





Q.PS-AD2-2410F

Power supplies with 24 Vdc output

- Input rated voltage 115...230 V_{ac}
- Output: 24 V_{dc} ±3% / 10 A
- Power Boost: 14 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
- IP20
- Mounting on DIN rail
- Extremely small size



| Figure | Product Range | | | |
|---|--|--|--|---|
| | Input | Output | Protection | Features |
|  <p>Q.PS-AD1</p> | Single phase 24 V _{ac} / 40 V _{dc} | 24 V _{dc} , 3 A 24 V _{dc} , 5 A 24 V _{dc} , 7 A | Short circuit Overload | |
|  <p>Q.PS-AD2-24xxF</p> | Single phase 115...240 V _{ac} | 24 V _{dc} , 1.5...3 A 24 V _{dc} , 5...7.5 A 24 V _{dc} , 10...14 A | Short circuit Overload Overvoltage | Adjustable output voltage 22...27 V _{dc} |
|  <p>Q.PS-AD3</p> | Double-phase 400...480 V _{ac} | 24 V _{dc} , 5 A | Short circuit Overload Overvoltage | Adjustable output voltage 22...26 V _{dc} |
|  <p>Q.PS-ADB</p> | Single phase 110...230 V _{ac} / 24 V _{dc} battery | 24 V _{dc} , 5 A | Short circuit Overload Overvoltage | Adjustable charging current 1...5 A, battery diagnostic and different charging modes |

Applications

Control panels, where 24 V_{dc} 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-AD2-2410F

Input data

| | |
|--|---------------------------|
| Input voltage | 115...230 V _{AC} |
| Input Voltage Range | 90...264 V _{AC} |
| Inrush Current (at U _n and I _n) | ≤ 16 A ≤ 5 ms |
| Frequency | 47...63 Hz ± 6% |
| Input Current (Input Rated Voltage) | 3.3...2.2 A |
| Internal Fuse | 6.3 A |
| External Fuse | Fast 16 A |

Output data

| | |
|--|-------------------------------|
| Output Voltage (U _n) / Nominal Current (I _n) | 24 V _{DC} ±3% / 10 A |
| Adjustment range (U _{adj}) | 22...27 V _{DC} |
| Turn-On delay after applying mains voltage | 1 sec (max) |
| Start up with capacitive load | ≤ 50.000 μF |

Continuous running current

| | |
|---|-------------------------------|
| Max. continuous current at ≤ 40 °C | 14 A |
| Max. continuous current at ≤ 50 °C | 12 A |
| Max. continuous current at ≤ 60 °C | 10 A |
| Power reserve (power boost) (within 3 min. ≤ 60 °C) | 14 A |
| Short-circuit current (I _{sc}) | 30 A |
| Hold-up Time (at 100...240 V _{AC}) | in general 20 ms |
| Residual Ripple | ≤ 80 mV _{pp} |
| Minimum load | No |
| Efficiency (at 50% I _n) | ≥ 91% |
| Short-circuit protection | Yes |
| Overload protection | Yes |
| Over Voltage Output protection | Yes (max 35 V _{DC}) |
| Parallel connection | Yes |

Climatic data

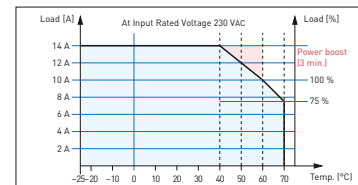
| | |
|------------------------------------|--|
| Ambient Temperature (operation) | -25...+70 °C (Derating >60 °C. 2.5%/°C) |
| Ambient Temperature (storage) | -40... +85 °C |
| Humidity; no moisture condensation | 95% at +25°C |

General data

| | |
|----------------------------------|----------------------|
| Isolation Voltage (Input/Output) | 3000 V _{AC} |
| Input / Ground isolation PE | 1605 V _{AC} |
| Output / Ground isolation PE | 500 V _{AC} |
| Degree of protection | IP20 |
| Pollution Degree Environment | 2 |
| Protection class | I, with PE connected |
| Dimension (w×h×d) | 72 × 115 × 135 mm |
| Weight | approx 0.65 kg |

Output characteristics

Output Derating Curve

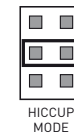


Mode

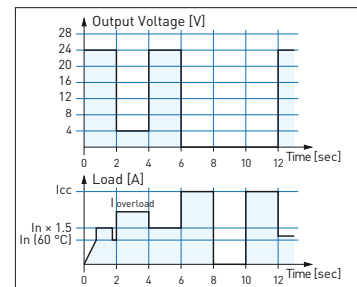
Hiccup-Mode

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

Jumper

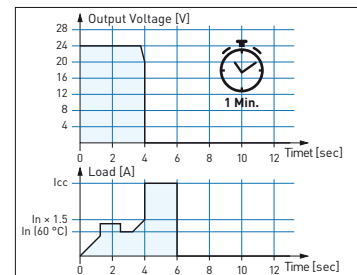


Characteristic



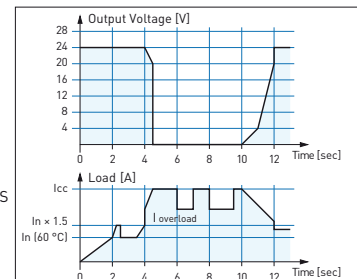
Manual Rest-Mode

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

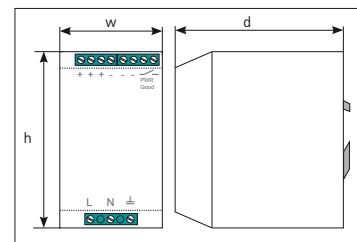


Continuous Out Mode

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



Dimensions



Contact

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