

Edge Energy Monitor

Full Energy Cloud Data User Interface

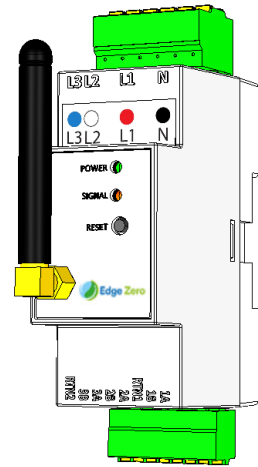
Models: EE-409-001



FEATURES

Full Data Analytics for Electrical Energy Consumption

- Supports IoT Centric Cloud Architecture with Web Graphical User Interface and Mobile Application
- For both Single and Three Phase Installations
- Wide Voltage Input – 100 - 480VAC Three Phase
- Utility compliant Cable Resistance Computation for Electric Safety Hazard notification
- UL 94-V0 approved Polycarbonate IP2X [NEMA 2] DIN Enclosure
- Six (6) Current Channel Inputs and Three (3) Voltage Channel Inputs
- Supports Current Transformers with 60A, 120A, 200A, 400A, 600A, 800A, 1,000A with standard safety protected 333mV output
- <1% (Voltage) and 0.85% +/- 0.15% of Full-Scale CT Rating (Current and Watts) Power Quality Data Accuracy
- Data Communication – Wi-Fi, Bluetooth, and Cellular (Cat-1)
- Remote Firmware Update
- Measurement Category CAT III
- Product Life of 10 years
- Safety standard IEC 61010-1:2010, IEC 61010-2-30



ULL-101528

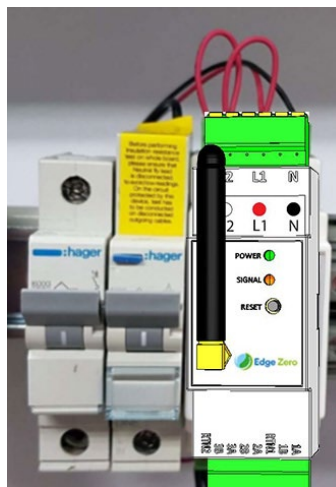
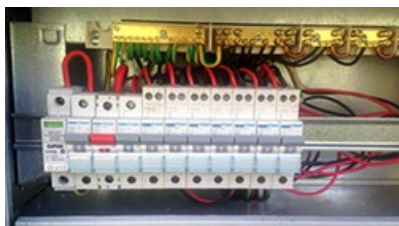


Type Accepted

No.: ESD-GEC-2509593

DESCRIPTION

The Edge Energy Monitor real time energy monitor device is a DIN mounted unit which is installed into the switchboard of a Residential or SME Commercial facility. The product will transmit full Power Quality and Energy data to a Cloud Database which is then used to provide usage analytics and energy insights to Customers via a mobile app experience. Any additional enhancement to its software can be updated remotely.



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Electrical Specifications	
Available Configurations	<i>Single-Phase or Three-Phase (Wye and Delta)</i>
Electrical Frequency	<i>50/60Hz</i>
Rated Voltage	<i>100-277VAC Line – Neutral, 1-Ph, 40mA 173-480VAC Line – Line, 3-Ph with Neutral</i>
Maximum Voltage	<i>305VAC Line – Neutral, 1-Ph 528VAC Line – Line, 3-Ph with Neutral</i>
Rated Current	<i>60A, 120A, 200A, 400A, 600A, 800A, 1000A split core current transformers. CT Input 333mVrms maximum</i>
Lightning Strike	<i>IEC61000-4-5 Class 1 500V</i>
Power Quality Data Accuracy	<i>Voltage < 1% Current/Watts 0.85% +/- 0.15% of Full-Scale CT Rating</i>
Power Factor Accuracy	<i>± 1 degree</i>
Power Quality Measurements	<i>vTHD, iTHD, individual harmonics up to 21st order</i>
Measurement Interval	<i>30 seconds, 60 seconds, and 15 minutes (data saving mode) at 8kHz sampling. Default 30 seconds</i>
Transmission Interval	<i>60 seconds and 15 minutes intervals (data saving mode) Default 60 seconds</i>
Communication Outage data logging	<i>10 days of 15-minute interval data stored if offline and uploaded to server once reconnected.</i>
Current Sense Channels	<i>1 – 6 circuits for Single-Phase and 1 – 2 circuits for Three-Phase.</i>
Operating Temperature Range	<i>-10°C to 60 °C [14°F to 140°F] Ambient</i>
Data and Event Logging	
Power Quality Data	<i>Critical Parameters: Voltage per line, Current per channel, Power per channel, Power Factor per channel, THD per voltage and current channel Non-Critical Parameters (per minute instantaneous): Frequency per line, Harmonics per current & voltage channels (odd harmonics from 3rd to 21st)</i>
Event Logging	<i>Over Voltage(L-N): >253Vac; default value but configurable. Under Voltage(L-N): <216Vac; default value but configurable. Over Frequency: >52 Hz; default value but configurable. Under Frequency: <48 Hz; default value but configurable. Maximum Voltage THD: >5%; default value but configurable.</i>
Connectivity	
Communications Options	<i>Wi-Fi, Bluetooth, and Cellular (CAT-1)</i>
Communications Architecture	<i>Periodic reporting to a central IoT Cloud server</i>
Systems Logs	<i>Fully configurable measurement interval with 10 days Communication Outage Data Retention</i>

