

Grid Edge Power Quality Monitor

EdgeSensor (200 Series) - Grid and Transformer Monitoring Unit

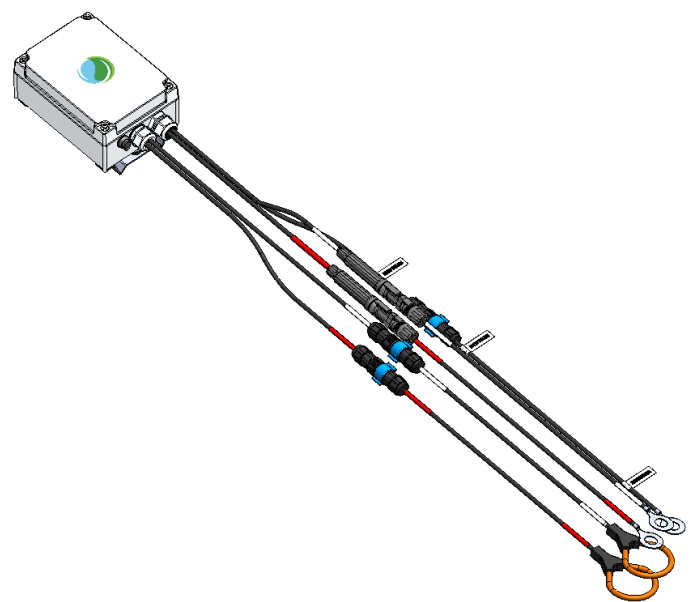
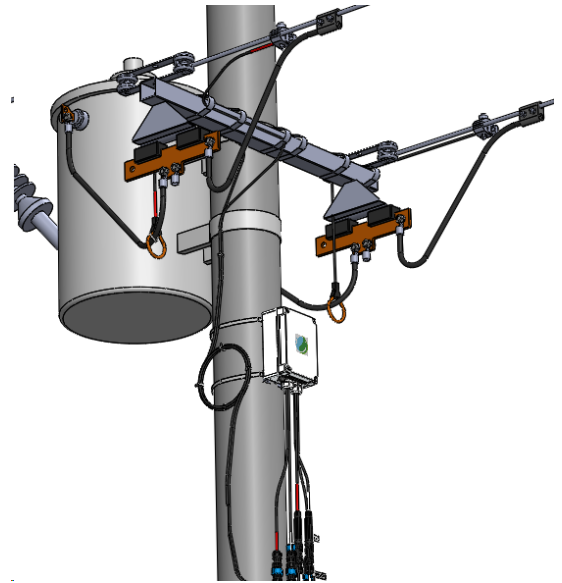
Models: EE-406



FEATURES

Compact Smart Single Phase Data Logger

- Monitors and Transmits Full Power Quality Data.
- Grid or Transformer Status Monitoring Unit
- For Single Phase or for Single Phase Center Tapped Installations
- Wide Voltage Input - 100-300VAC
- High Temperature Polycarbonate IP67 enclosure
- Monitors and Transmits Grid or Transformer Status including Full Power Quality Data.
- Full Alarms including - Overloading, Overvoltage, Undervoltage, PF min., Reverse Current.
- Remote Firmware Upload to add upgrade Custom Options and modify Alarm Limits.
- Intelligent Software Control: Network compatible Unit that is Programmable over Internet.
- Encryption AES128 & SHA256 over private APN.
- Quick install Utility Grade Rogowski Current Transformers.
- Events Logging 10 days – Store and Forward.
- EMI Electrical Noise Suppression Networks.
- Line Surge protected - IEC 61000-4-5 to 6KV / 3KA
- Data Comms – Cellular (4G Cat-1 USA)
- Unit Ingress Protection: IP67 / UL Type Rating 4
- IEC 61010-1, 61010-2-030
- Patents Pending.



