

DIN rail power supply unit PS24V75AB



- 2-phase input: 230 VAC to 500 VAC
- Output: 24 VDC up to 60 °C operating temperature
- Flexible output power from 120 watts to 180 watts
- Robust metal housing for top-hat rail mounting
- High overload without shutdown; up to 50 %
- 3 different protection modes for the output

<https://www.wachendorff-prozesstechnik.de/en/PS24V75AB>

Description

The PS24V75AB power supply unit is a high-quality switched-mode power supply unit for top-hat rail mounting. It impresses with its compact and intelligent design as well as its 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 PS24V75AB power supply units in parallel.

Product details

Entrance:	Nominal input voltage: 230 VAC / 400 VAC / 500 VAC Input voltage range: 187 VAC to 264 VAC (230 VAC) 330 VAC to 550 VAC (400 VAC to 500 VAC) Frequency range: 47 Hz to 63 Hz Inrush current (Vn and In load) I _{2t} : ≤ 28 A ≤ 5 msec. Input current (230 / 400 / 550 VAC): 1.45 A / 0.83 A / 0.68 A Internal fuse: T 4 A External fuse (recommended): 10 A (B characteristic)
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Output:

Output voltage (Vn) Factory setting
+/- 3 %: 24 VDC
Adjustment range output voltage (Vadj): 22 VDC to 27 VDC
Start with large load (capacitive load): ≤ 50,000 µF
Switch-on delay after applying the supply: 1 second (max.)
Continuous current at 24 VDC < 40 °C (In): 7.5 A (permanent)
Continuous current at 24 VDC < 50 °C (In): 6 A (permanent)
Continuous current at 24 VDC < 60 °C (In): 5 A (permanent)
Power boost current at 24 VDC / 60 °C (In): In (60 °C) x 1.5 ≥ 3 Min.
Max. Current at overload approx. 4 VDC (perm.): I_{max} = In 60 °C x (1.8 to 2.2)
Max. Max. current for short circuit (I_{cc}): 16 A
In hiccup mode; max. 2 seconds: 16 A
Permanent; Continuous mode: 16 A
Hold-up time (min. VAC) Vn In 40 °C: typically 20 milliseconds
Remaining residual ripple: ≤ 80 mVpp
Efficiency: ≥ 89 %
Overtemperature protection: Yes, shutdown of the output 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: 22 watts
Overload protection: Yes
Overvoltage protection at the output: Yes (typically 35 VDC)
Parallel operation possible: Yes
Relay output opens when the output voltage drops below 20 VDC +/- 5%.
Max. 1 A @ 30 VDC / 60 VAC resistive load.

