

Single Phase 2 Wire Energy Meter

M40R

PRODUCT INFORMATION

Single phase static smart energy meter with all advance features and compliant with DLMS protocol.

M40R is an excellent product for consumers with single phase two wire connection. The meter operates in completely static mode and provides full tamper proof features for secure and accurate energy information.



KEY FEATURES

- Fully DLMS compliant
- Enhanced security
- Extensive anti-tamper features
- Integrated Load Profile
- Read out display parameters during power outage
- Alarm and monitoring services
- Non-volatile memory
- Easy to install

M40R

CLASS 1.0

SINGLE PHASE 2 WIRE ENERGY METER

SPECIFICATIONS



STANDARDS

- IEC 62052-11, IEC 62053-21, IEC 62056-21
- IS 13779, CBIP Publication 304

METER TYPE

- Single Phase, 2 Wire

MEASURING ELEMENTS

- Two channel measurement (Phase-Shunt), (Neutral-CT)

MEASUREMENT

- kW, kWh, kVA, kVAh, kVAh, Vrms, Irms, V, A, Hz

MAXIMUM DEMAND

- Maximum Demand (MD) Integration Programmable Periods: 15, 30 or 60 minutes

DISPLAY MODES

- The M40R supports three display modes: AUTO, PUSH and Battery Mode

VOLTAGE

- Rated Voltage: 240V (-40% to +20%) (other ratings can be given as per customer's request)
- Safe operating Voltage: 100V to 400V AC

CURRENT

- Current rating: 10(80)A (other ratings can be given as per customer's request)
- Starting Current: 0.4% of basic current

FREQUENCY

- Rated frequency: 50Hz \pm 2% (60Hz on request)

POWER CONSUMPTION

- Voltage circuit: < 1W, < 8VA
- Current circuit: < 4VA

REAL-TIME CLOCK

- Precision clock accuracy: \pm 5ppm at reference temperature

OVER CURRENT/ VOLTAGE HANDLING

- Over Current: Up to 120% of Imax
- Over Voltage: Up to 400V AC applied short time between phase & neutral wires

METER CONSTANT

- 1000 imp/kWh (other constants on request)

COMMUNICATIONS

- Optical port
- Communication protocol: DLMS
- Baud rate: 9600 baud

DATA STORAGE

- 1 MB of non-volatile memory
- Life of data: >20 years

TAMPER/ EVENT

DETECTION/PREVENTION

- Top cover and terminal cover open detection
- Bypass of main line and load line detection
- Partial and full Earth Tamper detection (Different Combinations)
- Supply and Load wires interchange detection (Different Combinations)
- Under and over Voltage detection
- Over Current detection
- Missing potential detection (Different Variations)
- Double feeding detection (Different Combinations)
- Power OFF/ON events
- Event/Tamper logging records along with date
- Immune to high density magnetic field interference
- Immune to high frequency jamming
- Resistance on Neutral Disturbance
- Resistance to 0.5mT magnetic field

LCD DISPLAY

- Custom made HTN Type LCD Display (55mm x 19mm) with white backlit
- 7 digits display with digit size (9.4mm x 6mm)
- Annunciators: Low Battery, Terminal and Top Cover open, Reverse, Earth, Neutral Missing, Neutral Disturbance

LED OUTPUT

- Single LED indicator available for Active Energy

ENVIRONMENTAL

- IP 54
- Operating Temp: -40°C to +70°C
- Humidity: 95% RH

SECURITY

- Meter cover seal: 2 factory sealable screws
- Terminal cover seal: 1 field sealable screw
- Password protected access to read and write

LOGICAL STRUCTURE

- Public Client Association (PC)
- Meter Reading Association (MR)
- Utility Settings Association (US)

BATTERY

- Internal lithium battery
- Battery life: 15 years
- 48 Hours Supercap backup for RWP mode

CALENDAR SUPPORT

- Gregorian (English)

MULTI-TARIFF

- Up to 4 Tariff tables can be programmed
- Active and passive calendar support with programmable season profile, week profile and day profile

SOFTWARE

- BCS software provided by DMS
- Supported by third party DLMS client software

LOAD PROFILE

- 30/60 minutes integration for 35/70 days

TERMINAL TYPE

- Fixed type terminal
- Pressure plate type terminals (optional)

PHYSICAL DIMENSION

- Dimension: 220mm x 120mm x 70mm
- Weight: 1 kg.
- Material: Polycarbonate
- Mounting Type: Projection



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