Three Phase CT Connect Meter

FEATURES & BENEFITS

Measurement

Class 0.2S/0.5S for active energy (CT connection)

Class 1.0 for active energy (Direct connection)

Class 2.0 for reactive energy

Compliance with IEC 62052-11, IEC62053-21, IEC 62053-22, IEC 62053-23, EN50470-1/3

Measured Values

Import and export Wh and Varh

Maximum demand: kW, kVar, kVA

Per quadrant kWh, kVarh

Power: kW, kVar, kVA

Vrms, Irms for phase L_1, L_2, L_3

Total Power factor

Frequency

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Current

CT Range: 5/10A

Whole Current range: 5/80A, 5/100A, 10/120A

Short time over current: 30 times Imax for 0.5 cycles

Burden: <1VA/phase

Voltage & Power Supply

Nominal voltage: 3 X 220(230)/380(400)V

Burden : <10VA/phase@ Un,2W

Frequency range: 50Hz / 60Hz±5%

Environmental

Operating temperature: -25°C to +70°C

LCD operating temperature: -25°C to +70°C

Range of limit operating temperature：-40℃-+70℃

Storage Range temperature: -45°C to +85°C

Relative humidity: up to 95% non-condensing

Ingress Protection: IP54 (indoor)

Time Clock, Calendar and TOU

Accuracy within 5ppm; quartz controlled

TOU function

Up to 6 seasons

Up to 6 weeks

Up to 8 rates/day

Up to 200 special days

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Battery Backup

- Can be easily replaced
- Minimum life span for battery: >10 years
- Option for Super Capacitor (with 7-days capacity)

Security

- Multi-level security password protection
- Option for hardware programming
- Sealable pushbutton

Communication

- Optical port : IEC 62056-21
- Option for DLMS/ COSEM
- Option for RS232, RS485 Multi-drop(RJ45)
- Option for Mesh RF, PLC(G3/Prime), Zigbee, GPRS

Protocol

Protocols comply with IEC52056 standards

- 62056-42: Physical layers service
- 62056-46: Data link layer using HDLC
- 62056-51: Application layers protocol
- 62056-53: COSEM application layer
- 62056-61: OBIS object identification system
- 62056-62: Interface classes

Load Profile

- Non-volatile memory EEPROM and log flash
- Up to 32 channels
- Intervals programmable from 1 to 60 minutes

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- Over 300 days storage (based on 2 channels, 30 minute intervals)
- Stored interval value: Average, minimum, maximum load
- Tamper detection and Alarms
- Option for magnetic tamper detection
- Time stamp reverse current and over voltage
- Time stamp for other events such as:
  meter cover open, terminal cover open detection, meter reset, power on / off and so on
- Advanced tamper detection and logging
- Alarms trigger LED and buzzer, can be configured

Inputs / Outputs

- Up to 2 inputs and 3 outputs
- Input type:
  Passive input voltage(s): AC 220V
  Active input voltage: DC 12V
  Output type: e.g. relay and pulses
  Extend Communication Interface (ECI)
- POWER SUPPLY: DC 5V+0.2V
  Maximum current: 300mA
- Data Interface: UART
  RS485/RS232
- Programming software
  Programming and reading software compatible with Microsoft Windows (2000 and later)

netVendor
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Demand

Demand records are stored in the demand memory and will periodically measure the "current average value". Time interval of "T" is defined by "period" and "Number of periods" of demand measuring and accounting.

TOU

The meter can support maximum 8 tariffs programmed by TOU scheme with special tariff plan (maximum 200 special days table) and normal tariff plan (maximum 6 season tables, 6 weektables, 8 day tables, 10 period intervals) according to IEC62056-62, between which associated with day-id in day table.

Billing

The meter billing function is executed at periodic times. When the designated time arrives, monthly billing and daily billing would execute according to preset billing time.

Relay operation

There are three statuses for disconnector: disconnected, pre-connect and connected.

Anti-tamper

Meter is sealed without any hardware interface or component exposed. The system detects various anti-tamper events such as terminal cover opened, top cover opened, and magnetic fields detected.

Alarm

Meter status is divided into: Measurement status word, function status word and driver status word. If an event happens, the bit of status word corresponded to the event will be set to 1.

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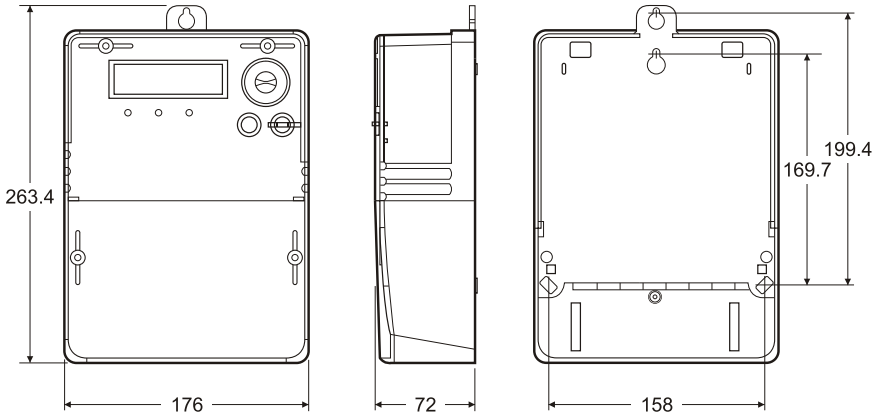
Installation Size and Diagram

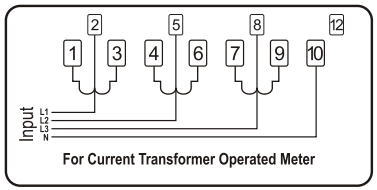
W*D*H: 176mm x 72mm x 263.4mm

Weight: approx 1.5kg

SCHEMATIC



CONNECTION DIAGRAM



LCD DISPLAY