK to disconnect it. The Neutral wire can be connected to one of N ports or both.

To configure the device please use the free software for QC-PM485. Download it from www.qeed.it

Register map

| Register Name | Description | Register Type | R/W | Default | Modbus Address |
|-----------------|---|----------------|-----|----------|----------------|
| Voltage | devide by 10 to read V (91F = 2335 = 233,5V) | unsigned short | R | - | 40000 |
| Current | devide by 10 to read A | unsigned short | R | - | 40001 |
| Frequency | | unsigned short | R | - | 40002 |
| Active power | result is W – device by 1000 to get kW | unsigned short | R | - | 40003 |
| Reactive power | result is VAR – device by 1000 to get KVAR | unsigned short | R | - | 40004 |
| Apparent power | result is VA – device by 1000 to get KVA | unsigned short | R | - | 40005 |
| Power factor | | unsigned short | R | - | 40006 |
| Active energy | devide by 100 to get kW / 5 blocks of 4 byte / Total ; T1 ; T2 ; T3 ; T4 | unsigned long | R/W | - | 40007 |
| Reactive energy | devide by 100 to get kW / 5 blocks of 4 byte / Total ; T1 ; T2 ; T3 ; T4 | unsigned long | R/W | - | 40011 |
| Baud rate | 01 = 1200 ; 02 = 2400 ; 03 = 4800 ; 04 = 9600 | unsigned short | R/W | 04 | 4002a |
| Meter ID | 000 = broadcast ; meter ID between 1 – 247 | unsigned short | R/W | 001 | 4002b |
| Password | Reset password and write within 10 seconds the command for change meter ID or reset active energy or change the baud rate | unsigned short | W | 00000000 | 4002c |

Example reading/writing

read voltage

write 01 03 00 00 00 01 [CRC16]
 received from meter 01 03 02 08 c0 [bf d4]

01 = meter address
 03 = read command
 02 = data blocks
 08 c0 = 2240 = 224,0 V

read active energy

write 00 03 00 07 00 0A [CRC16]
 received from meter 01 03 14 00 00 04 D2 00 00 04 D2 00 00 00 00 00 00 00 00 00 00 00 00 00 00 [23 D8]

01 = meter address
 03 = read command
 14 = data blocks
 00 00 04 D2 = 1234 (= 12,34kWh) for total active energy
 00 00 04 D2 = 1234 (= 12,34kWh) for active energy T1
 00 00 00 00 = 0000 (= 0,00kWh) for active energy T2
 00 00 00 00 = 0000 (= 0,00kWh) for active energy T3
 00 00 00 00 = 0000 (= 0,00kWh) for active energy T4

reset active energy

write 01 28 FE 01 00 02 04 00 00 00 00 [CRC16]
 received from meter 01 28 FE 01 00 01 [C0 24]

enter this energy reset line within 10 seconds after password reset

write 01 10 00 07 00 0A 14 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 [CRC16]
 received from meter 01 10 03 4C 00 0A [81 9D]

Change meter ID

write 01 28 FE 01 00 02 04 00 00 00 00 [CRC16]
 received from meter 01 28 FE 01 00 01 [C0 24]