DESCRIPTION

The Edge EdgeSensor (200 Series) is a compact grid Edge Power Quality Monitor that incorporates Edge Electronics Power Quality Grid Edge Technology. It is an intelligent, software-driven, full Power Quality Grid Monitoring Sensor, installed on Pole Transformers that monitors Status and Alarms. The EdgeSensor (200 Series) is specifically designed to be an Intelligent Network Device that monitors and transmits secure full Power Quality Data with additional Status Alarms for Grid Edge Applications and remote Software updates for additional Custom Features and setting Alarm Limits.

Grid Edge Power Quality Monitor

EdgeSensor (200 Series) - Grid and Transformer Monitoring Unit

Models: EE-406



Electrical Specifications	
Available Configurations	1 Phase, 2 Wire configuration, 2 Phase, 3 Wire configuration
Electrical Frequency	50/60Hz
Rated Voltage	100 - 277 Vac (L1-to-N, Supply Voltage)
Absolute Maximum Voltage Rating	300 Vac (L1-to-N)
Current Full Scale Range	800 Amps RMS
Lightning Strike	Power line surge protected - IEC61000-4-5
Voltage Accuracy	± 1%
Power & Energy Accuracy	± 0.5% + 0.5% of Current Full Scale
Power Factor Accuracy	± 1 degree
Power Quality Measurements	Voltage, Current, Power, Energy, vTHD, iTHD, individual harmonics
Reporting Interval	5min transmit time
Alarms and Event Logging	
Grid Power Quality Alert	Voltage Imbalance, Maximum vTHD, Over-voltage, Under-voltage, Voltage Swell, Voltage Sag, Voltage Flicker Current Imbalance, Maximum iTHD, Reverse Current Flow, Low Power Factor Over-frequency, Under-frequency
Transformer Asset Management	Overload, Peak demand Alert, Over-current, Fault Current Reading, No Current Reading No Voltage Reading
Measured Parameters	V, I, PF, kW, kVA, kVA _r , Energy, vTHD, iTHD, up to 21 st harmonics
Connectivity	
Communications Options	Cellular Communications with embedded CAT-1 modem, Private APN with AES128 & SHA256 encryption IPsec tunnel.
Communications Architecture	Periodic reporting to a central IoT Cloud server
Communications Architecture	On demand reporting to a SCADA system through Edge Cloud Push notification on Alerts
IoT Communications	CoAP with DTLS security
Mechanical and Environmental	
Dimensions	L200mm[7.874in] x W150mm[5.905in] x H75mm[2.953in]
Weight	2.0kg[4.4lbs]
IP Rating	IP67 / UL Type Rating 4
Power Supply Button	Supported
Operating Temperature and Humidity	-20°C to 60°C[-4°F to 140°F] , 0-95% RH non-condensing
Extended Temperature Rating	-40°C to 60°C [-40°F to 140°F] tested; 70°C [158°F]for 1 hour
Storage Temperature	-40°C to 80°C[-40°F to 176°F]
Operating Altitude	2000m[6561.68ft]

