



SITOP PSU100C/1ACDC/12VDC/2A

SITOP PSU100C 12 V/2 A stabilized power supply input: 100-230 V AC (110-300 V DC) output: 12 V DC/2 A

| General information                                                                        |                                                                                                 |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Technical Product Detail Page                                                              | <a href="https://i.siemens.com/1P6EP1321-5BA00">https://i.siemens.com/1P6EP1321-5BA00</a>       |
| 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                                                                                   |
| wide range input                                                                           | Yes                                                                                             |
| overvoltage overload capability                                                            | $2.3 \times V_{in \text{ rated}}$ , 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 $V_{in} = 230 \text{ V}$                                                                     |
| line frequency                                                                             | 50/60 Hz                                                                                        |
| line frequency                                                                             | 47 ... 63 Hz                                                                                    |
| input current                                                                              |                                                                                                 |
| • at rated input voltage 100 V                                                             | 0.63 A                                                                                          |
| • at rated input voltage 230 V                                                             | 0.31 A                                                                                          |
| current limitation of inrush current at 25 °C maximum                                      | 33 A                                                                                            |
| $I^2t$ value maximum                                                                       | 1.2 A <sup>2</sup> ·s                                                                           |
| fuse protection type                                                                       | internal                                                                                        |
| fuse protection type 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                                                                                            |
| output voltage adjustable                                                                  | Yes; via potentiometer                                                                          |
| adjustable output voltage                                                                  | 10.5 ... 12.9 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                                                                                  | 40 mV                                                                                           |

|                                                                                                                 |                                                                      |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| voltage peak                                                                                                    |                                                                      |
| • maximum                                                                                                       | 300 mV                                                               |
| • typical                                                                                                       | 50 mV                                                                |
| display version for normal operation                                                                            | Green LED for output voltage OK                                      |
| behavior of the output voltage when switching on                                                                | Overshoot of Vout approx. 5 %                                        |
| response delay maximum                                                                                          | 0.6 s                                                                |
| voltage increase time of the output voltage                                                                     |                                                                      |
| • typical                                                                                                       | 10 ms                                                                |
| output current                                                                                                  |                                                                      |
| • rated value                                                                                                   | 2 A                                                                  |
| • rated range                                                                                                   | 0 ... 2 A; +60 ... +70 °C: Derating 2%/K; at +70 °C Iout rated 1.6 A |
| supplied active power typical                                                                                   | 24 W                                                                 |
| bridging of equipment                                                                                           | Yes; Start-up with single nominal load only                          |
| number of parallel-switched equipment resources for increasing the power                                        | 2                                                                    |
| <b>efficiency</b>                                                                                               |                                                                      |
| efficiency in percent                                                                                           | 82 %                                                                 |
| power loss [W]                                                                                                  |                                                                      |
| • at rated output voltage for rated value of the output current typical                                         | 5.8 W                                                                |
| • during no-load operation maximum                                                                              | 0.75 W                                                               |
| <b>closed-loop control</b>                                                                                      |                                                                      |
| 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                                                                                   | 4 ms                                                                 |
| • load step 90 to 10% typical                                                                                   | 3 ms                                                                 |
| <b>protection and monitoring</b>                                                                                |                                                                      |
| design of the overvoltage protection                                                                            | < 60 V                                                               |
| property of the output short-circuit proof                                                                      | Yes                                                                  |
| design of short-circuit protection                                                                              | Electronic shutdown, automatic restart                               |
| • typical                                                                                                       | 2.4 A                                                                |
| <b>safety</b>                                                                                                   |                                                                      |
| galvanic isolation between input and output                                                                     | Yes                                                                  |
| galvanic isolation                                                                                              | Output voltage: SELV, ES1 (IEC 62368-1), DVC As (IEC 61204-7)        |
| operating resource protection class                                                                             | Class I                                                              |
| leakage current                                                                                                 |                                                                      |
| • maximum                                                                                                       | 3.5 mA                                                               |
| • typical                                                                                                       | 0.4 mA                                                               |
| protection class IP                                                                                             | IP20                                                                 |
| <b>EMC</b>                                                                                                      |                                                                      |
| standard                                                                                                        |                                                                      |
| • for emitted interference                                                                                      | EN 55022 Class B                                                     |
| • for mains harmonics limitation                                                                                | not applicable                                                       |
| • for interference immunity                                                                                     | EN 61000-6-2                                                         |
| <b>standards, specifications, approvals</b>                                                                     |                                                                      |
| certificate of suitability                                                                                      |                                                                      |
| • CE marking                                                                                                    | Yes                                                                  |
| • UL approval                                                                                                   | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259        |
| • EAC approval                                                                                                  | Yes                                                                  |
| • NEC Class 2                                                                                                   | No                                                                   |
| type of certification                                                                                           |                                                                      |
| • CB-certificate                                                                                                | Yes                                                                  |
| MTBF at 40 °C                                                                                                   | 3 737 060 h                                                          |
| <b>standards, specifications, approvals hazardous environments</b>                                              |                                                                      |
| certificate of suitability                                                                                      |                                                                      |
| • IECEx                                                                                                         | No                                                                   |

