RUGGED RATED

PoE Power Over Ethernet

RUGGEDMAX™

Network Design Flexibility

The RP100 is a configuration free plug and play device suitable for any power over Ethernet connection, supporting both IEEE 802.3af and 802.3at Power over Ethernet standards in one box.

- Supports a wide range of AC and DC input voltages
- Space saving compact design with DIN rail or panel mount
- Reduces cabling, connection and power supply requirements for PoE devices

Safety and Performance

The RP100 has the same certifications as protection and control devices providing the confidence and assurance of continued operation even in the worse conditions.

- Automatic detection of remote power devices
- Over-current protection, over and under voltage protection
- -40°C to +85°C temperature rating

Key Features

The RuggedCom RP100 provides the flexibility to power remote PoE devices using standard Cat 5 cable. Converging data and power onto a single cable saves cost, space and labor for new and existing installations. Compatible with the latest 802.3at high power PoE standard and backwards compatible with low power 802.3af PoE devices, the RP100 provides versatility and investment protection to handle future demands for increased power. The RP100 is RuggedRated™ providing the ultimate in network reliability while IEC 61850-3 and IEEE 1613 electric utility substation certifications guarantees the RP100 will provide uninterrupted operation in the harshest of environments. The RP100 delivers unprecedented EMI immunity and performance for the most mission critical networks where a single lost message can impact operation. The RP100 is ideal to implement utility networks as part of the Smart Grid solution.

Substation Rated:
- IEC 61850-3
- IEEE 1613
- -40 to +85°C operating (no fans)

Industrial Design:
- Panel or DIN mounting
- Lightweight Cast Aluminum Enclosure
- LED indicators for link, activity, and speeds LED aids in field trouble-shooting

Performance:
- Configuration free, plug and play operation
- 802.3at / af compliant or RM version for connection to RuggedMAX products
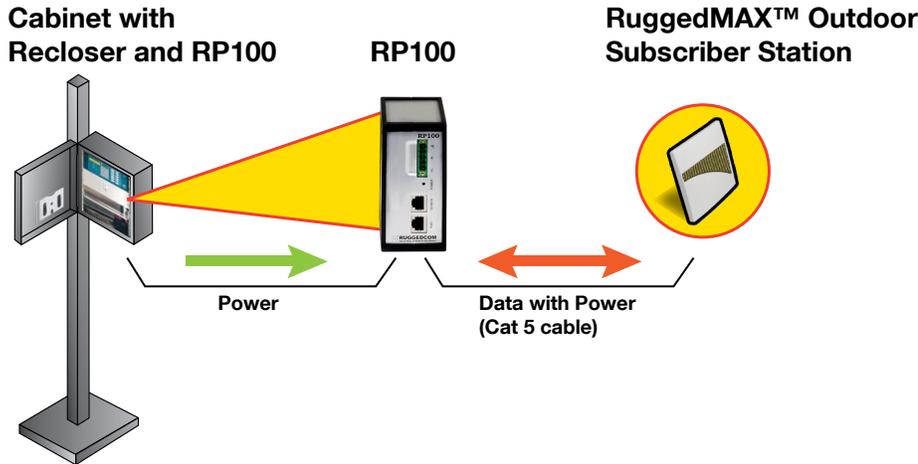- Rated up to 32.7 W

Support and Service:
- 5 Year Warranty
- Global 24x7x365 Technical Action Center
- Personalized Support

Benefits and Applications

Unmatched Reliability

The RP100 provides stability and performance under high levels of temperature variations, EMI stress and voltage fluctuations that occur in electrical and industrial applications.

- RuggedRated™, -40°C to +85°C temperature rating
- IEEE 1613 and IEC 61850-3 compliance means continued network uptime and operation in harsh environments

RUGGEDCOM
ISO 9001
REGISTERED

RP100 Power over Ethernet Applications

Distribution Automation

RuggedPower™ PoE Injector

Cabinet with Recloser and RP100   **RP100**   **RuggedMAX™ Outdoor Subscriber Station**

