



SITOP PSU100S/1AC/24VDC/10A

SITOP PSU100S 24 V/10 A stabilized power supply input: 120/230 V AC output: 24 V DC/10 A

Technical Product Detail Page

<https://i.siemens.com/1P6EP1334-2BA20>

input

|  |   |
|--|---|
| type of the power supply network   | 1-phase AC  |
| supply voltage at AC   | Automatic range selection   |
| supply voltage   | 120 V/230 V   |
| input voltage 1 at AC  | 85 ... 132 V  |
| input voltage 2 at AC  | 170 ... 264 V   |
| wide range input   | No  |
| overvoltage overload capability  | 2.3 × Vin rated, 1.3 ms   |
| 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 = 93/187 V   |
| line frequency   | 50/60 Hz  |
| line frequency   | 47 ... 63 Hz  |
| input current  |   |
| • at rated input voltage 120 V   | 4.49 A  |
| • at rated input voltage 230 V   | 1.91 A  |
| current limitation of inrush current at 25 °C maximum                                      | 60 A  |
| I2t value maximum  | 5.6 A²·s  |
| fuse protection type   | T 6.3 A/250 V (not accessible)                                    |
| fuse protection type in the feeder   | Recommended miniature circuit breaker: from 10 A characteristic C |

output

|  |                                 |
|--|---------------------------------|
| voltage curve at output                          | Controlled, isolated DC voltage |
| output voltage at DC rated value                 | 24 V                            |
| output voltage                                   |                                 |
| • at output 1 at DC rated value                  | 24 V                            |
| output voltage adjustable                        | Yes; via potentiometer          |
| adjustable output voltage                        | 22.8 ... 28 V                   |
| relative overall tolerance of the voltage        | 3 %                             |
| relative control precision of the output voltage |                                 |
| • on slow fluctuation of input voltage           | 0.1 %                           |
| • on slow fluctuation of ohm loading             | 1 %                             |
| residual ripple                                  |                                 |
| • maximum  | 150 mV                          |
| • typical  | 20 mV                           |
| voltage peak                                     |                                 |
| • maximum  | 240 mV                          |
| • typical  | 160 mV                          |
| display version for normal operation             | Green LED for 24 V OK           |

|  |  |
|--|--|
| type of signal at output   | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"                    |
| behavior of the output voltage when switching on   | Overshoot of $V_{out} < 3 \%$  |
| response delay maximum   | 0.3 s  |
| voltage increase time of the output voltage <ul style="list-style-type: none"> <li>• typical</li> </ul>  | 20 ms  |
| output current <ul style="list-style-type: none"> <li>• rated value</li> <li>• rated range</li> </ul>  | 10 A<br>0 ... 12 A; 12 A up to +45°C; +60 ... +70 °C: Derating 3%/K                |
| supplied active power typical  | 288 W  |
| short-term overload current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up typical</li> <li>• at short-circuit during operation typical</li> </ul>           | 32 A<br>32 A   |
| duration of overloading capability for excess current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up</li> <li>• at short-circuit during operation</li> </ul> | 1 000 ms<br>1 000 ms   |
| bridging of equipment  | Yes  |
| number of parallel-switched equipment resources for increasing the power   | 2  |
| <b>efficiency</b>  |  |
| efficiency in percent  | 90 %   |
| power loss [W] <ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> </ul>   | 25 W   |
| <b>closed-loop control</b>   |  |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical  | 0.3 %  |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical   | 3 %  |
| setting time <ul style="list-style-type: none"> <li>• load step 10 to 90% typical</li> <li>• load step 90 to 10% typical</li> </ul>  | 1 ms<br>1 ms   |
| <b>protection and monitoring</b>   |  |
| design of the overvoltage protection   | protection against overvoltage in case of internal fault $V_{out} < 33 \text{ V}$  |
| property of the output short-circuit proof   | Yes  |
| design of short-circuit protection   | Constant current characteristic  |
| response value current limitation  | 12 ... 14.6 A  |
| overcurrent overload capability <ul style="list-style-type: none"> <li>• in normal operation</li> </ul>  | overload capability 150 % $I_{out}$ rated up to 5 s/min                            |
| enduring short circuit current RMS value <ul style="list-style-type: none"> <li>• typical</li> </ul>   | 14.6 A   |
| <b>safety</b>  |  |
| galvanic isolation between input and output  | Yes  |
| galvanic isolation   | Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178          |
| operating resource protection class  | Class I  |
| leakage current <ul style="list-style-type: none"> <li>• maximum</li> <li>• typical</li> </ul>   | 3.5 mA<br>0.8 mA   |
| protection class IP  | IP20   |
| <b>EMC</b>   |  |
| standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>                           | EN 55022 Class B<br>EN 61000-3-2<br>EN 61000-6-2                                   |
| <b>standards, specifications, approvals</b>  |  |
| certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• UKCA marking</li> <li>• EAC approval</li> </ul>                               | Yes<br>Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259<br>Yes<br>Yes |

