Indus Series Single Phase Smart Meters

Residential Smart Meter Allows Utilities to stage their Investment, Protect Revenue and have a more Reliable Grid

Proven, Safe Choice

The Indus series of single phase Smart Energy Meters provides modular, reliable and robust metering solutions for utilities and their customers for residential and commercial applications. It supports RF mesh, GPRS and PLCC Communication technology that have been deployed in millions of smart meters worldwide. As with the entire line of Sumeru Verde's smart meters, the Indus incorporates a highly reliable bi-directional communication network that delivers 99.7- 100% reliability. With readings at frequent intervals, Sumeru Verde's Smart Metering Solution collects power consumption and power quality data that is imperative to gain visibility of the power distribution network.

Support Multiple Communication Option

Indus is available with PLCC, GPRS and RF mesh communication module options, allowing the relevant communication module to be used for appropriate portions of the distribution network.

Protect Revenue and Reduce Operational Costs

With communications enabled, Indus creates a reliable and robust network, which prevents electricity theft and also identifies unexpected technical losses.

Tamper events are detected and logged. Indus's rich data collection enables meter data management software to drive operational costs savings. The meter includes remote disconnect/re- connect switch, secure remote communications, firmware upgrades, rate plans, time-of-use tariffs, scheduled and on-demand meter reading without a trip to the field.

Improve Distribution Network and Grid Reliability

Consumers' heightened demand for power availability, distributed generation, and requirements for greater efficiency in power distribution are creating a need for real-time, accurate and reliable measurements of power consumption and power quality throughout the distribution network. Indus conforms to a powerful revenue grade smart meter that provides real-time, reliable advanced metering data that prevent problems and improve grid reliability.

Some features of Indus:

Metrological
- Four quadrant metering
- Time-of-use metering
- Load profile data
- V,I ,PF & F
- Active, Reactive and Apparent Power/Energy

Power Quality
- Sag/swell, THD
- Non-technical loss detection

Smart Meter functionality
- Integrated disconnect/remote connect
- Remote firmware upgrades
- Net Metering
- Prepayment
- Remote Configuration
- In-House Display
- Temperature monitor
- Outage Details
- Tamper/event detection
- Dual Source

Communication Protocol
- DLMS
- MODBUS
- OSGP

Specifications

Voltage
Nominal Voltage: 240V/230V (P-N)
Voltage Range: -40% to +20%

Frequency
Nominal Frequency: 50 Hz
Tolerance: +/- 10%

Power Consumption
As per IS - 16444
Voltage Circuit : 5W & 15VA (Idle mode)
Current Curcuit: 4VA

Temperature
Specified Operating Range: -10° to +55° C
Limited Operating Range: -25° to +55° C
Storage and Transport: -25° to +70° C
Humidity: <=95% RH, non-condensing

Current Ranges
10 - 40A, 10 - 60A
Starting: 20mA (0.2% of Ib)

Accuray: CL 1.0

Real-time Clock
Accuracy drift +/- 0.5 seconds per day
In-built RTC daily synchronization with server

Service and Connection Types
Designed for direct connection of line and load conductors on a single-phase, 2-wire electrical service.

Control Wiring Terminal
Maximum wire size: 25mm sq. (used cables may not fit)
Terminal inside diameter: 9.5mm sq.

Enclosure
IP 51 insulating encased meter

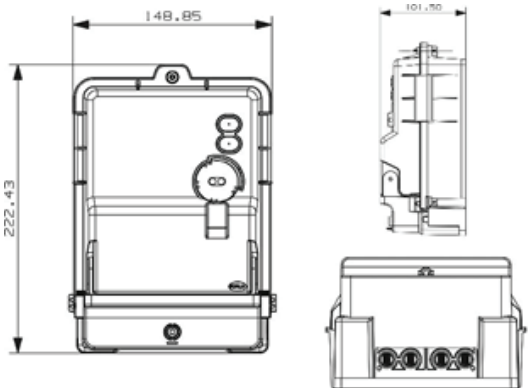
Insulation class
Protective Class II
Impulse with stand upto 10 kv

Data Security
Password protection for optical communication; authenticated, password-protected transactions and encryption for RF mesh, PLCC and GPRS communication.

Certifications
IS13779
IS15959

Communication
RF-mesh (Sub - GHz 865-867, ISM- band)
PLCC (CENELEC A-band)
Cellular – GPRS

Optical Port
- IS15959 (communications protocol).



*All dimensions are in 'mm'

Load Connect/Disconnect Relay Specification
Mechanical Life at Maximum Power, PF=1: 6,000 cycles
Maximum Switching Current: 65A
Maximum Overload Current: 80A
Maximum Switching Voltage: 250 V AC
Short Circuit: 22KA in accordance with UC2
Maximum Switching Power: 22kVA
Insulation Strength: 50Hz, 1 minute
Contact to contact: 2kV
Coil to contact: 4kV

Energy Measurements and Data Collection
Units Measured: kW forward, reverse; kWh reverse, forward + reverse; kvar import, export; kvarh import, export; RMS voltage; RMS current; power factor; frequency

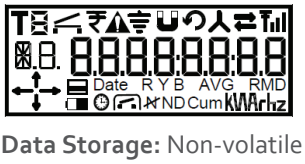
Calibration LED:
- Active Energy- signaling at 2,000 impulses per kWh
- Reactive Energy- signaling at 2,000 impulses per kvarh

Power Quality Analysis: Sag; swell; number of short power outages; number of long power outages; duration and time of the last 10 long power outages; maximum and minimum frequency, current and voltage harmonics

Time of Use: Flexible TOU settings available with eight time zones which are configurable upto 8 channels.

Data Logging: Multiple Configurable channels are available for load profiling. Logging intervals are user-selected at 5, 15, 30,60 minutes. 35 days logging in meter with 16 channel for 30 min. integration period.

Display
STN-type LCD with backlight support
- 8 digit display
- 10*6 mm character size
- 30 icons



Our display includes 30 icons such as PLC Communication, GPRS or RF Communication, Relay Connect and Disconnect Forward Active, Import Reactive, Export Active, Reverse Active, Magnetic Tamper Indication, Prepay Enabled etc.

Data Storage: Non-volatile memory

Warranty: 5 years

Please contact us for more details at sales@sumeruverde.com / 9971992396