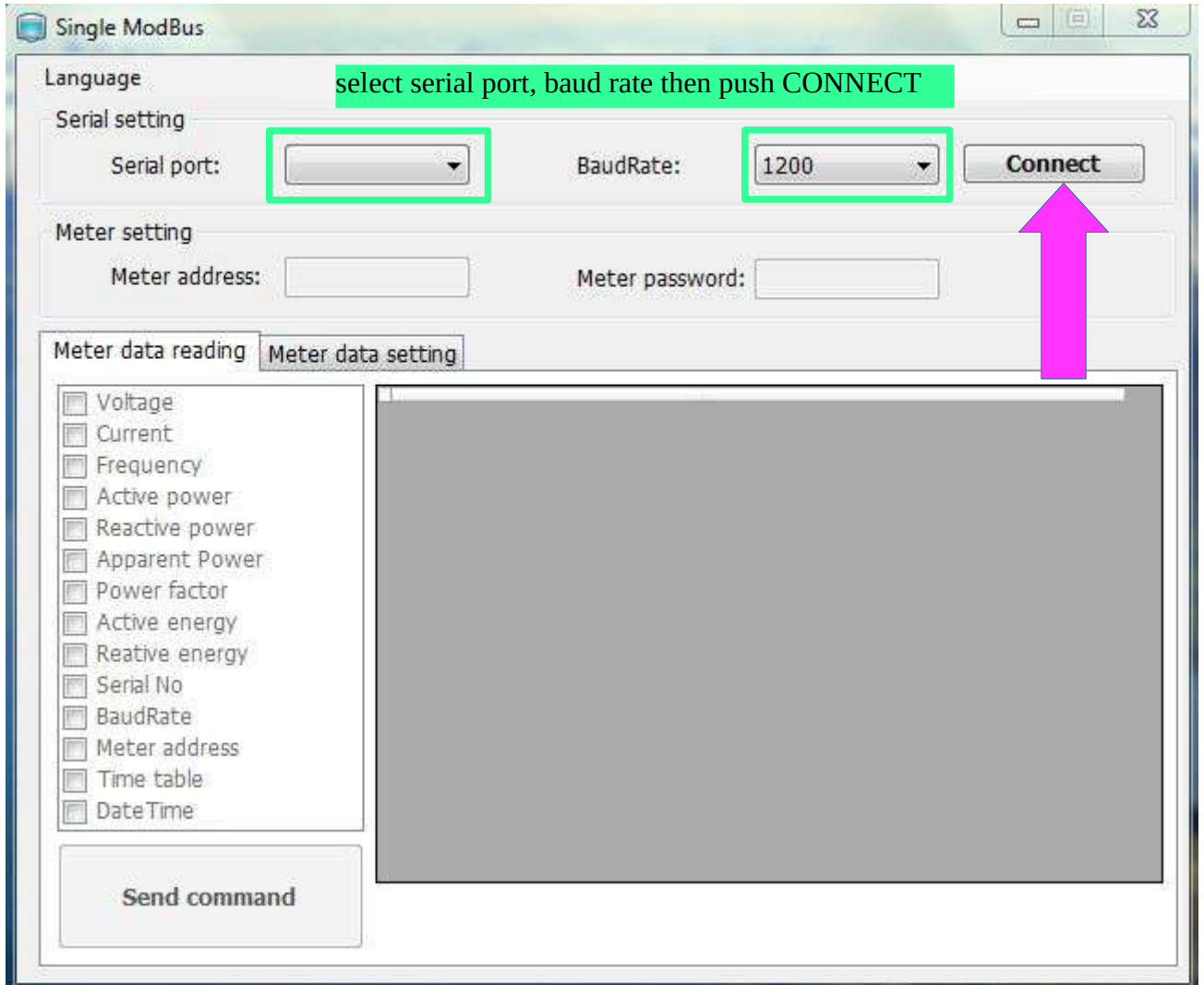
enter this energy reset line within 10 seconds after password reset

write 01 10 00 2b 00 01 02 00 01 [CRC16] (HEX format)
 received from meter 01 10 00 2b 00 01 [71 c1]



Modbus-Single _ configuration software

Connection



Reading mode

The screenshot shows the 'Single ModBus' application window. The 'Serial setting' section includes 'Serial port: COM11' and 'BaudRate: 9600', with a 'Close serial' button. The 'Meter setting' section has 'Meter address: 01' and 'Meter password: 00000000', both highlighted with green boxes. A green text box above these fields says 'set the meter ID (HEX format) and insert the password'. The 'Meter data reading' tab is active, showing a list of data types: Voltage (checked), Current, Frequency, Active power, Apparent Power, Power factor, Active energy (highlighted), Reactive energy, Serial No, BaudRate, Meter address, Time table, and DateTime. A green arrow points to the 'Active energy' option, and a green text box says 'tap what you want read'. A 'Send command' button is highlighted with a pink arrow. The data display area shows 'Voltage 230,4 V'. A red text box at the bottom right says 'Communication success'.

Language

Serial setting

Serial port: COM11 BaudRate: 9600 **Close serial**

Meter setting

Meter address: 01 Meter password: 00000000

set the meter ID (HEX format) and insert the password

Meter data reading Meter data setting

Voltage
 Current
 Frequency
 Active power
 Apparent Power
 Power factor
 Active energy
 Reactive energy
 Serial No
 BaudRate
 Meter address
 Time table
 DateTime

tap what you want read

Send command

Voltage 230,4 V

Communication success

Setting mode

Single ModBus

Language

Serial setting

Serial port: COM11 BaudRate: 9600 **Close serial**

Meter setting

Meter address: 01 Meter password: 00000000

Meter data reading Meter data setting

Clear the active energy BaudRate 1200

Clear the reactive energy Meter Address **HEX format**

Serial No Meter Password

Time table Datetime Manual

00:00 00 00:00 00 2019-05-23 14:49:20

00:00 00 00:00 00

Send command

Before disconnect the device, close serial port pushing the button

Close serial

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