

DIN rail power supply unit PS24V05AA



- Single-phase input: 115 VAC to 230 VAC
- Output: 24 VDC up to 60 °C operating temperature
- Flexible output power from 95 watts to 120 watts
- Robust metal housing with DIN rail mounting
- High overload without shutdown, up to 50%
- 3 different protection modes for the output

<https://www.wachendorff-prozesstechnik.de/en/PS24V05AA>

Description

The PS24V05AA power supply units are high-quality switched-mode power supply units for DIN rail mounting. They impress with their compact and intelligent design as well as their robust metal housing. The output voltage is easy and simple to adjust (22 VDC to 27 VDC) and is highly stable even with temperature fluctuations and load changes. In addition to short-circuit protection with 3 different output protection modes, overload and overvoltage protection at the output also ensure a high level of safety. The output power can be easily increased by connecting additional PS24V05AA power supply units of the same type in parallel.

Product details

Entrance:	Nominal input voltage: 115 VAC to 230 VAC Input voltage range: 90 VAC to 135 VAC (115 VAC); 170 VAC to 264 VAC Frequency range: 47 Hz to 63 Hz Inrush current (V_n and I_n load) I^2t : $\leq 36 \text{ A} \leq 5 \text{ msec.}$ Input current (115 VAC to 230 VAC): 1.91 A to 0.96 A Internal fuse: T 4 A External fuse (recommended): 10 A (B characteristic)
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Output:	Output voltage (V_n) Factory setting $\pm 3\%$: 24 VDC Adjustment range output voltage (V_{adj}): 22 VDC to 27 VDC Start with large load (capacitive load): $\leq 50,000 \mu\text{F}$ Switch-on delay after applying the supply: 1 second (max.) Continuous current at 24 VDC $< 40^\circ\text{C}$ (I_n): 5 A (permanent) Continuous current at 24 VDC $< 50^\circ\text{C}$ (I_n): 4.5 A (permanent) Continuous current at 24 VDC $< 60^\circ\text{C}$ (I_n): 4 A (permanent) Power boost current at 24 VDC / 60°C (I_n): $I_n(60^\circ\text{C}) \times 1.5 \geq 3 \text{ Min.}$ Max. Current at overload approx. 4 VDC (perm.): $I_{\text{max}} = I_n 60^\circ\text{C} \times (1.8 \text{ to } 2.2)$ Max. Max. current for short circuit (I_{cc}): 12 A In hiccup mode; max. 2 seconds: 12 A Permanent; Continuous mode: 12 A Hold-up time (min. VAC) V_n In 40°C : typically 20 milliseconds Remaining residual ripple: $\leq 80 \text{ mVpp}$ Efficiency: $\geq 89\%$ Overtemperature protection: Yes Output shutdown and automatic restart of the module. Short-circuit protection at the output (adjustable via jumper): A. Manual reset B. Hiccup mode (cyclical clocking of the output until the short circuit is eliminated) C. Reset when power supply is reconnected (output switches off until power supply unit is restarted) Maximum power dissipation: 15 watts at 40°C Overload protection: Yes Overvoltage protection at the output: Yes (typically 35 VDC) Parallel operation possible: Yes
Isolation:	Input/output insulation voltage: 3,000 VAC Insulation voltage input/PE: 1,605 VAC Insulation voltage output/PE: 500 VAC

