ЭНЕРГОМЕТРИКА
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# EnergoM-206
# 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) |

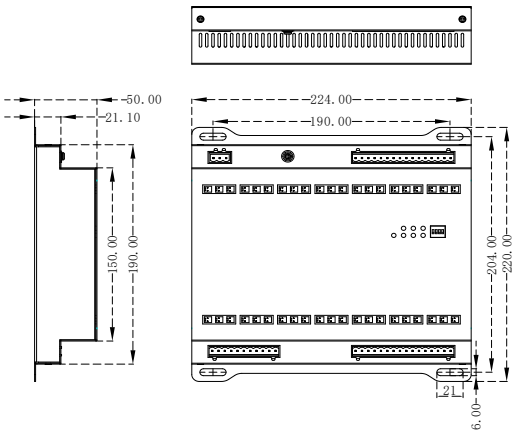
**Branch circuit measuring:**

| | 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 | |

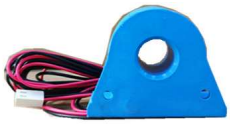
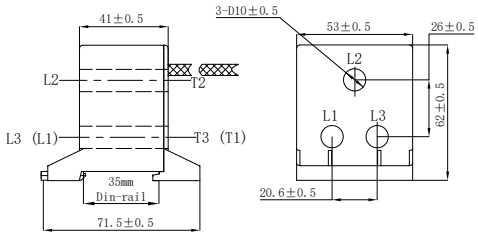
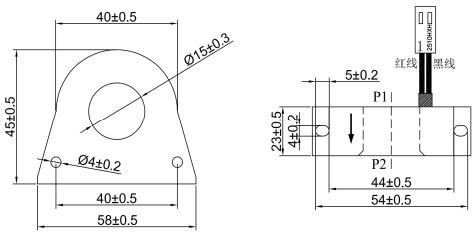
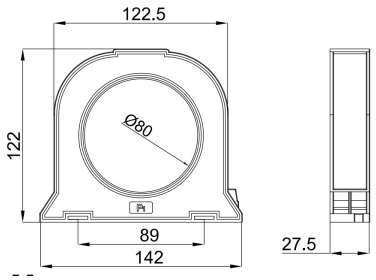
# EnergoM-206 & Accessories:

## ◆ Main Module

Unit: mm



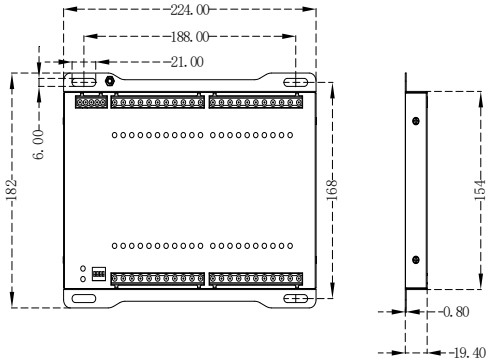

## ◆ CTs

| >> CT group (3CTs in one) for branch circuit | >> Individual CT for branch circuit | >>Leakage CT |
|---|---|---|
|  |  |  |
| **LACT-60M2**<br>**Input 60A, cable 2.5m** | **LACT-50C1/ 100C2/ 200C2/ 400C2/ 600C2**<br>**Input 50A/100A/ 200A/ 400A/ 600A, cable 2.5m** | **503L-250**<br>**Input 1A** |
|  |  |  |



## ◆ Optional DI Module

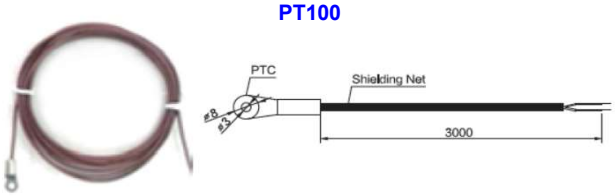
Unit: mm




## ◆ Optional Temperature Sensor

Unit: mm

**PT100**



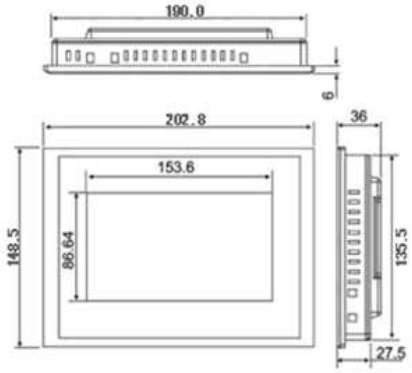
## ◆ Optional Display Module

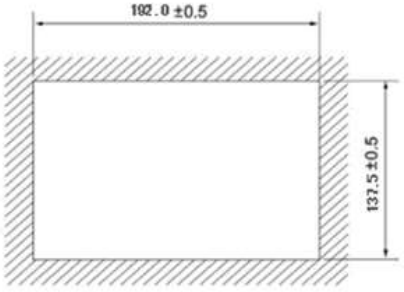
**Unit: mm**

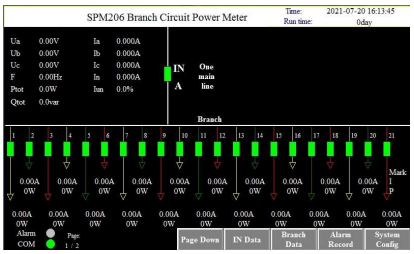
**HMI:** 7” touch screen LCD.  One HMI monitors max. 4 units of Энергом-206 main module

