

# THREE PHASE SMART METER



Range :

**5-60 Amps**

- Real Time Interoperable for Communication Technology Swap (GPRS/RF/NB-IoT/Wi-Fi/BLE)
- Programmable TOU/TOD
- Multi-Vendor HES Compatible
- Smart AMI with Programmable Post/Pre-Payment and Net Metering Modes
- Certified IS16444 Standard
- Anti-Tampers and Tamper Alerts
- Last Gasp and First Breath Indication before Power failure and Restoration

# SPECIFICATION

## MEASUREMENT

- Class 1.0 Accuracy (Direct Connected)
- Compliance with IS 16444 Standards
- Four Quadrant measurement
- Three Phase 4 Wire 60A Load switch
- Active and Apparent measurements both in Import and Export
- 0.000001kWh Resolution measurement

- Load survey and Day survey as per standards
- Harmonic Measurement (Fundamental to 31st Harmonic)
- Programmable Block Window and Sliding Window MD Calculation methods
- Programmable MD integration period and Reset dates
- Active/Apparent Import and Export MD Registers

## VOLTAGE AND POWER SUPPLY

- Voltage – 3\*240V AC, Frequency - 50Hz - Power supply surge - 440V
- Burden < 10VA (as per IS 16444)
- Power consumption = 5Watt (As per Standard)Current

## CURRENT

### CURRENT RANGES

- Direct Connected Meters : 5-60A
- Overcurrent: 30 times IMAX for 0.5 cycles Burden < 0.5VA
- Operating Temperature 27°C
- UC1 Load switch ranges 60A/90A/120A per Phase

### SMART FEATURES

- Alarms and alerts Alarm/alert for power on/off, over voltage and over current
- **Load control Disconnection provided for :**
  - Over current and Over load conditions
  - For selected Tamper
  - Disconnection Signal from Utility
- Relay Provided in both phase and neutral complying to Is15884 with UC1/UC2/UC3
- Status available on display and data downloading
- Connection/Disconnection are logged as events
- Data security Multilevel Password for Data Reading and Programming
- Communication Optical port for local communication with DLMS
- NAN over 865-867 MHz RF complying to IS 15959 Part 2
- GPRS Modem 2G/3G/4G/ NB-IoT

Pluggable Communication Module either GPRS-4G or RF which can be Swapped in the field without changing the Meter. The Meter has the Intelligence to detect automatically and start communicating seamlessly.

Inesh Smart Meters Supports all the Three Modes on real time. Once configured the Meter shall operate in any of the following Modes : 1.Post Payment Mode 2.Pre-Payment Mode

3. Net Metering Mode

### POST PAYMENT MODE :

Meter can be configured with Time of Use (TOU) Tariff and programmable Bills dates. It Support Monthly/Bi-Monthly/Odd Even Monthly Billing

### PRE-PAYMENT MODE :

Complete Prepayment algorithm is built inside the Meter. The Meter handles the Prepayment Token Recharge either in kWh/Rupees and functions independently without the intervention from the server for disconnection. Supports Holiday, Happy Hours and TOU based deduction. Provision to deduct minimum usage, Different Tariffs for Load Limit Exceed and Emergency Credits.

### NET METERING MODE :

Measures both Import and Export separately and has the Net value available for both kWh and KVAh billing.

Specification

## MEASURED ENERGY VALUES

- Import/Export/Net kWh and KVAh
- Q1, Q2, Q3 & Q4 KVAh
- Absolute kWh and KVAh

## SYSTEM INTEGRATION SUPPORT

- Interoperable DLMS compliance
- Programmable Alarms and Instant/Load Survey/Day Survey/Tamper/Billing Push

## ENVIRONMENT

- Operating temperature range: -25°C to 60°C Limit range: -40°C to 70°C
- Storage range: -40 to 80 deg C
- Relative humidity: Up to 75% mean, 95% non-condensing for 30 days
- Ingress protection: IP51

## MECHANICAL

- Sealing: break-open sealing provision as per Standards
- Material: Engineering plastic/ PC/ Brass terminals