|   |   |
|---|---|
| • NEC Class 2   | No  |
| type of certification   |   |
| • BIS   | Yes; R-41183539, R-41188271   |
| • CB-certificate  | Yes   |
| MTBF at 40 °C   | 1 614 510 h   |
| <b>standards, specifications, approvals hazardous environments</b>            |   |
| certificate of suitability  |   |
| • IECEx   | No  |
| • ATEX  | No  |
| • ULhazloc approval   | No  |
| • FM registration   | No  |
| <b>standards, specifications, approvals marine classification</b>             |   |
| shipbuilding approval   | Yes   |
| Marine classification association   |   |
| • American Bureau of Shipping Europe Ltd. (ABS)                               | No  |
| • French marine classification society (BV)                                   | Yes   |
| • Det Norske Veritas (DNV)  | Yes   |
| • Lloyds Register of Shipping (LRS)   | No  |
| <b>standards, specifications, approvals Environmental Product Declaration</b> |   |
| Environmental Product Declaration   | Yes   |
| global warming potential [CO2 eq]   |   |
| • total   | 699.2 kg  |
| • during manufacturing  | 20.6 kg   |
| • during operation  | 677.8 kg  |
| • after end of life   | 0.6 kg  |
| <b>ambient conditions</b>   |   |
| ambient temperature   |   |
| • during operation  | -25 ... +70 °C; with natural convection   |
| • during transport  | -40 ... +85 °C  |
| • during storage  | -40 ... +85 °C  |
| environmental category according to IEC 60721                                 | Climate class 3K3, 5 ... 95% no condensation                                      |
| <b>connection method</b>  |   |
| type of electrical connection   | screw terminal  |
| • at input  | L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded   |
| • at output   | +, -: 2 screw terminals each for 0.5 ... 2.5 mm²                                  |
| • for auxiliary contacts  | Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm²                              |
| • for signaling contact   | 2 screw terminals for 0.5 ... 2.5 mm²   |
| <b>mechanical data</b>  |   |
| width × height × depth of the enclosure                                       | 70 × 125 × 120 mm   |
| installation width × mounting height  | 70 mm × 225 mm  |
| required spacing  |   |
| • top   | 50 mm   |
| • bottom  | 50 mm   |
| • left  | 0 mm  |
| • right   | 0 mm  |
| fastening method  | Snaps onto DIN rail EN 60715 35x7.5/15  |
| • DIN-rail mounting   | Yes   |
| • S7 rail mounting  | No  |
| • wall mounting   | No  |
| housing can be lined up   | Yes   |
| net weight  | 0.8 kg  |
| <b>accessories</b>  |   |
| electrical accessories  | Buffer module   |
| mechanical accessories  | Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20            |
| <b>further information internet links</b>                                     |   |
| internet link   |   |
| • to website: Industry Mall   | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> |
| • to web page: selection aid TIA Selection Tool                               | <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>   |

- to web page: power supplies
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://siemens.com/sitop>  
<https://siemens.com/cax>  
<https://support.industry.siemens.com>

#### additional information

other information

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

#### security information

security information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit [www.siemens.com/cybersecurity-industry](http://www.siemens.com/cybersecurity-industry). Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

#### Classifications

|        | Version | Classification |
|--------|---------|----------------|
| eClass | 14      | 27-04-07-01    |
| eClass | 12      | 27-04-07-01    |
| eClass | 9.1     | 27-04-07-01    |
| eClass | 9       | 27-04-07-01    |
| eClass | 8       | 27-04-90-02    |
| eClass | 7.1     | 27-04-90-02    |
| eClass | 6       | 27-04-90-02    |
| ETIM   | 10      | EC002540       |
| ETIM   | 9       | EC002540       |
| ETIM   | 8       | EC002540       |
| ETIM   | 7       | EC002540       |
| IDEA   | 4       | 4130           |
| UNSPSC | 15      | 39-12-10-04    |

#### Approvals Certificates

##### General Product Approval



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



[China RoHS](#)

##### General Product Approval

##### Maritime application



[Miscellaneous](#)

[Miscellaneous](#)

[BIS CRS](#)



other

Environment



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