

Expert Power Control 8221-1 and Expert Power Control 8226-1

12-fold switched PDU with integrated current metering and monitoring

Dual-Circuit
Unit-metered
Outlet-metered (8226)



Front panel of **Expert Power Control 8221-1**
and **Expert Power Control 8226-1**

The completely refined PDUs are perfectly suitable for optimizing professional ICT environments. Both 19 inch appliances occupy one rack unit in the switching cabinet and contribute to enhanced energy efficiency and failure safety of existing network components. Besides energy distribution and metering, **Expert Power Control 8221-1** and **8226-1** dispose of appropriate features for monitoring and switching of up to twelve connected loads. Furthermore the dual-circuit PDUs allow event-based switching due to configured thresholds for energy and sensor values. The devices support current security standards such as IPv6 addresses, SSL encryption, SNMPv3 as well as Telnet, Radius and Modbus TCP. Both integrated sensor ports enable real-time monitoring of temperature, humidity and air pressure in the rack. Thanks to webinterface, app and compatible network monitoring software (e.g. PRTG, Nagios or PowerIQ), both local and remote accesses can easily be realized.

Highlights at a glance

- ▶ 2 independent banks of 6 load outlets
- ▶ Energy metering per bank (**8221-1**)
- ▶ Energy metering per bank and per load outlet (**8226-1**)
- ▶ Event-based switching
- ▶ Total switching power: 7500 W
- ▶ IPv6, SSL and SNMPv3
- ▶ Telnet, Radius and Modbus TCP supported
- ▶ Integrated overvoltage protection

1. Switched

Both PDUs are fed by two separate power supplies (IEC C20) and dispose of twelve load outlets on the rear panel (IEC C13). These power ports can be switched individually by webinterface, app, SNMP, serial interface or button on the device. To meet increasing power density in modern ICT infrastructures, a total switching power of 7500 W respectively 32 A can be realized through two separate power supplies.

2. Metered

Power ports are arranged in two separate groups at six power ports each. Integrated energy meters allow unit metering per group (**8221-1** and **8226-1**) as well as outlet metering per port (**8226-1**). Because of accurate metering electronic, a reliable consumption measurement and load estimation is possible by parameters such as current, voltage, phase angle, power factor and frequency.

3. Monitored

Two integrated sensor interfaces for optional available sensors enable customers to comfortably monitor environment temperature, humidity and air pressure. Due to real-time surveillance and early overload and threshold alarms, critical system conditions and down-times can be avoided. Thanks to plug-and-play sensors, startup operation is quickly done.



12



2

IPv6, SSL,
SNMPv3 & Telnet

Features

- 12 Power Ports individually switchable directly on the device, via HTTPS, SNMP, command line tool and RS232 serial interface
- Status and Power-up delay (0...9999 seconds) adjustable individually for each Power Port after power blackout
- Latency time of 1 second prevents simultaneous power-up of multiple Power Ports
- Paired switching of outlets possible, e.g. output 1 of bank 1 simultaneously with output 1 of bank 2
- Programmable turn-on/turn-off sequence
- 2 energy meters per bank and for **8226-1** also per load outlet; one meter continuously, the other resettable
- Metering of energy, current, power factor, phase angle, frequency, voltage and active / apparent / reactive power
- A clearly visible LED display per bank for total current, IP address, sensor data and error reports
- 12-channel watchdog, an individual watchdog (ICMP/TCP) can be assigned for each Power Port
- 2 independent power inputs of 230 V for the same or different phases
- Integrated overvoltage protection prevents damage of device and of connected consumers (L-N 10 kA), status retrievable over network
- 2 interfaces for optional sensors for environmental monitoring (temperature, humidity and air pressure)
- Event-based port switching possible by set sensor thresholds
- Internal beeper for acoustic alarm for set sensor thresholds
- Comfortable 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
- Telnet, Radius and Modbus TCP support
- Access control via IP Access Control List
- Android and iOS app *Gude Control* allows access from anywhere
- Low internal power consumption, typ. 5 W / 7 W (**8221-1** / **8226-1**)
- Developed and manufactured in Germany

Electrical Connections

- 2 Power supplies (IEC C20, max. 16 A, 230 V)
- 2 x 6 Power Ports (IEC C13, max. 10 A)
- Ethernet connector RJ45 (10/100 Mbit/s)
- Serial interface RS232 (Sub-D 9-pin)
- 2 RJ45 interfaces for optional sensors

Technical Details

- Dimensions: 19 inch, 1 rack unit
- LxHxD: 43.9 x 4.4 x 19.5 cm (without brackets)
- Weight: ca. 2.9 kg
- Operating temperature: 0-50 °C
- Storage temperature: -20 - 70 °C
- Relative humidity: 0 - 95 % (non-condensing environment)

Power connectors on rear panel on **Expert Power Control 8221-1** and **Expert Power Control 8226-1**



Order code	Product	Feature	Operating Voltage	Max. Current
8221-1	Expert Power Control 8221-1	Energy metering per bank	230 V	2 x 16 A
8226-1	Expert Power Control 8226-1	Energy metering per bank and per power port	230 V	2 x 16 A
7101	Temperature Sensor 7101	-20°C to +80°C		
7102	Temp./Humidity Sensor 7102	-20°C to +80°C / 0-90% humidity		
7103	Air pressure/Temp./Humidity Sensor 7103	300-1100 hPa / -20°C to +80°C / 0-90% humidity, cable ca. 2,3 m		
7201	Temperature Sensor 7201	-20°C to +80°C		
7202	Temp./Humidity Sensor 7202	-20°C to +80°C / 0-90% humidity		
7203	Air pressure/Temp./Humidity Sensor 7203	300-1100 hPa / -20°C to +80°C / 0-90% humidity		
0807	Cable Holder 0807	13 fixation bridges for load cables		



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