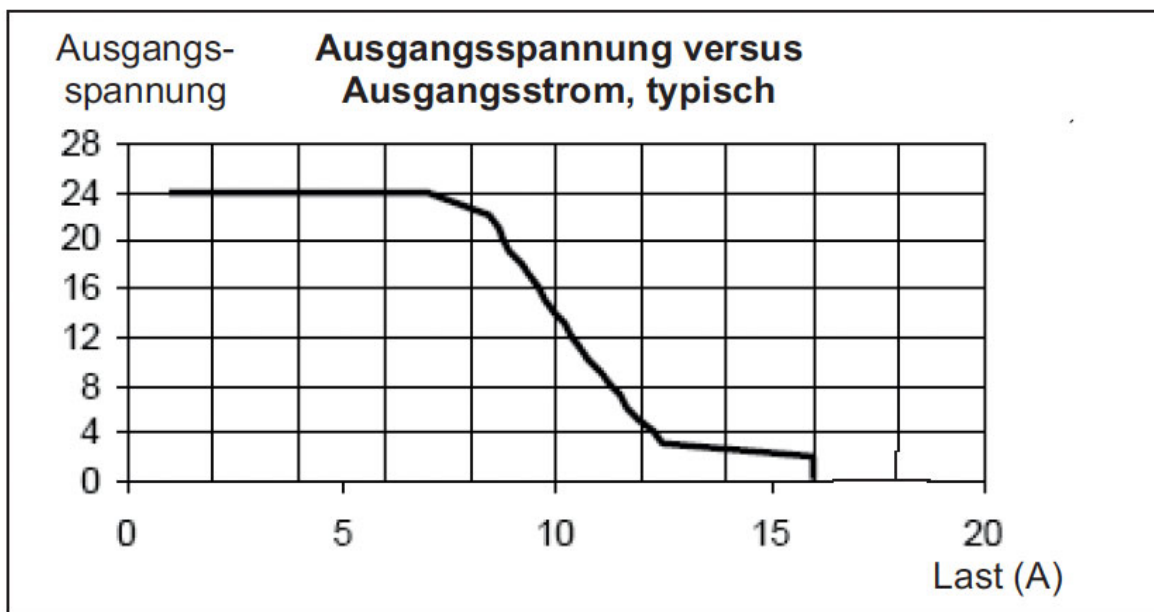
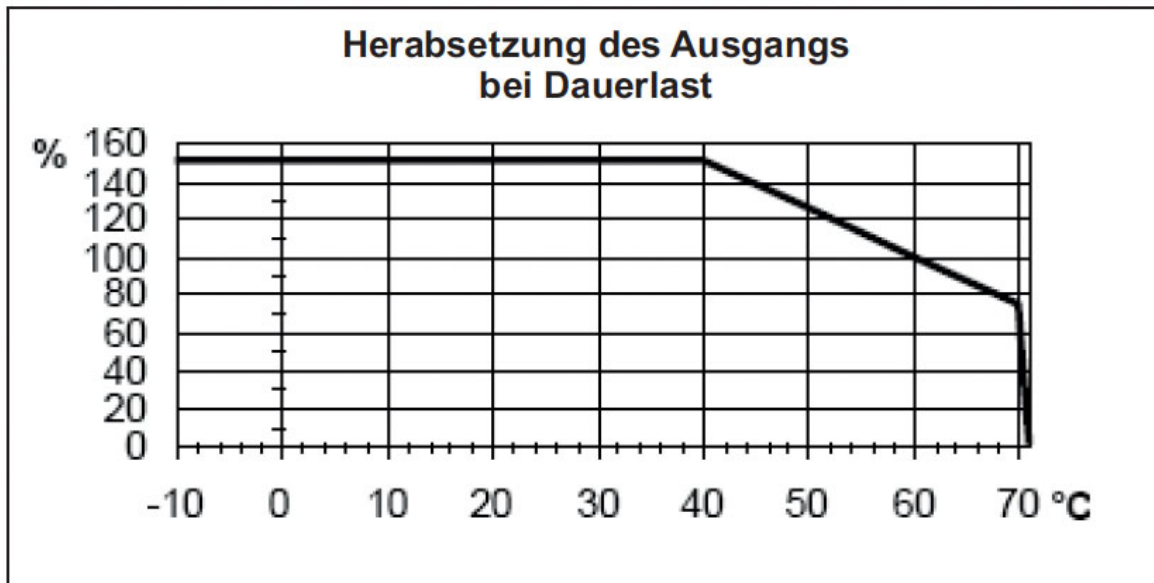
Isolation:	Input/output insulation voltage: 3,000 VAC Insulation voltage input/PE: 1,605 VAC Insulation voltage output/PE: 500 VAC
Standards and approvals:	CE according to EMC 2004/108/EEC and Low Voltage Directive 2006/95/EC, UL approval according to UL508, RoHS-compliant
Reliability:	MTBF according to IEC 61709 > 500,000 hours
Protection class:	IP20
Housing:	Sturdy metal housing. Mounting on the top-hat 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. 600 g
Scope of delivery:	Device, operating instructions.
Manufacturer:	ADEL System s.r.l., Italy

Products Order no.

PS24V75AB	Power supply unit for top-hat rail, 230 VAC - 400 VAC - 500 VAC to 24 VDC, 7.5 A (2/3 phases)
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Drawings

Graphic





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