Power

Data with Power (Cat 5 cable)
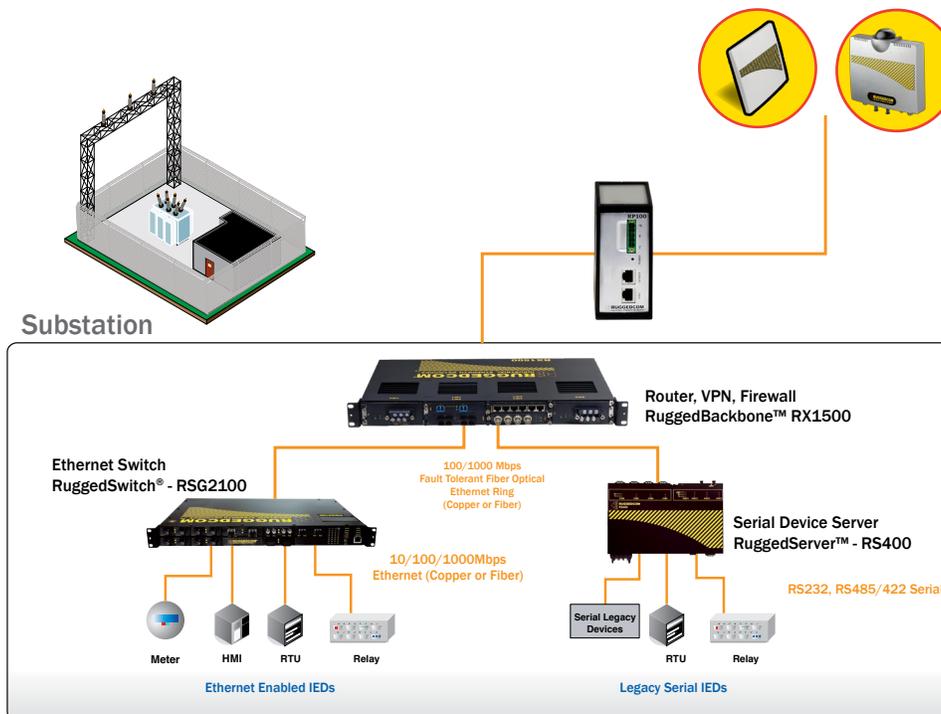
Small form factor power supply integrates in recloser controller cabinet and allows users to power the RuggedMAX™ subscriber unit from the recloser auxiliary power (which is backed up by battery) Takes in low voltage DC or Hi voltage AC/DC and converts to 48 volt power feed for the subscriber unit.

SCADA

The RP100 can be used to provide station power like 125 VDC or 48 VDC to power the RuggedMAX™ outdoor subscriber station and base station units. This allows electric power companies a complete WiMAX solution which is substation hardened, ideal for SCADA applications.

Substation

Router, VPN, Firewall RuggedBackbone™ RX1500

Ethernet Switch RuggedSwitch® - RSG2100

100/1000 Mbps Fault Tolerant Fiber Optical Ethernet Ring (Copper or Fiber)

Serial Device Server RuggedServer™ - RS400

10/100/1000Mbps Ethernet (Copper or Fiber)

RS232, RS485/422 Serial

Serial Legacy Devices

Meter   **HMI**   **RTU**   **Relay**

RTU   **Relay**

Ethernet Enabled IEDs   **Legacy Serial IEDs**

Technical Specifications

Interfaces
- One 100BaseTX Input
- One 100BaseTX 802.3at compliant output
- LED Status Indicators

Power
- Input voltages of 10-60 VDC and 88-300VDC or 85-264VAC for worldwide operability
- Integrated power supply eliminates need for an external power transformer
- Screw down terminal blocks ensure reliable maintenance free connections
- CSA/UL 60950 safety approved to +85°C

Environmental
- -40 to +85°C (operating and storage) (no fans)
- 5 to 95% relative humidity (non-condensing)
- Hazardous Locations: Class 1, Div 2
- Ingress Protection: IP40 (1mm objects)

Physical
- Height: 4.625"/11.75cm
- Width: 2.225"/5.65cm
- Depth: 3.75"/9.52cm
- Weight: 2.2lbs / 1.0kg
- Ingress Protection: IP40 (1mm objects)
- Enclosure: Lightweight Cast Aluminum
- Mounting: DIN rail or panel

Approvals
- ISO: Designed and manufactured using a ISO9001: 2000 certified quality program
- CE Marking
- Emissions: FCC Part 15 (Class A), EN55022 (CISPR22 Class A)
- Safety: cCSAus (Compliant with CSA C22.2 No. 60950, UL60950, EN60950)

