

KINGSINE MODBUS-RTU, RS485 PMC100N Single Phase Network Power Meter



- Single phase electric parameter measurement and energy metering
- On-line monitoring of electric parameter limit alarm
- Network meter without LCD operation panel, optional transducer function output
- Support MODBUS-RTU, RS485 communication

Overview

PMC100N single phase network power meter is a multifunctional network meter without LCD operation panel. It adopts low power dissipation microprocessor, can measuring complete power parameter, energy measurement. It has RS-485 communication port and could be easily integrated to any intelligent power distribution system. PMC180N has the practical function, easy use, easy maintenance. It can use to monitor and control of the on-site equipment, supply the measuring & testing support to the power application specialist, supply the data base to the SCADA and Smart Grid, provide scientific basis for intelligent energy management.

Function Features

| Function Features | PMC100 Z | PMC100 C | PMC100 P | PMC100 F | PMC100 U | PMC100 OI | PMC100 N |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Instantaneous real virtual value | | | | | | | |
| current | ◆ | | ◆ | | | ◆ | ◆ |
| voltage | ◆ | | ◆ | | ◆ | | ◆ |
| frequency | ◆ | | | ◆ | | | ◆ |

| | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|
| active power | ◆ | | ◆ | | | | ◆ |
| reactive power | ◆ | | | | | | ◆ |
| power factor | ◆ | ◆ | | | | | ◆ |
| Energy | | | | | | | |
| active energy | ◆ | | | | | | ◆ |
| Communication | | | | | | | |
| RS485 /MODBUS protocol | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| Display | | | | | | | |
| LED display | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | |
| other | | | | | | | |
| 2 channel DI | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | |
| 2 channel DO | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | |
| 1 channel AO :4-20mA | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | |
| 2 channel limits alarm | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |
| support program online upgrade | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ | ◆ |

Technical parameter

| | | |
|-------------------------------|-------------------|-----------------------------------|
| Electrical Characteristics | | |
| Measurement Type | | single phase AC system |
| | | Sampling rate per cycle: 64 times |
| Data refresh rate | | 1S |
| Measurement Accuracy | Current | 0.2% |
| | Voltage | 0.2% |
| | Power | 0.5% |
| | Frequency | 0.05Hz |
| | Active Energy | 1.0% |
| Input voltage characteristics | Measuring voltage | 0~600 V (Direct Access) |
| | Allowed overload | 1.2 times / continuous |
| | Input impedance | 1.8MΩ |
| Input current characteristic | Measuring current | 5A or 1A (Via CT Connect) |
| | Allowed overload | 1.2 times / continuous |
| | Input impedance | <0.1Ω |
| Binary input | Working voltage | 12~24 VDC external power supply) |

| | | |
|--------------------------------------|----------------------|------------------------------|
| | Input impedance | 12K Ω |
| | Isolation voltage | 2KV |
| Relay output | Node Type | Mechanical shock |
| | Node capacity | 220 VAC/5A, 30 VDC/5A |
| 4-20mA AC input | Open circuit voltage | 5VDC |
| | overload capacity | $\leq 200\Omega$ |
| | Isolation voltage | 2KV |
| | AC | 85~265 VAC/45-65Hz |
| | DC | 100~300 VDC |
| | Power dissipation | < 2.5W |
| Mechanical properties | | |
| Weight | | 0.3kg |
| IP protection grade | | IP52 |
| Size | | 75 X 55 X120 mm |
| Operating temperature | | -25~70 $^{\circ}$ C |
| Storage Temperature | | -40~85 $^{\circ}$ C |
| Relative Humidity | | 5% - 90%RH, No condensation |
| EMC | | |
| Electrostatic discharge interference | | IEC 61000-4-2, Level 4 |
| Group of anti-fast transient pulse | | IEC 61000-4-4, Level 4 |
| Anti-impact | | IEC 61000-4-5, Level 3 |
| Anti-frequency magnetic field | | IEC 61000-4-8, Level 3 |
| Electrical insulation performance | | |
| Insulation resistance | | GB/T13729, >50M Ω |
| Frequency withstand voltage | | GB/T13729, AC 2KV 50Hz /1min |
| Impulse voltage | | GB/T13729, 5KV, 1.2/50us |