## Expert PDU Energy 8311 Series

Metered PDU with 7, 8 or 20 outlets with integrated current metering and monitoring

### Features
- 7, 8 or 20 load outlets on front panel
- Metering of energy, current, power factor, phase angle, frequency, voltage and active / apparent / reactive power
- 2 energy meters per phase, one meter continuously, the other resettable
- Residual current metering type A (8311-2, -4, -16)
- Illuminated two-line LCD display
- Interface for optional sensors for environmental monitoring (temperature, humidity and air pressure)
- Easy configuration by web browser, Windows or Linux tool
- Firmware update via Ethernet during operation
- IPv6-ready
- HTTP/HTTPS, e-mail (SSL, STARTTLS), DHCP, Syslog
- SNMPv1, v2c, v3 (Get/Traps)
- TLS 1.0, 1.1, 1.2
- Radius and Modbus TCP protocol supported
- Configuration and control via Telnet
- Low internal power consumption
- Developed and manufactured in Germany

### Electrical Connections
- Power supply safety socket CEE 7/4, max. 16 A
- Load outlets:
  - 7 x safety socket CEE 7/3 (8311-1, -2)
  - 8 x IEC C13 (8311-15, -16)
- Ethernet connector RJ45 (10/100 Mbit/s)
- Sensor interface (RJ45) for optional sensor

### Technical Details
- 19 inch, 1 rack unit
- LxHxD (without brackets): 43.5 x 4.5 x 4.5 cm (8311-1, -2, -3, -4), 95 x 4.5 x 4.5 cm (8311-15, -16)
- Weight: 1.1 kg (8311-1, -2, -3, -4), 1.7 kg (8311-15, -16)
- Operating temperature: 0-50 °C
- Storage temperature: -20 - 70 °C
- Relative humidity: 0 - 95 % (non-condensing environment)

### Order Code | Product | Feature | Operating Voltage | Max. Current
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8311-1 | Expert PDU Energy 8311-1 | Energy metering, 7x safety socket | 230 V | 16 A
8311-2 | Expert PDU Energy 8311-2 | Energy metering, 7x safety socket, residual current metering type A | 230 V | 16 A
8311-3 | Expert PDU Energy 8311-3 | Energy metering, 8x IEC C13 | 230 V | 16 A
8311-4 | Expert PDU Energy 8311-4 | Energy metering, 8x IEC C13, residual current metering type A | 230 V | 16 A
8311-15 | Expert PDU Energy 8311-15 | Energy metering, 4x IEC C19, 16 x IEC C13 | 230 V | 16 A
8311-16 | Expert PDU Energy 8311-16 | Energy metering, 4x IEC C19, 16 x IEC C13, residual current metering type A | 230 V | 16 A

7101 | Temperature Sensor 7101 | Cable sensor with splash-proof sensor head (IP64), RJ45 connector, -20°C to +80°C, cable ca. 2.3 m
7104 | Temperature Sensor 7104 | Cable sensor, RJ45 connector, -20°C to +80°C, cable ca. 2.3 m
7105 | Temp., Humidity Sensor 7105 | Cable sensor, RJ45 connector, -20°C to +80°C, 0-90% humidity, cable ca. 2.3 m
7106 | Temp., Humidity, Air pressure Sensor 7106 | Cable sensor, RJ45 connector, 20°C to +80°C, 0-90% humidity, 300-1100 hPa, cable ca. 2.3 m

* Sensors also available with calibrated temperature range: 7104-2, 7105-2, 7106-2

7201 | Temperature Sensor 7201 | Box case with RJ45 socket, -20°C to +80°C
7202 | Temp./Humidity Sensor 7202 | Box case with RJ45 socket, -20°C to +80°C, 0-90% humidity

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