SIEMENS

## Data sheet 6EP1731-2BA00

SITOP POWER/DC/DC/48-220V/24V/0.375A
SITOP power 0.375 A, DC/DC Stabilized power supply input: 48-220V DC output: DC 24 V/0,375 A


Figure similar

| Input | |
|---|---|
| Input | DC voltage |
| Voltage range AC | 30 ... 187 V |
| supply voltage | |
| • at DC | 48 ... 220 V |
| input voltage | |
| • at DC | 30 ... 264 V |
| Wide-range input | Yes |
| Overvoltage resistance | - |
| Mains buffering | at Vin = 220 V |
| Mains buffering at Iout rated, min. | 10 ms; at Vin = 220 V |
| input current | |
| • at rated input voltage 48 V | 0.3 A |
| • at rated input voltage 220 V | 0.06 A |
| Switch-on current limiting (+25 °C), max. | 35 A |
| duration of inrush current limiting at 25 °C | |
| • typical | 3 ms |

| | |
|---|---|
| I²t, max. | 1.2 A²·s |
| Built-in incoming fuse | F 4 A/250 V (not accessible) |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker: from 6 A characteristic C, suitable for DC |

| Output | |
|---|---|
| Output | Controlled, isolated DC voltage |
| Rated voltage Vout DC | 24 V |
| Total tolerance, static ± | 3 % |
| Static mains compensation, approx. | 0.1 % |
| Static load balancing, approx. | 0.1 % |
| Residual ripple peak-peak, max. | 150 mV |
| Residual ripple peak-peak, typ. | 50 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 240 mV |
| Spikes peak-peak, typ. (bandwidth: 20 MHz) | 50 mV |
| product function output voltage adjustable | No |
| Output voltage setting | - |
| Status display | Green LED for 24 V OK |
| On/off behavior | No overshoot of Vout (soft start) |
| Startup delay, max. | 2.5 s |
| Voltage rise, typ. | 90 ms |
| Rated current value Iout rated | 0.375 A |
| Current range | 0 ... 0.375 A |
| • Note | +60 ... +70 °C: Derating 3%/K |
| supplied active power typical | 9 W |
| short-term overload current | |
| • at short-circuit during operation typical | 2.7 A |
| duration of overloading capability for excess current | |
| • at short-circuit during operation | 200 ms |
| Parallel switching for enhanced performance | No |

| Efficiency | |
|---|---|
| Efficiency at Vout rated, Iout rated, approx. | 66 % |
| Power loss at Vout rated, Iout rated, approx. | 4.6 W |

| Closed-loop control | |
|---|---|
| Dynamic mains compensation (Vin rated ±15 %), max. | 0.3 % |
| Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ. | 0.4 % |
| Load step setting time 50 to 100%, typ. | 2 ms |
| Load step setting time 100 to 50%, typ. | 2 ms |

| Protection and monitoring | |
|---|---|
| Output overvoltage protection | Yes, according to EN 60950-1 |
| Current limitation | 0.41 ... 0.49 A |

| | |
|---|---|
| property of the output short-circuit proof | Yes |
| Short-circuit protection | Electronic shutdown, automatic restart |
| enduring short circuit current RMS value | |
| • maximum | 0.9 A |
| Overload/short-circuit indicator | - |

| Safety | |
|---|---|
| Primary/secondary isolation | Yes |
| galvanic isolation | Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 |
| Protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| Degree of protection (EN 60529) | IP20 |

| Approvals | |
|---|---|
| CE mark | Yes |
| UL/cUL (CSA) approval | cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289, cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273 |
| Explosion protection | - |
| certificate of suitability NEC Class 2 | No |
| FM approval | - |
| CB approval | No |
| Marine approval | - |

| EMC | |
|---|---|
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | not applicable |
| Noise immunity | EN 61000-6-2 |

| environmental conditions | |
|---|---|
| ambient temperature | |
| • during operation | -25 ... +70 °C |
| — Note | with natural convection |
| • during transport | -40 ... +70 °C |
| • during storage | -40 ... +70 °C |
| Humidity class according to EN 60721 | Climate class 3K3, 5 … 95% no condensation |

| Mechanics | |
|---|---|
| Connection technology | screw-type terminals |
| Connections | |
| • Supply input | L+1, M1, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded |
| • Output | +: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm² |
| • Auxiliary | - |

| | |
|---|---|
| width of the enclosure | 22.5 mm |
| height of the enclosure | 80 mm |
| depth of the enclosure | 91 mm |
| required spacing | |
| • top | 50 mm |
| • bottom | 50 mm |
| • left | 0 mm |
| • right | 0 mm |
| Weight, approx. | 0.14 kg |
| product feature of the enclosure housing can be lined up | Yes |
| Installation | Snaps onto DIN rail EN 60715 35x7.5/15 |
| MTBF at 40 °C | 1 466 123 h |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |