

Multifunction Power meters is a smart Panel meter suitable for Monitoring Power for use in control panels & control functions in single phase 3wire & single phase systems, 3 ϕ 3wire & 3 ϕ 4wire systems. It can measure multiple Electrical parameters such as Voltage, Current, Power factor, Harmonics, Power & Energy in R-Y-B phases. It is equipped with Rs485 communication interface through MODBUS-RTU protocol to transfer the electrical parameters real-time transmission to the system data center.

NEW



Preliminary Data

GENERAL SPECIFICATIONS :

- **System** : 3P4W 4CT, 3P4W 3CT, 3P3W 3CT, 3P3W 2CT, 1P3W, 1P2W.
- **Application** : Power Analysis, Energy Management.
- **Display** : 4 Digit LCD Display
- **Size** : 96 x 96 mm
- **FUNCTIONS** :
 - **Current Input** : 0 ~ 5AAC (max. 7A)
 - **Measuring Range** : Varies with instrument transformer parameters
 - **Voltage measurement** : 0 - 600V AC phase voltage
 - **Max measurement** : 720V AC phase voltage
- **OUTPUT SIGNAL** :
 - **Relay output** : One electromagnetic relay output, contact capacity: 3A 30V DC, 3A 250V AC
 - **Digital input** : 2 dry contact inputs, optocoupler isolated (5KVrms)
- **COMMUNICATION** :
 - **RS485** : One RS485 communication interface, Interface Type: two-wire half-duplex
Communication rate: 2400bps~115200bps
Specification: Modbus-RTU
- **DATA DISPLAY**
 - **Instantaneous Value** :
 - **Phase voltage** : U1,U2,U3,AVG ▪ **Line voltage** : U12,U23,U31,AVG
 - **Current** : I1,I2,I3,AVG,I_n ▪ **Grid frequency** : F1,F2,F3,Σ (Total)
 - **Power factor PF** : PF1,PF2,PF3,Σ(Total)
 - **Displacement Power factor DPF** : DPF1, DPF2, DPF3, Σ(Total)
 - **Active power** : P1,P2,P3,Σ(Total)
 - **Reactive power** : Q1,Q2,Q3,Σ(Total)
 - **Apparent power** : S1,S2,S3,Σ(Total)
- **ENERGY** :
 - **Active Energy Import** : EP1, EP2, EP3, Σ(Total) When the total Energy reaches 1.0×10^9 kWh, the energy of each phase will automatically clear to zero.
 - **Active Energy Export** : EP1, EP2, EP3, Σ(Total) When the total Energy reaches 1.0×10^9 kWh, the energy of each phase will automatically clear to zero.
 - **Reactive Energy Import** : EQ1, EQ2, EQ3, Σ(Total) When the total Energy reaches 1.0×10^9 kVARh, the energy of each phase will automatically clear to zero.
 - **Reactive Energy Export** : EQ1, EQ2, EQ3, Σ(Total) When the total Energy reaches 1.0×10^9 kVARh, the energy of each phase will automatically clear to zero.
 - **Apparent Energy** : ES1, ES2, ES3, Σ(Total) When the total Energy reaches 1.0×10^9 kVAh, the energy of each phase will automatically clear to zero.
 - **Tariff Energy** : ET1, ET2, ET3, ET4, ET5, ET6 When Energy reaches 1.0×10^9 kWh, Energy automatically clears to zero.

HARMONICS :

- **Voltage Harmonic %** : Total harmonics (U1, U2, U3), odd total harmonics (U1, U2, U3), even total harmonics (U1, U2, U3)
Fractional harmonics of order 1-50 (U1, U2, U3)
- **Current Harmonic %** : Total harmonics (I1, I2, I3), odd total harmonics (I1, I2, I3), even total harmonics (I1, I2, I3),
K factor (I1, I2, I3) Fractional harmonics of order 1-50 (I1, I2, I3)
- **Voltage harmonic value** : Total harmonics (U1, U2, U3)
Fractional harmonics of order 1-50 (U1, U2, U3)
- **Current harmonic value** : Total harmonics (U1, U2, U3)
Fractional harmonics of order 1-50 (U1, U2, U3)

PHASE DIAGRAM

- **Phase Sequence** : Voltage, current ▪ **Voltage Angle** : U1,U2,U3
- **Current Angle** : I1, I2, I3 ▪ **Voltage & Current Angle** : U1I,U12,U13

DEMAND

- **Demand** : Total Active power, Total Reactive power, Total Apparent power
- **Total Active Power demand max** : Maximum demand and time
- **Total Reactive Power demand max** : Maximum demand and time
- **Total Apparent Power demand max** : Maximum demand and time

UNBALANCE

- **Voltage unbalance** : Negative order, zero order
- **Current unbalance** : Negative order, zero order

MAX.&MIN.

- **Phase voltage** : Phases and averages
- **Line voltage** : Phases and averages
- **Current** : Phases and averages
- **Active power** : Phases and averages
- **Reactive power** : Phases and averages
- **Apparent power** : Phases and averages

ACCURACY

- **Current Measurement Accuracy** : 0.1%+Accuracy of current sensor
- **Voltage measurement accuracy** : $\pm 0.2\%$ (60V~600V AC)
- **Grid frequency** : $\pm 0.01\%$ (45~65Hz)
- **Power factor** : ± 0.005
- **Active and apparent power** : IEC62053-22 level 0.5S
- **Reactive power** : IEC62053-21 level 1S
- **Active energy** : IEC62053-22 level 0.5S
- **Reactive energy** : IEC62053-21 level 1S

POWER : 95~265VAC/110~370VDC,45~60Hz ; 3.5VA.

All Specifications are subject to change without prior notice