|                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• ATEX</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>                                                                                                                                                         | No<br>No<br>No                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>standards, specifications, approvals marine classification</b>                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                       |
| shipbuilding approval                                                                                                                                                                                                                                                    | Yes                                                                                                                                                                                                                                                                                                                                                                                                   |
| Marine classification association                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Lloyds Register of Shipping (LRS)</li> </ul>                                  | Yes<br>No<br>Yes<br>No                                                                                                                                                                                                                                                                                                                                                                                |
| <b>standards, specifications, approvals Environmental Product Declaration</b>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                       |
| Environmental Product Declaration                                                                                                                                                                                                                                        | Yes                                                                                                                                                                                                                                                                                                                                                                                                   |
| global warming potential [CO2 eq]                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>                                                                                                                       | 162 kg<br>3.2 kg<br>158.5 kg<br>0.12 kg                                                                                                                                                                                                                                                                                                                                                               |
| <b>ambient conditions</b>                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                       |
| ambient temperature                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>                                                                                                                                               | -20 ... +70 °C; with natural convection<br>-40 ... +85 °C<br>-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                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>                                                                                                                                                      | L, N, PE: Removable screw terminal, each for 1 x 0.5 ... 2.5 mm²<br>+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²<br>-                                                                                                                                                                                                                                            |
| <b>mechanical data</b>                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |
| width × height × depth of the enclosure                                                                                                                                                                                                                                  | 30 × 80 × 100 mm                                                                                                                                                                                                                                                                                                                                                                                      |
| installation width × mounting height                                                                                                                                                                                                                                     | 30 mm × 180 mm                                                                                                                                                                                                                                                                                                                                                                                        |
| required spacing                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>                                                                                                                                                               | 50 mm<br>50 mm<br>0 mm<br>0 mm                                                                                                                                                                                                                                                                                                                                                                        |
| fastening method                                                                                                                                                                                                                                                         | Snaps onto DIN rail EN 60715 35x7.5/15                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>• DIN-rail mounting</li> <li>• S7 rail mounting</li> <li>• wall mounting</li> </ul>                                                                                                                                               | Yes<br>No<br>No                                                                                                                                                                                                                                                                                                                                                                                       |
| housing can be lined up                                                                                                                                                                                                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                   |
| net weight                                                                                                                                                                                                                                                               | 0.12 kg                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>accessories</b>                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                       |
| electrical accessories                                                                                                                                                                                                                                                   | Removable spring-type terminal 6EP1971-5BA00                                                                                                                                                                                                                                                                                                                                                          |
| <b>further information internet links</b>                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                       |
| internet link                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• to website: Industry Mall</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to web page: power supplies</li> <li>• to website: CAX-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul> | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a><br><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a><br><a href="https://siemens.com/sitop">https://siemens.com/sitop</a><br><a href="https://siemens.com/cax">https://siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |
| <b>additional information</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                       |
| other information                                                                                                                                                                                                                                                        | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)                                                                                                                                                                                                                                                                                                     |
| <b>security information</b>                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 | 16      | 27-04-07-01    |
| 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

|                                                            |                          |
|------------------------------------------------------------|--------------------------|
| Environmental Product Declaration                          |                          |
| • global warming potential [CO2 eq] / during manufacturing | 3.2 kg                   |
| • global warming potential [CO2 eq] / during operation     | 158.5 kg                 |
| • global warming potential [CO2 eq] / after end of life    | 0.12 kg                  |
| • global warming potential [CO2 eq] / total                | 162 kg                   |
| Environment                                                | General Product Approval |



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



|                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| General Product Approval                                                            | Maritime application                                                                  |
|  | <a href="#">China RoHS</a>                                                            |
|  |    |
|                                                                                     |  |

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