**Resolution ratio:** 800×480

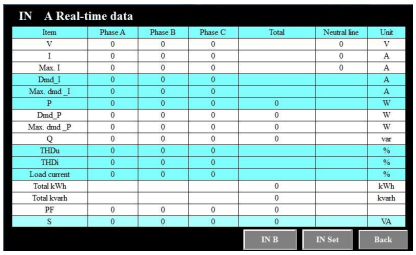
EnergoM-201V6



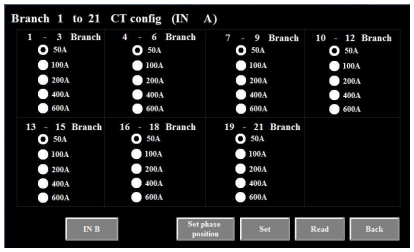



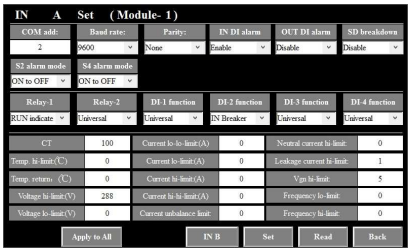

Circuit diagram



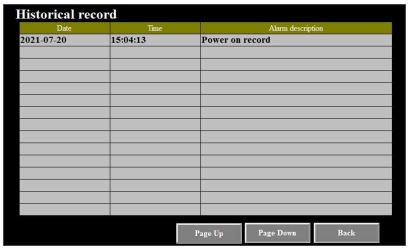

Real time measurement



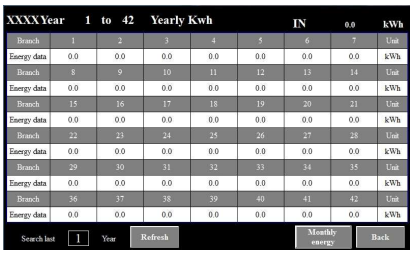

Branch Circuit Configuration




Parameter and Alarm Setting




History and Alarm record




History Energy Record

# 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,<br>Range: 10%~120%, Accuracy: 0.5% |
| **Marin circuit rated current** | 5A via CT, CT primary to 2000A<br>Range: 1%~120%, Accuracy: 0.5% |
| **Branch circuit rated current** | 50A~600A up to the CT<br>Range: 1%~120%, Accuracy: 0.5% |
| **Active power and Active energy** | Main circuit Accuracy: 1%<br>Branch circuit Accuracy: 1% |
| **Rated frequency** | 50Hz, Range: 45~60Hz, ±0.01Hz |

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

# Order Information

| Энергом-206 | | Order code | | Description |
|---|---|---|---|---|
| Main module | | EnergoM-206-42- | C1 | Branch Circuit Rated Current: 50A |
| | | | C2 | Branch Circuit Rated Current: 100A |
| | | | C3 | Branch Circuit Rated Current: 200A |
| | | | C4 | Branch Circuit Rated Current: 400A |
| | | | C5 | Branch Circuit Rated Current: 600A |
| Optional module | | EnergoM-201V6 | | HMI - 7” touch screen LCD |
| | | EnergoM-206K-21 | | Branch Circuit DI Module: 21 channel<br>(2 options: dry contact or supply AC 220V) |
| | | EnergoM-206K-42 | | Branch Circuit DI Module: 42 channel<br>(2 options: dry contact or supply AC 220V) |
| Accessory | Branch circuit CT | LACT-60M2 | | Rated current 60A CT group, hole diameter: Φ10mm<br>Each group has 3 CTs to measure 3 circuits |
| | | LACT-xxxxx | 50C1 | Rated current 50A, hole diameter: Φ9mm |
| | | | 100C2 | Rated current 100A, hole diameter: Φ15mm |
| | | | 200C2 | Rated current 200A, hole diameter: Φ25mm |
| | | | 400C2 | Rated current 400A, hole diameter: Φ34.5mm |
| | | | 600C2 | Rated current 600A, hole diameter: Φ34.5mm |
| | Leakage CT | 503L-250 | | Primary 1A, hole diameter: Φ80mm |
| | Temperature sensor | MS6-PT100B-3000 | | PT100 |
| | 24VDC Relay | MY2N-GS | | Switch HMI main /back up power supply<br>Select when there has 2 main input circuit. |

**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.**