





Q.PS-AD3-2405F

Power supplies with 24 VDC output

- Input rated voltage 230 / 400 - 500 VAC
- Output: 24 VDC $\pm 3\%$ / 5 A
- Power Boost: 7,5 A for at least 3 minutes, up to 60 °C
- 3 different modes for the short-circuit protection are selectable
- Overload protected
- Strong overload without switch-off
- „Power Good“-Relais
- IP 20
- Mounting on DIN rail
- Extremely small size



Figure	Product Range			
	Input	Output	Protection	Features
 <p>Q.PS-AD1</p>	Single phase 24 VAC / 40 VDC	24 VDC, 3 A 24 VDC, 5 A 24 VDC, 7 A	Short circuit Overload	
 <p>Q.PS-AD2-24xxF</p>	Single phase 115...240 VAC	24 VDC, 1,5...3 A 24 VDC, 5...7,5 A 24 VDC, 10...14 A	Short circuit Overload Overvoltage	Adjustable output voltage 22...27 VDC
 <p>Q.PS-AD3</p>	One- or Double-phase 230 / 400 - 500 VAC	24 VDC, 5...7,5 A	Short circuit Overload Overvoltage	Adjustable output voltage 22...27 VDC
 <p>Q.PS-ADB</p>	Single phase 110...230 VAC / 24VDC battery	24 VDC, 5 A	Short circuit Overload Overvoltage	Adjustable charging current 1...5 A, battery diagnostic and different charging modes

Applications

Control panels, where 24 VDC is required to supply PLC's, actors, sensors etc. But also power demanding loads such as solenoid valves, motors, lamps, etc. Can be used in applications for:

- Building automation
- Industrial automation
- Infrastructure plants, such as water or sewage treatment
- Machineries
- Material handling
- etc.

Norms and certifications

- The CE mark according to 2004/108/EC Electromagnetic Compatibility and low voltage directive 2006/95/EC

Electrical safety

- According to IEC/EN60950 (VDE0805) and EN50178 (VDE0160) for assembling devices. The unit must be installed according to IEC/EN60950.

EMC Generic

- Immunity according to EN61000-6-2
Emission according to EN61000-6-4

Functions

Q.PS-AD3-2405F

Input data

Input voltage	230 / 400 - 500 VAC
Input Voltage Range	187...264 / 330 - 550 VAC
Inrush Current (at U_n and I_n)	$\leq 17 \text{ A} \leq 5 \text{ ms}$
Frequency	47...63 Hz $\pm 6\%$
Input Current	1.5 / 0.8 A
Internal Fuse	4 A
External Fuse	Fast 10 A

Output data

Output Voltage (U_n) / Nominal Current (I_n)	24 VDC $\pm 3\%$ / 5 A
Adjustment range (U_{adj}) / Adjustment range (U_{adj})	22...27 VDC
Turn-On delay after applying mains voltage	1 s (max.)
Start up with capacitive load	$\leq 50.000 \mu\text{F}$

Continuous running current

Max. continuous current at $\leq 40 \text{ }^\circ\text{C}$	7.5 A
Max. continuous current at $\leq 50 \text{ }^\circ\text{C}$	6.0 A
Max. continuous current at $\leq 60 \text{ }^\circ\text{C}$	5.0 A
Power reserve (power boost) (within 3 min. $\leq 60 \text{ }^\circ\text{C}$)	7.5 A
Short-circuit current (I_{sc})	16 A
Hold-up Time (at 100...240 VAC)	in general 20 ms
Residual Ripple	$\leq 80 \text{ mVpp}$
Minimum load	No
Efficiency (at 50% I_n)	$\geq 91\%$
Short-circuit protection	Yes
Overload protection	Yes
Over Voltage Output protection	Yes (max 35 VDC)
Parallel connection	Yes

Climatic data

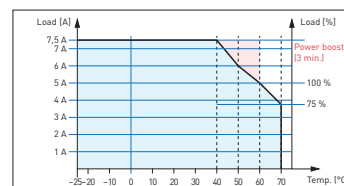
Ambient Temperature (operation)	-25...+70 $^\circ\text{C}$ (De rating $>60 \text{ }^\circ\text{C}$, 2.5%/°C)
Ambient Temperature (storage)	-40...+85 $^\circ\text{C}$
Humidity: no moisture condensation	95% at +25 $^\circ\text{C}$

General data

Isolation Voltage (Input/Output)	3000 VAC
Input / Ground isolation PE	1605 VAC
Output / Ground isolation PE	500 VAC
Degree of protection	IP 20
Pollution Degree Environment	2
Protection class	I. with PE connected
Dimension (w×h×d)	55 × 110 × 105 mm
Weight	approx 0.60 kg

Output characteristics

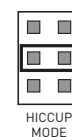
Output Derating Curve



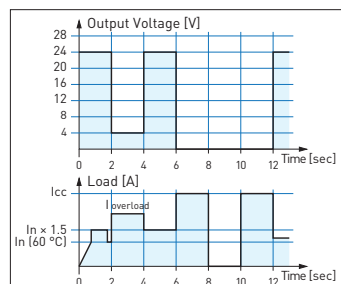
Mode

Hiccup-Mode

Automatic restart (default setting). The device tries to re-establish output voltage about every 2 seconds.

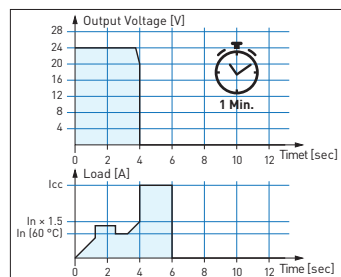


Characteristic



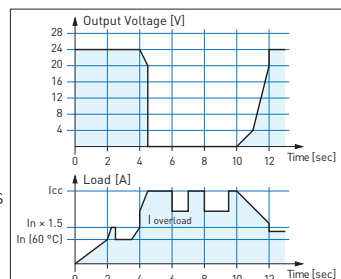
Manual Reset-Mode

In order to restart the output it is necessary to switch-off the input circuit for about 1 minute.

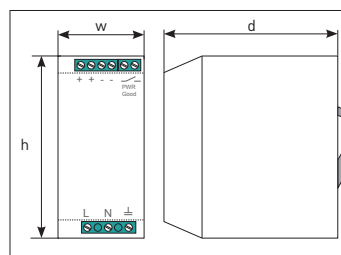


Continuous Out Mode

The output current is kept at high values with near zero voltage.



Dimensions



Contact

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