PWG-42CM AC Branch Circuit Power Meter

Application

- AC load management
- Data Center Power Management
- Telecommunication Power Management

Function

- **Measuring:** 1 main circuit + 42 branch circuits
- **DI/ DO:** 4 status input (dry contact), 2 relay outputs, 1 pulse output
- **Settable Pre-Alarm function:**

  Main circuit: Alarm for voltage, current, current unbalance

  (optional alarm for leakage current/ temperature)

  Branch circuit: Alarm for current (lo-lo-limit, lo-limit, hi-limit, hi-hi-limit)
- **Communication:** RS485, support Modbus-RTU protocol
- **Phase sequence of branch circuit is programmable.**
- **Optional CT input for branch circuit:** 50A, 100A, 200A, 400A, 600A
- **Settable wiring for branch circuit:** Either single pahse or 3 phase
- **Historical kWh record:** kWh yearly consumption of last 10 years,
  kWh monthly consumption of last 12 months

Measurement

Main circuit measuring:

	Accuracy
Voltage-Ua, Ub, Uc	(0.5%)
Current--Ia, Ib, Ic, In, I unbal, Max. I	(0.5%)
Active power– Pa, Pb, Pc, ∑P	(1.0%)
Reactive power – Qa, Qb, Qc, ∑Q	(2.0%)
Power factor – PF	(1.0%)
Frequency – F	(±0.01Hz)
Active energy – kWh	(1.0%)
Reactive energy – kvarh	(2.0%)
Demand (for 3I, 3P, Ptot) and Max. demand	
THD for U, I	(2~31st)
Leakage current (optional)	(0.5%)
Temperature (optional)	(0~120'C)

Branch circuit measuring:

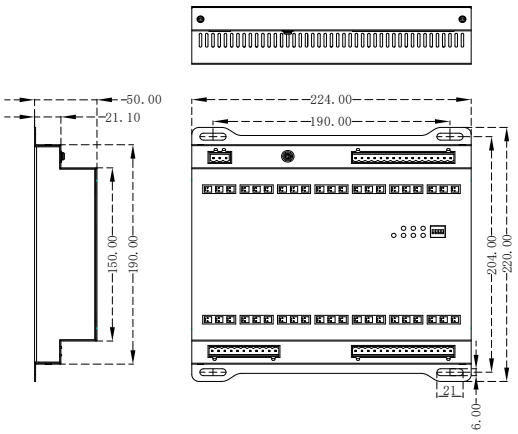
	Accuracy
Current--I, Max. I,	(0.5%)
Active power- -P,	(1.0%)
Reactive power--Q,	(1.0%)
Power factor-- PF	(1.0%)
Active energy--kWh,	(1.0%)
Reactive energy--kvarh,	(2.0%)
Demand (for I, P) and Max. demand	
THD for I	

PWG-42CM AC Branch Circuit Power Meter

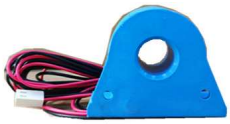
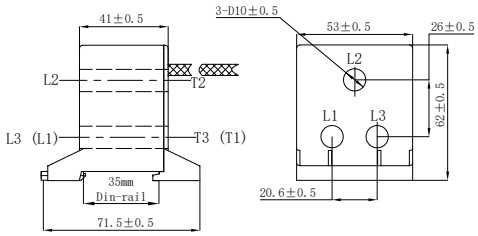
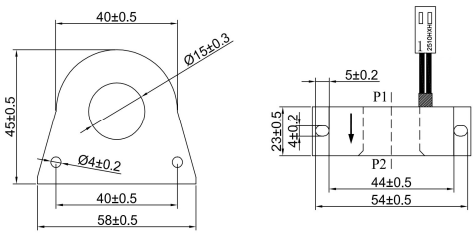
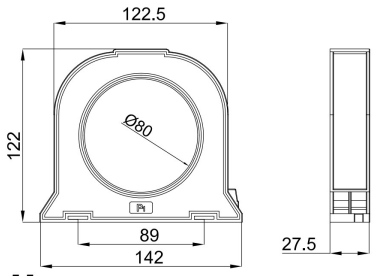
PWG-42CM & Accessories:

◆ Main Module

Unit: mm

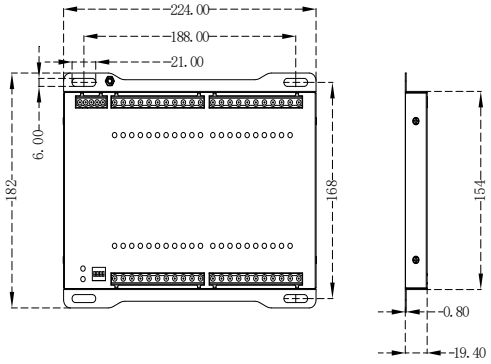


◆ CTs

>> CT group (3CTs in one) for branch circuit	>> Individual CT for branch circuit	>>Leakage CT
		
Input 60A, cable 2.5m	**Input 50A/100A/ 200A/ 400A/ 600A, cable 2.5m**	**Input 1A**
		

