Q.PS-AD2-2405F

Power supplies with 24 VDC output

- Input rated voltage 115…230 VAC
- Output: 24 VDC ±3% / 5 A
- Power Boost: 7.5 A for at least 3 minutes, up to 60 °C
- Simple parallel connection by removing a jumper
- 3 different modes for the short-circuit protection are selectable
- Overload protection
- Strong overload without switch-off
- „Power Good"-Relais
- IP 20
- Mounting on DIN rail
- Extremely small size

Figure	Input	Output	Protection	Features
Q.PS-AD1 	Single phase 24 VAC / 40 VDC	24 VDC, 3 A 24 VDC, 5 A 24 VDC, 7 A	Short circuit Overload	
Q.PS-AD2-24xxF 	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
Q.PS-AD3 	Double-phase 400…480 VAC	24 VDC, 5…7.5 A	Short circuit Overload Overvoltage	Adjustable output voltage 22…26 VDC
Q.PS-ADB 	Single phase 110…230 VAC / 24 VDC 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.

Certifications

- The CE mark according to 2004/108/EC Electromagnetic Compatibility and low voltage directive 2006/95/EC
- cULus LISTED 508 Industrial Control Equipment
- EAC Mark of Conformity for Machinery Exports to Russia, Kazakhstan or Belarus

Electrical safety standards

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

EMC Generic standards

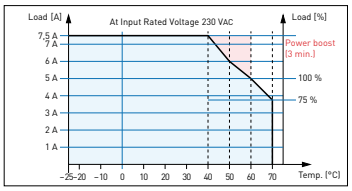
- Immunity according to EN61000-6-2
  Emission according to EN61000-6-4

Functions

	Q.PS-AD2-2405F
Input data	
Input voltage	115…230 VAC
Input Voltage Range	90…264 VAC
Inrush Current (at U_n and I_n)	≤ 11 A ≤ 5 ms
Frequency	47…63 Hz ± 6 %
Input Current (Input Rated Voltage)	2.8…1.0 A
Internal Fuse	4 A
External Fuse	Flink 10 A
Output data	
Output Voltage (U_n) / Nominal Current (I_n)	24 VDC ±3 % / 5 A
Adjustment range (U_{adj})	22…27 VDC
Turn-On delay after applying mains voltage	1 s (max.)
Start up with capacitive load	≤ 50.000 µF
Continuous running current	
Max. continuous current at ≤ 40 °C	7.5 A
Max. continuous current at ≤ 50 °C	6.0 A
Max. continuous current at ≤ 60 °C	5.0 A
Power reserve (power boost) (within 3 min. ≤ 60 °C)	7.5 A
Short-circuit current (Icc)	16 A
Hold-up Time (at 100…240 VAC)	in general 20 ms
Residual Ripple	≤ 80 mVpp
Minimum load	No
Efficiency (at 50 % I_n)	≥ 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 °C (Derating >60 °C, 2.5%/°C)
Ambient Temperature (storage)	–40… +85 °C
Humidity; no moisture condensation	95 % at +25°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

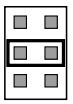
Output Derating Curve

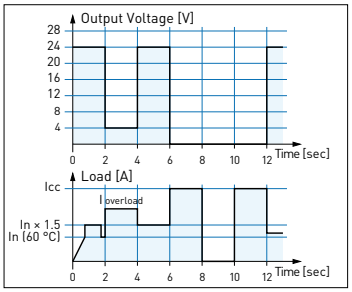


Mode Jumper Charakteristik

Hiccup-Mode

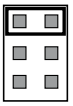
Automatic restart (default setting). The device tries to re-establish output voltage about every 2 seconds.

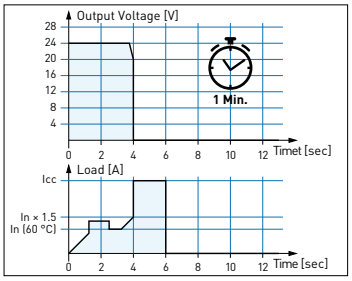




Manual Reset-Mode

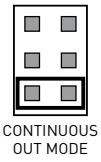
In order to restart the output it is necessary to switch-off the input circuit for about 1 minute.

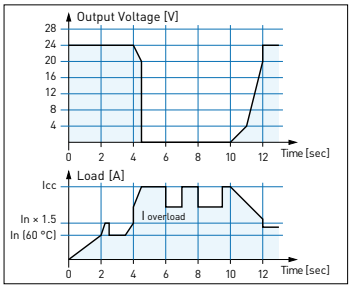




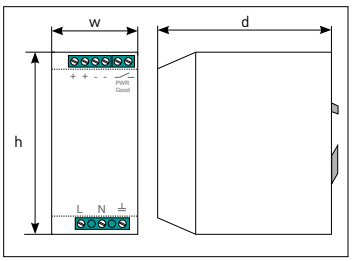
Continuous Out Mode

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





Dimensions



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