**Q.PS-AD3-2405F**

**Power supplies with 24 VDC output**

- Input rated voltage 230 / 400…500 VAC
- Output: 24 VDC ±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

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**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

**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

**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 ± 6 %
- **Input Current (Input Rated Voltage)**: 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 ±3 % / 2.5 A
- **Adjustment range (\(U_{n}\))**: 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 \(\leq 40^\circ\text{C}\): 7.5 A
- Max. continuous current at \(\leq 50^\circ\text{C}\): 6.0 A
- Max. continuous current at \(\leq 60^\circ\text{C}\): 5.0 A
- Power reserve (power boost) (within 3 min. \(\leq 60^\circ\text{C}\)): 7.5 A
- Short-circuit current (\(I_{cc}\)): 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 + 3 modes
- Overload protection: Yes
- Over Voltage Output protection: Yes (max 35 VDC)
- Parallel connection: Yes

**Climatic data**
- Ambient Temperature (operation): \(-25…+70^\circ\text{C}\) (Derating >60°C, 2.5%/°C)
- Ambient Temperature (storage): \(-40…+85^\circ\text{C}\)
- 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 x h x d)**: 55 x 110 x 105 mm
- **Weight**: approx 0.60 kg

### Output characteristics

#### Output Derating Curve

![Output Derating Curve](image)

#### Mode

**Jumper Characteristik**

**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

![Dimensions](image)