# Switched and metered PDU with integrated AC/DC power supply

new

Manage and secure your AV and IT devices with one compact IP power solution

The Expert Power Control 8290-1 is an **intelligent AC/DC Power Distribution Unit** (PDU) for professional AV and IT installations. It combines **AC outlets** with **low-voltage DC outputs** in one compact device - all of which can be switched on and off individually and remotely.

Four IEC C13 outlets, four configurable DC terminals and one USB-C Power Delivery allow integrators to power a wide range of media and network devices without bulky external power bricks.

The results: **best use of installation space**, **fewer potential points of failure** and **cleaner cable management**.



***Size matters*** - This compact PDU stands out for its small form factor and is ideal for space-saving AV environments like huddle rooms

With **metering of electrical parameters**, plug-and-play **sensor support** and **secure communication** via HTTPS, SSH, SNMP, Modbus TCP and MQTT, the Expert Power Control 8290-1 is built for reliable, low-maintenance infrastructure.

Integrated monitoring, scheduling and watchdog functions help administrators detect unresponsive equipment and reboot individual outputs remotely or automatically. The Expert Power Control 8290-1 therefore supports **high system availability** while **reducing unnecessary service visits**.

## Features

- 9 outlets individually switchable directly on the device, via HTTPS, SNMP, or command line tool
- Low-voltage outputs freely adjustable from 5 V to 24 V
- Combined DC power supply of max. 180 W
- USB-C Power Delivery 3.1 with up to 100 W
- Scheduled and event-based switching
- Zero Voltage Switching (ZVS) avoids high switching currents by switching at the zero crossing of the AC voltage
- Self-healing feature: An individual watchdog (ICMP/TCP) for each power outlet automatically reboots in case of lock-up
- Switching through programmable sensor thresholds
- Each DC outlet protected by eFuses in case of short circuits
- Metering of energy, current, power factor, phase angle, frequency, voltage and active / apparent / reactive power
- Power monitoring for each DC outlet
- Integrated surge protection (SPD) type 3
- 1 interface for plug-n-play sensors for environmental monitoring (temperature, humidity and air pressure)
- RJ45 network connection
- IPv6, SNMPv3, Telnet, Radius, ModbusTCP, MQTT (3.1.1)
- Support for the 802.1X standard for port authentication
- HTTP/HTTPS, e-mail (SSL, STARTTLS), SSH, DHCP, Syslog
- Access control via IP Access Control List
- Developed and manufactured in Germany
- Low internal power consumption

## Electrical Connections

- Power supply: 1x IEC C14, max. 10 A, 100-240 V
- 4x IEC C13 power outlets, max. 10 A (Bank A)
- 4x terminal outlets, 5-24 V DC freely configurable (Bank B, C)
- 1x USB-C PD outlet, max. 5 A, 5–20 V (Bank D)
- 1x Ethernet RJ45 (10/100 Mbit/s)
- 1x RJ45 sensor input for plug-&-play sensors
- 1 x terminal for passive signal input

## Technical Details

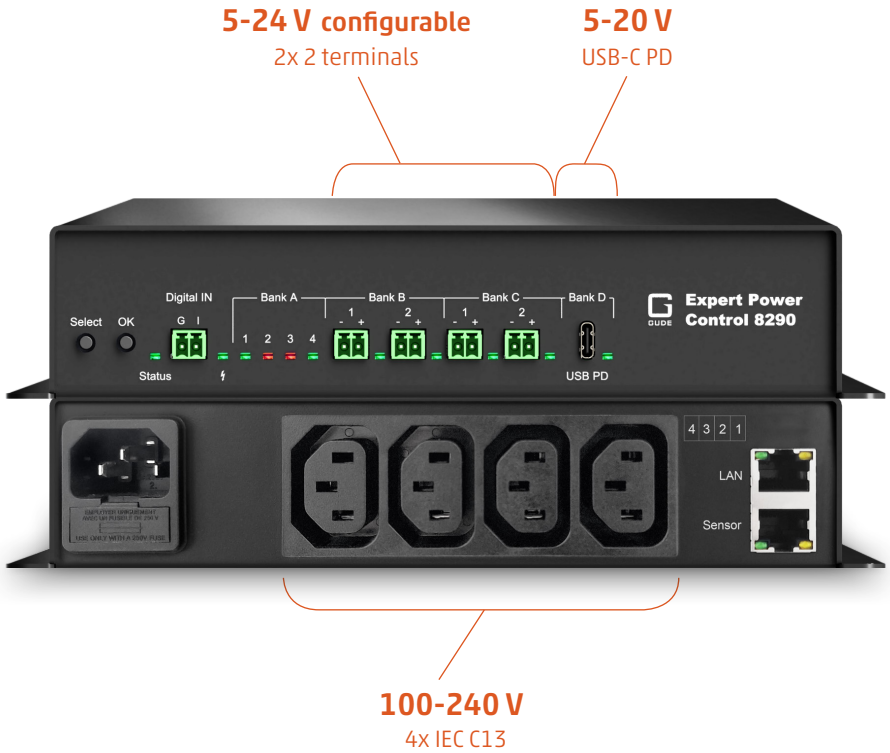
- Dimensions (W x D x H): 197 x 216 x 43 mm without mounting brackets
- Weight: approx. 1460 g
- Combined DC power supply: max. 180 W
- Operating temperature: 0-50 °C
- Storage temperature: -20 – 70 °C
- Relative humidity: 0 – 95 % (non condensing)

Support of well-known AV technology manufacturers:

AMX by HARMAN · biamp. · CRESTRON · Extron · Q-SYS

## Key Benefits

- **9 switched AC/DC outputs**: 4 AC outlets plus flexible low-voltage DC and USB-C PD outputs
- Native 5 V to 24 V supply helps **eliminate external adapters** and saves valuable rack space
- **Power cycling** of hung-up devices: automatically by watchdog, remotely via network or on-site
- **4-layer security**: short-circuit protection by eFuse, type 3 surge protection, SSL/SSH and 802.1X
- **IP monitoring and control** via REST API, HTTPS, SNMP, Telnet, SSH, Modbus TCP and MQTT
- **Energy-saving schedules** and detailed metering for transparent power management
- Additional sensors for **pro-active monitoring temperature and humidity** in AV spaces
- **Fast integration** thanks to free plug-and-play drivers for media control and monitoring platforms




**Front and rear panel of Expert Power Control 8290-1:** Smart PDU in compact housing with various AC/DC connections and voltage options

| Order Code | Product | Features |
|---|---|---|
| 8290-1 | Expert Power Control 8290-1 | 4 x IEC C13 (100-240 V AC), configurable DC terminals (5 V-24 V), 1 x USB-C PD, power input IEC C14; dimensions W x D x H: 197 x 216 x 43 mm without brackets |
| 7205 | Temp.,Humidity Sensor 7205 | Plug-n-play sensor, RJ45 connector, -20°C to +80°C, 0-90% humidity |
| 7206 | Temp., Humidity, Air pressure Sensor 7206 | Plug-n-play sensor, RJ45 connector, -20°C to +80°C, 0-90% humidity, 300-1100 hPa |
| 7209 | Temp.,Humidity, Signal Sensor 7209 | Plug-n-play sensor, RJ45 connector, -20°C to +80°C, 0-90% humidity, 2 passive signal inputs |



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