EMI Immunity and Environmental Compliance
- IEC 61000-6-2 Industrial (Generic)
- IEC 61800-3 Industrial (Variable Speed Drive Systems)
- IEC 61850-3 Electric Utility Substations
- IEEE 1613 Class 2 Electric Utility Substations
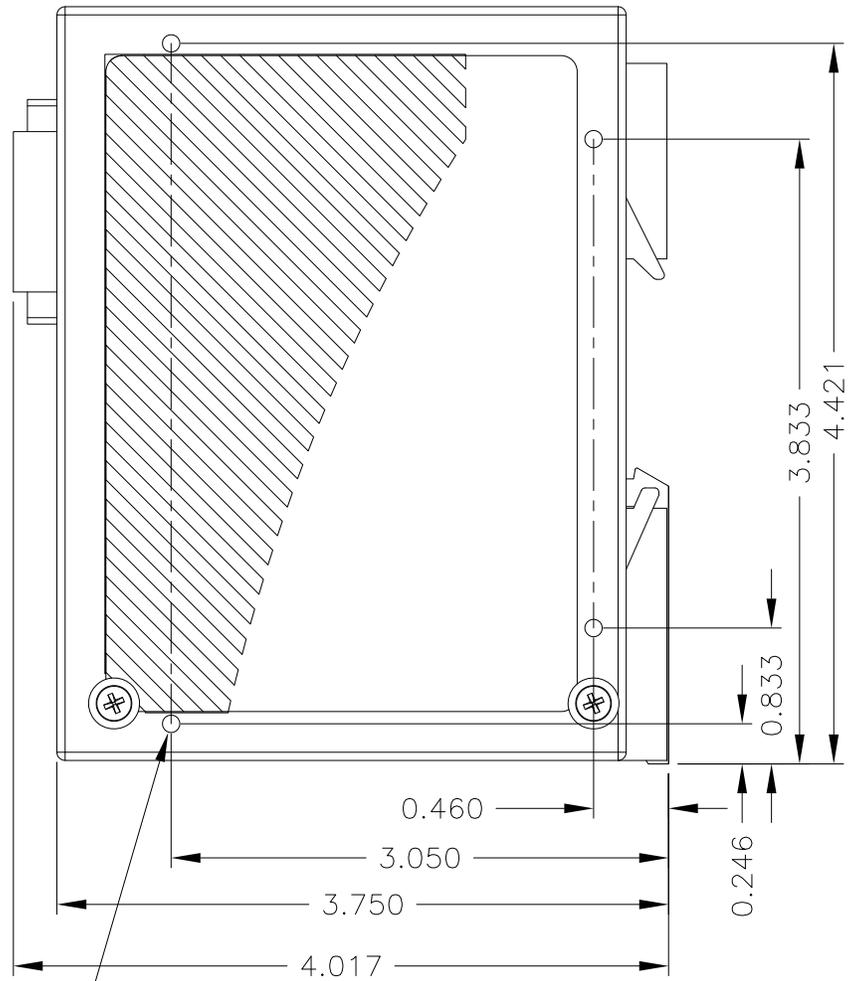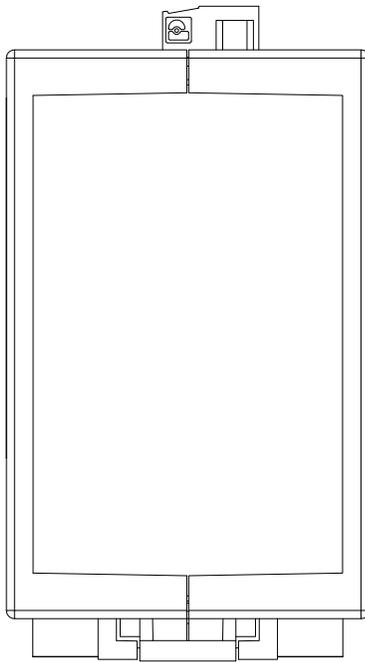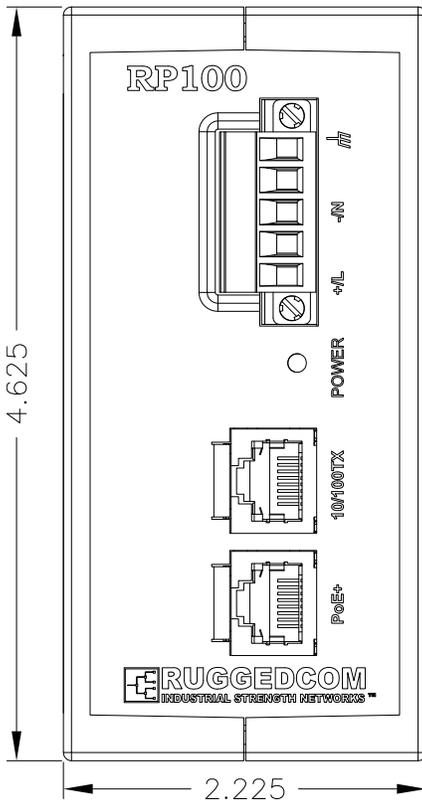- NEMA TS 2 Traffic Control Equipment

IEEE Compliance
- 802.3 10BaseT
- 802.3u 100BaseTX
- 802.3af / 802.3at

Warranty
- 5 Years - Applicable to design and manufacturing related product defects

Mechanical Drawing

RP100

4.625

2.225

+IL -IN

POWER

10/100TX

PoE+

RUGGEDCOM
INDUSTRIAL STRENGTH NETWORKS™

3.833

4.421

0.833

0.460

3.050

3.750

4.017

0.246

(4X) #6−32 x 0.210 DEEP

Order Codes

RP100 - ____ - _____- ____
PS   PD   MOD

PS: Power Supply
- HI= 88-300VDC or 85-264VAC
- LO= 10-60 VDC

PD: Power Delivery
- AT = Standard 802.3at
- RM = RuggedMax Power Delivery (RuggedMax devices only)

MOD: Manufacturing Modifications
- XX = None
- C01 = Conformal Coating

Mounting Options
- DIN rail mounting is standard

Example Order Codes:

RP100- LO-AT- XX
RP 100 with 10-60 VDC, 2 X 10/100 Tx Port, Standard 802.3 at PoE

RP100- LO-RM-C01
RP 100 with 10-60 VDC, 2 X 10/100 TX ports, RuggedMAX™ PoE, Conformal coating

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