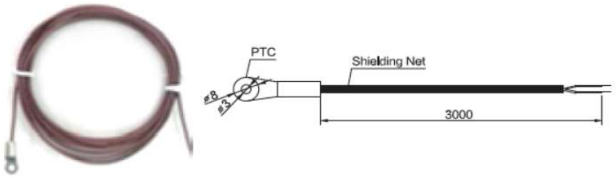
◆ Optional DI Module

Unit: mm



◆ Optional Temperature Sensor

Unit: mm



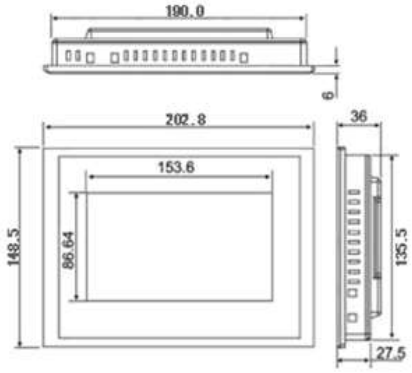
PWG-42CM AC Branch Circuit Power Meter

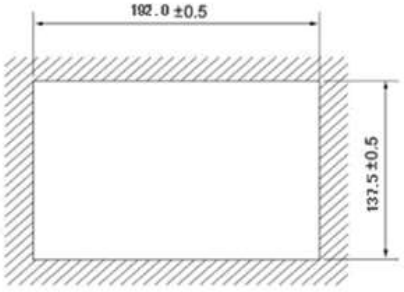
◆ Optional Display Module

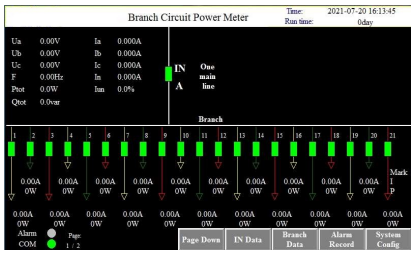
Unit: mm

HMI: 7” touch screen LCD. One HMI monitors max. 4 units of PWG-42CM main module

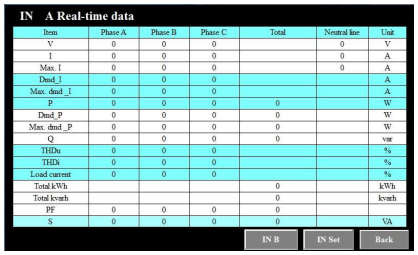
Resolution ratio: 800×480



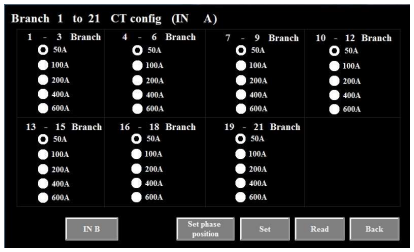




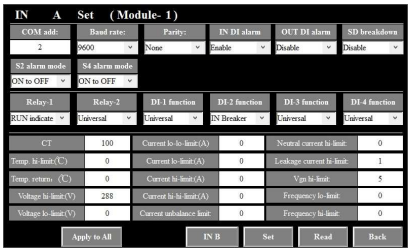
Circuit diagram



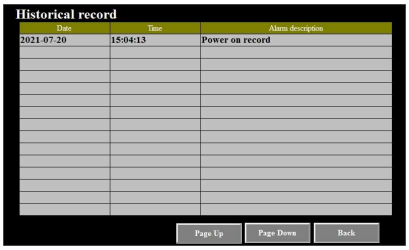
Real time measurement



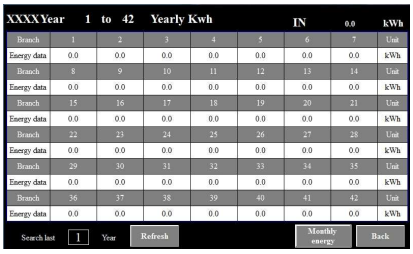
Branch Circuit Configuration



Parameter and Alarm Setting



History and Alarm record



History Energy Record

Note: Above branch circuit CT comes with 2.5m cable. If project require split core CT, please inform the sales to order split core CT.

Technical Specification

Main circuit	1 circuit, three phase AC 220V/ 380V
Branch circuit	Max. 42 circuit per unit
Power supply	AC 220V, range: 85~264V
MTBF	≥50000h
Service life	10 years
Rated voltage	AC 220V, Range: 10%~120%, Accuracy: 0.5%
Marin circuit rated current	5A via CT, CT primary to 2000A Range: 1%~120%, Accuracy: 0.5%
Branch circuit rated current	50A~600A up to the CT Range: 1%~120%, Accuracy: 0.5%
Active power and Active energy	Main circuit Accuracy: 1% Branch circuit Accuracy: 1%
Rated frequency	50Hz, Range: 45~60Hz, ±0.01Hz

Demand	Demand Interval: 15 mins Slip interval: 1 mins
Communication	RS485 port Baud rate: 2400, 4800, 9600, 19200, 38400 (optional)
DI module	Main Income Circuit 4DI: Dry contact DI module for branch circuit: wet contact, 220Vac, Range: 70~120%, or Dry contact (optional)
Relay output capacity	250Vac/5A or 30Vdc/5A
IP index	Main Module: IP20 HMI (Front board): IP65
Insulation Resistance	≥100MΩ IEC62052-11
Environment	Operation: -10℃ ~ +55 ℃ Storage : -25℃ ~ +70 ℃ Humidity: 5%~95%, non-condensing