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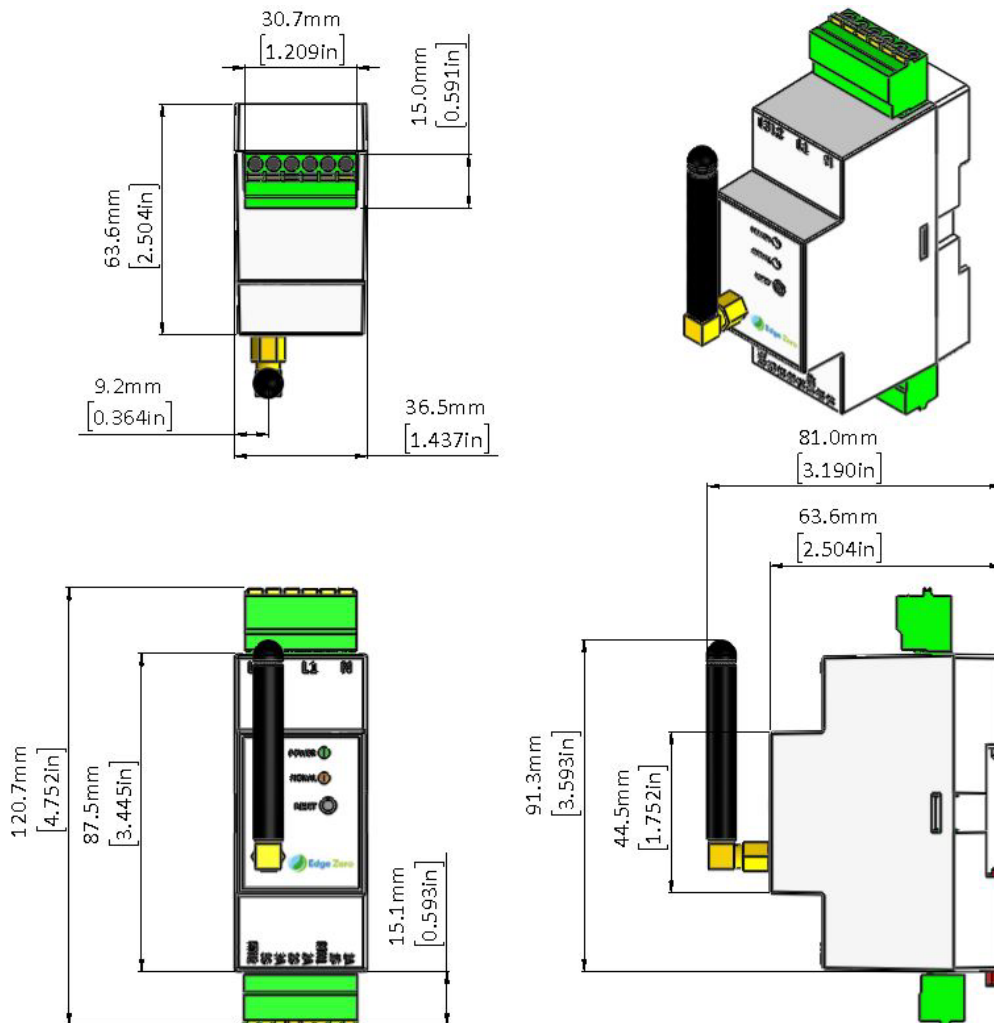
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Mechanical and Environmental	
Dimensions	Two-pole, 35mm [1.38in] DIN package
Weight	100g [3.53 oz]
IP Rating	IP2X [NEMA 2]
Operating Temperature and Humidity	-10°C to 60°C [14°F to 140°F], 0-95% RH non-condensing
Storage Temperature	-30°C to 80°C [-22°F to 176°F]
Operating Altitude	1000m [3280.8FT]

Compliance	
Safety Test and Compliance	- IEC 61010-1:2017 - IEC61010-2-30:2017 (Second Edition)
Other approval	- NTC Approval - RCM Mark Approval

Dimension (in mm)



ENERGY MONITOR PART NUMBERS – EE-409-001

Wi-Fi + Cellular

CAT-1: EE-409-001

LED indicators for Wi-Fi & Cellular Connectivity

Device Status (Wi-Fi/4G Cat-1/LTE Cat-M1)						Power LED	Wi-Fi LED	Cellular LED
Power to Hardware	Hardware Error	Cellular Hardware Communication	Wi-Fi Network Connection	Cellular Network Connection	Cloud Server Connection	(Green)	(Amber)	(Blue)
OFF	X	x	x	x	x	OFF	OFF	OFF
ON	CRITICAL ERROR	x	x	x	x	OFF	OFF	OFF
ON	NONE	NO	x	x	x	ON (Solid)	SLOW BLINK (1Hz) alternate Amber and Blue	
ON	NONE	YES	WPS Configuration	x	x	ON (Solid)	SLOW BLINK (1Hz)	OFF
ON	NONE	YES	AP Configuration	x	x	ON (Solid)	FAST BLINK (4Hz)	OFF
ON	NONE	YES	DISCONNECTED	DISCONNECTED	x	ON (Solid)	OFF	OFF
ON	NONE	YES	DISCONNECTED	CONNECTED	DISCONNECTED	ON (Solid)	OFF	PULSE (every 5 Sec)
ON	NONE	YES	DISCONNECTED	CONNECTED	CONNECTED	ON (Solid)	OFF	ON (Solid) SLOW BLINK (1Hz) if RSSI < -85dBm
ON	NONE	YES	CONNECTED	x	DISCONNECTED	ON (Solid)	PULSE (every 5 Sec)	OFF
ON	NONE	YES	CONNECTED*	x	CONNECTED	ON (Solid)	ON (Solid)	OFF

Contact

EDGEZERO PTY LTD

<https://edgezero.co/>