

SITOP POWER 24 V/3.5 A FOR S7-200

SITOP power 3.5, universal line stabilized power supply input:
120/230 V AC output: 24 V DC/3.5 A S7-200 design



| Input | |
|--|---------------------------------------|
| Input | 1-phase AC |
| Supply voltage | |
| <ul style="list-style-type: none"> • 1 at AC Rated value • 2 at AC Rated value • Note | 120 V 230 V Set via wire jumper |
| Input voltage | |
| <ul style="list-style-type: none"> • 1 at AC • 2 at AC | 93 ... 132 V 187 ... 264 V |
| Wide-range input | No |
| Overvoltage resistance | $2.3 \times V_{in}$ rated, 1.3 ms |
| Mains buffering at lout rated, min. | 20 ms; at $V_{in} = 187$ V |
| Rated line frequency 1 | 50 Hz |
| Rated line frequency 2 | 60 Hz |
| Rated line range | 47 ... 63 Hz |
| Input current | |
| <ul style="list-style-type: none"> • at rated input voltage 120 V • at rated input voltage 230 V | 1.65 A 0.95 A |
| Switch-on current limiting (+25 °C), max. | 33 A |

| | |
|---|---|
| Duration of inrush current limiting at 25 °C | |
| • maximum | 3 ms |
| I ² t, max. | 1 A ² ·s |
| Built-in incoming fuse | T 2.5 A/250 V (not accessible) |
| Protection in the mains power input (IEC 898) | Recommended: 2-pole miniature circuit breaker from 10 A characteristic C or from 6 A characteristic D |

Output

| | |
|---|---|
| Output | Controlled, isolated DC voltage |
| Rated voltage V _{out} DC | 24 V |
| Total tolerance, static ± | 5 % |
| Static mains compensation, approx. | 0.1 % |
| Static load balancing, approx. | 0.2 % |
| Residual ripple peak-peak, max. | 150 mV |
| Residual ripple peak-peak, typ. | 30 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 240 mV |
| Spikes peak-peak, typ. (bandwidth: 20 MHz) | 110 mV |
| Product function Output voltage adjustable | No |
| Output voltage setting | - |
| Status display | - |
| On/off behavior | No overshoot of V _{out} (soft start) |
| Startup delay, max. | 1 s |
| Voltage rise, typ. | 80 ms |
| Rated current value I _{out} rated | 3.5 A |
| Current range | 0 ... 3.5 A |
| Supplied active power typical | 84 W |
| Short-term overload current | |
| • on short-circuiting during the start-up typical | 5 A |
| • at short-circuit during operation typical | 5 A |
| Duration of overloading capability for excess current | |
| • on short-circuiting during the start-up | 100 ms |
| • at short-circuit during operation | 100 ms |
| Parallel switching for enhanced performance | Yes |
| Numbers of parallel switchable units for enhanced performance | 5 |

Efficiency

| | |
|---|------|
| Efficiency at V _{out} rated, I _{out} rated, approx. | 84 % |
| Power loss at V _{out} rated, I _{out} rated, approx. | 16 W |

Closed-loop control

| | |
|--|-------|
| Dynamic mains compensation (V _{in} rated ±15 %), max. | 0.3 % |
| Dynamic load smoothing (I _{out} : 50/100/50 %), U _{out} ± typ. | 3 % |

| | |
|----------------------|------|
| Setting time maximum | 5 ms |
|----------------------|------|

Protection and monitoring

| | |
|--|--|
| Output overvoltage protection | Yes, according to EN 60950-1 |
| Current limitation, typ. | 3.8 A |
| Property of the output Short-circuit proof | Yes |
| Short-circuit protection | Constant current characteristic up to typ. 14 V, electronic shutdown below that, automatic restart |
| Enduring short circuit current RMS value <ul style="list-style-type: none"> • maximum | 4 A |
| Overload/short-circuit indicator | - |

Safety

| | |
|---|---|
| Primary/secondary isolation | Yes |
| Galvanic isolation | Safety extra low output voltage V_{out} according to EN 60950-1 |
| Protection class | Class I |
| Leakage current <ul style="list-style-type: none"> • maximum | 3.5 mA |
| CE mark | Yes |
| UL/cUL (CSA) approval | cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289 |
| Explosion protection | - |
| FM approval | - |
| CB approval | No |
| Marine approval | - |
| Degree of protection (EN 60529) | IP20 |

EMC

| | |
|-----------------------------|------------------|
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | EN 61000-3-2 |
| Noise immunity | EN 61000-6-2 |

Operating data

| | |
|--|--|
| Ambient temperature <ul style="list-style-type: none"> • during operation <ul style="list-style-type: none"> — Note • during transport • during storage | 0 ... 60 °C with natural convection -40 ... +85 °C -40 ... +85 °C |
| Humidity class according to EN 60721 | Climate class 3K3, no condensation |

Mechanics

| | |
|--|--|
| Connection technology | screw-type terminals |
| Connections <ul style="list-style-type: none"> • Supply input • Output | L, N, PE: 1 screw terminal each for 0.5 ... 1.5 mm ² single-core/finely stranded L+: 1 screw terminal for 0.5 ... 1 mm ² ; M: 2 screw terminals for 0.5 ... 1 mm ² |

| | |
|--|---|
| • Auxiliary | - |
| Width of the enclosure | 160 mm |
| Height of the enclosure | 80 mm |
| Depth of the enclosure | 62 mm |
| Required spacing | |
| • top | 100 mm |
| • bottom | 100 mm |
| • left | 0 mm |
| • right | 0 mm |
| Weight, approx. | 0.5 kg |
| Product feature of the enclosure housing for side-by-side mounting | Yes |
| Installation | Snaps onto DIN rail EN 60715 35x7.5/15, wall mounting |
| MTBF at 40 °C | 714 286 h |
| Other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |