



SITOP PSU100C/1ACDC/12VDC/6.5A

SITOP PSU100C 12 V/6.5 A stabilized power supply input: 120-230 V AC (110-300 V DC) output: 12 V DC/6.5 A *Ex approval no longer available*

Input

| | |
|--|---|
| type of the power supply network | 1-phase AC or DC |
| supply voltage at AC | |
| • minimum rated value | 100 V |
| • maximum rated value | 230 V |
| • initial value | 85 V |
| • full-scale value | 264 V |
| input voltage | |
| • at DC | 110 ... 300 V |
| design of input wide range input | Yes |
| overvoltage overload capability | 2.3 × Vin rated, 1.3 ms |
| operating condition of the mains buffering | at Vin = 230 V |
| buffering time for rated value of the output current in the event of power failure minimum | 20 ms |
| operating condition of the mains buffering | at Vin = 230 V |
| line frequency | |
| • 1 rated value | 50 Hz |
| • 2 rated value | 60 Hz |
| line frequency | 47 ... 63 Hz |
| input current | |
| • at rated input voltage 100 V | 1.6 A |
| • at rated input voltage 230 V | 0.8 A |
| current limitation of inrush current at 25 °C maximum | 31 A |
| I _{2t} value maximum | 3 A ² ·s |
| fuse protection type | internal |
| • in the feeder | Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C |

Output

| | |
|--|---------------------------------|
| voltage curve at output | Controlled, isolated DC voltage |
| output voltage at DC rated value | 12 V |
| output voltage | |
| • at output 1 at DC rated value | 12 V |
| relative overall tolerance of the voltage | 3 % |
| relative control precision of the output voltage | |
| • on slow fluctuation of input voltage | 0.5 % |
| • on slow fluctuation of ohm loading | 1 % |
| residual ripple | |
| • maximum | 200 mV |
| • typical | 80 mV |
| voltage peak | |
| • maximum | 300 mV |
| • typical | 80 mV |

| | |
|---|---|
| adjustable output voltage | 10.5 ... 12.9 V |
| product function output voltage adjustable | Yes |
| type of output voltage setting | via potentiometer |
| display version for normal operation | Green LED for output voltage OK |
| behavior of the output voltage when switching on | Overshoot of Vout approx. 1 % |
| response delay maximum | 1 s |
| voltage increase time of the output voltage | 500 ms |
| • typical | |
| output current | 6.5 A |
| • rated value | 6.5 A |
| • rated range | 0 ... 6.5 A; +55 ... +70 °C: Derating 1.6%/K; at +70 °C Iout rated 4.9 A |
| supplied active power typical | 78 W |
| product feature | Yes; Start-up with single nominal load only |
| • bridging of equipment | |
| number of parallel-switched equipment resources for increasing the power | 2 |
| Efficiency | |
| efficiency in percent | 86 % |
| power loss [W] | |
| • at rated output voltage for rated value of the output current typical | 12.5 W |
| • during no-load operation maximum | 0.75 W |
| Closed-loop control | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.1 % |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical | 3 % |
| setting time | |
| • load step 10 to 90% typical | 3 ms |
| • load step 90 to 10% typical | 3 ms |
| Protection and monitoring | |
| design of the overvoltage protection | Yes, according to EN 60950-1 |
| • typical | 7.2 A |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Electronic shutdown, automatic restart |
| display version for overload and short circuit | - |
| Safety | |
| galvanic isolation between input and output | Yes |
| galvanic isolation | Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178 |
| operating resource protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| • typical | 0.4 mA |
| protection class IP | IP20 |
| Approvals | |
| certificate of suitability | |
| • CE marking | Yes |
| • UL approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) |
| • CSA approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) |
| • cCSAus, Class 1, Division 2 | No |
| • ATEX | No |
| certificate of suitability | |
| • IECEx | No |
| • NEC Class 2 | No |
| • ULhazloc approval | No |
| • FM registration | No |
| type of certification CB-certificate | Yes |
| certificate of suitability | |
| • EAC approval | Yes |
| certificate of suitability shipbuilding approval | Yes |
| shipbuilding approval | ABS, DNV GL |
| Marine classification association | |

- American Bureau of Shipping Europe Ltd. (ABS)
- French marine classification society (BV)
- DNV GL
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)

Yes
No
Yes
No
No

EMC

standard

- for emitted interference
- for mains harmonics limitation
- for interference immunity

EN 55022 Class B
EN 61000-3-2
EN 61000-6-2

environmental conditions

ambient temperature

- during operation
- during transport
- during storage

-20 ... +70 °C; with natural convection
-40 ... +85 °C
-40 ... +85 °C

environmental category according to IEC 60721

Climate class 3K3, 5 ... 95% no condensation

Mechanics

type of electrical connection

- at input
- at output
- for auxiliary contacts

screw-type terminals

L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm²
+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²

-

52.5 mm

80 mm

100 mm

width of the enclosure

50 mm

height of the enclosure

50 mm

depth of the enclosure

0 mm

required spacing

0 mm

- top
- bottom
- left
- right

net weight

0.32 kg

product feature of the enclosure housing can be lined up

Yes

fastening method

Snaps onto DIN rail EN 60715 35x7.5/15

electrical accessories

Removable spring-type terminal 6EP1971-5BA00

MTBF at 40 °C

2 853 800 h

other information

Specifications at rated input voltage and ambient temperature +25 °C
(unless otherwise specified)