Grid Edge Power Quality Monitor

EdgeSensor (200 Series) - Grid and Transformer Monitoring Unit

Models: EE-406

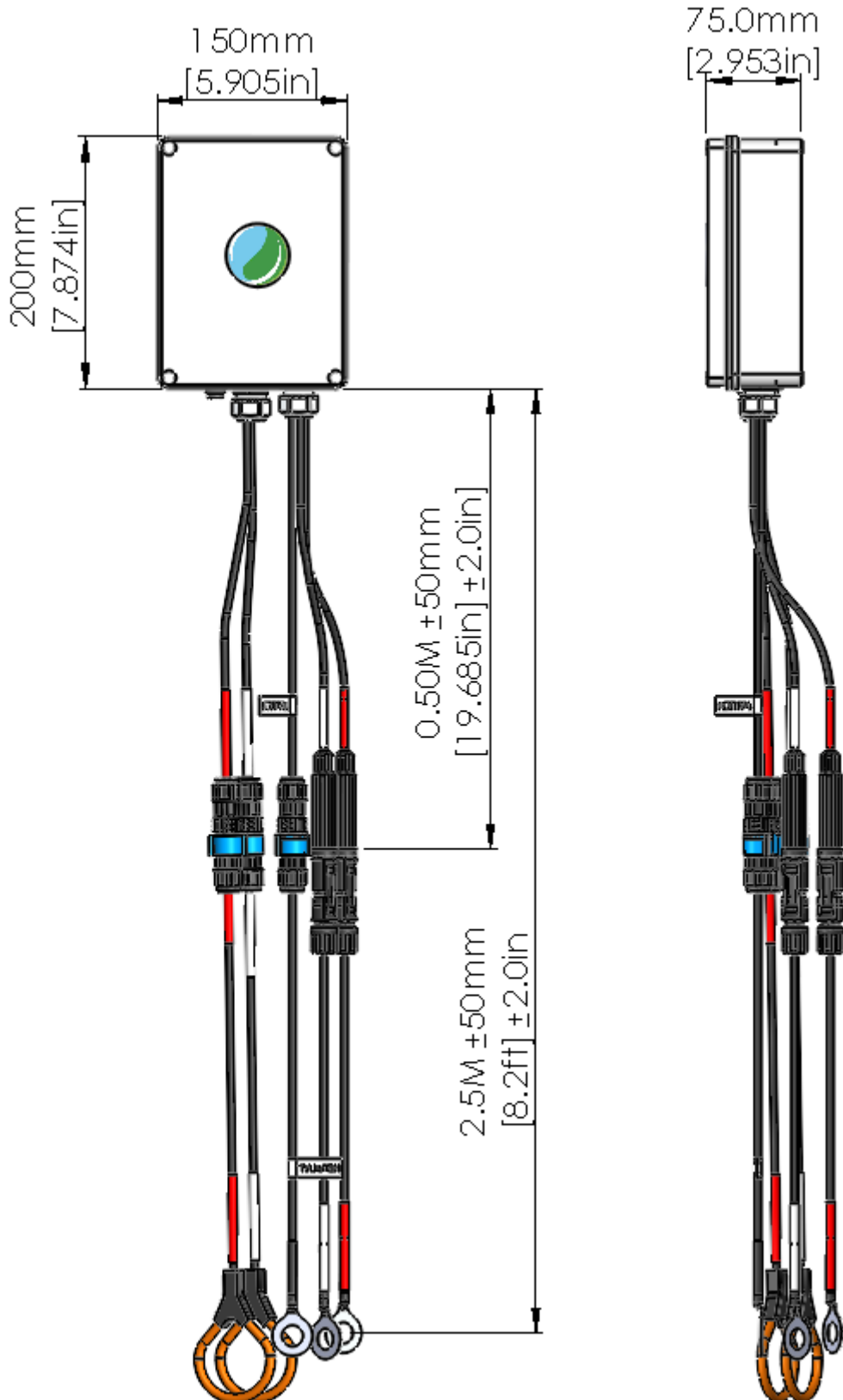


Figure: EdgeSensor (200 Series) with Detachable Accessories

Grid Edge Power Quality Monitor

EdgeSensor (200 Series) - Grid and Transformer Monitoring Unit

Models: EE-406



EdgeSensor (200 Series) Parts List Options for Detachable Sensors

Parts/Accessories	Options
Current Sensor	
Current Range	800 A
Phase Configuration	2-Phase 2 CTs 1-Phase 1 CT
Sensor Length	2.5m[8.2ft]
Internal Diameter (mm/in)	Ø36mm[1.42in]
Voltage Sensor	
Termination	Neutral: Ring terminal (16mm [5/8in] bolt diameter) Line: Ring terminal (16mm[5/8in] bolt diameter) with in-line fuse
Phase Configuration	2-Phase 3 Wires (2 Line Sensing + N) 1-Phase 2 wires (1 Line Sensing + N)
Sensor Length	2.5m[8.2ft]
Sensor Wire Size	1.3mm ² [AWG 16]
Communications	
Communications	4G CAT-1 USA
Mounting	
Mounting Type	Pole mount belt & bracket