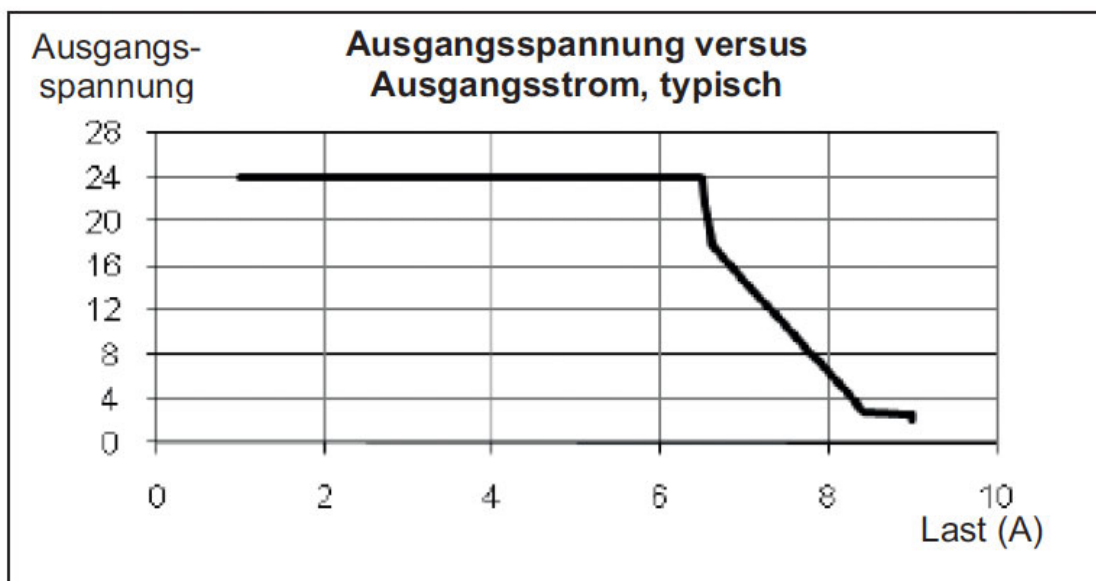
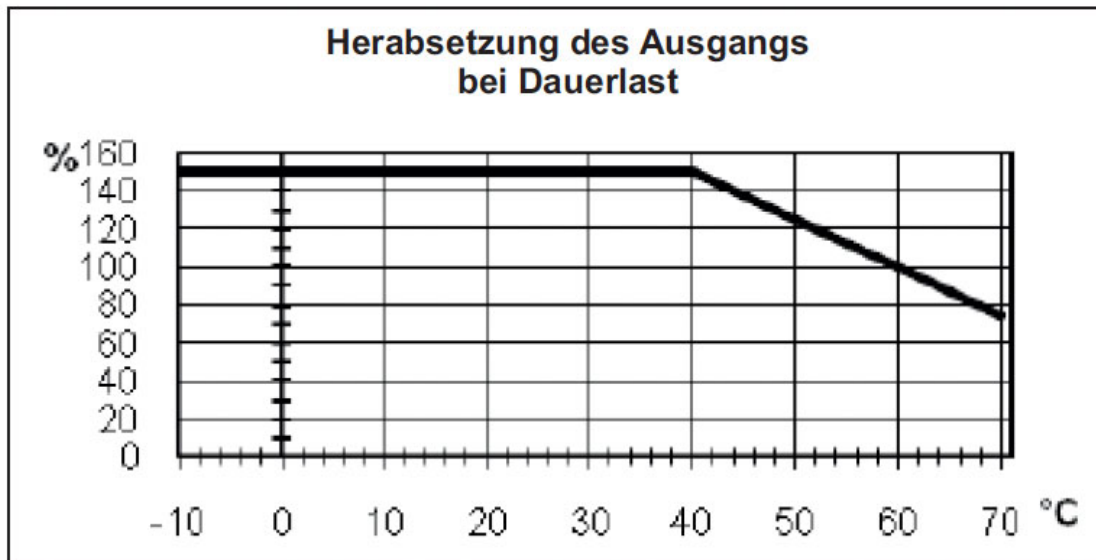
Standards and approvals:	CE according to EMC 2004/108/EC and Low Voltage Directive 2006/95/EC, UL approval according to UL508, RoHS-compliant
Reliability:	MTBF according to IEC 61709 > 500,000 hours
Protection class:	IP20
Housing:	Sturdy metal housing. Mounting on the DIN rail. Dimensions (WxHxD): 55 mm x 110 mm x 105 mm.
Connection:	Fixed terminal strips with 2.5 mm ² cross-section.
Relative humidity:	max. 95 % rH at 25 °C, non-condensing.
Ambient temperature:	Operation: -25 °C to +70 °C (> 60 °C leads to a reduction of the operating values by 2.5 % / °C) Storage: -40 °C to +85 °C.
Weight:	approx. 500 g
Scope of delivery:	Device, operating instructions.
Manufacturer:	ADEL System s.r.l., Italy

Products Order no.

PS24V05AA	Power supply unit for DIN rail, 230 VAC, 24 VDC 5 A
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Drawings

Graphic





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