



SITOP PSU8200/1ACDC/24VDC/20A

SITOP PSU8200 20 A stabilized power supply input: 120-230 V AC 110-220 V DC  
output: 24 V DC/20 A

| General information                                                                        |                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Technical Product Detail Page                                                              | <a href="https://i.siemens.com/1P6EP1336-3BA10">https://i.siemens.com/1P6EP1336-3BA10</a>                                                                                                                                                |
| input                                                                                      |                                                                                                                                                                                                                                          |
| type of the power supply network                                                           | 1-phase and 2-phase AC or DC                                                                                                                                                                                                             |
| supply voltage at AC                                                                       |                                                                                                                                                                                                                                          |
| • minimum rated value                                                                      | 120 V                                                                                                                                                                                                                                    |
| • maximum rated value                                                                      | 230 V                                                                                                                                                                                                                                    |
| • initial value                                                                            | 85 V                                                                                                                                                                                                                                     |
| • full-scale value                                                                         | 275 V                                                                                                                                                                                                                                    |
| supply voltage at AC                                                                       | temperature derating necessary at $U_{in} < 100$ V AC or DC at 50 °C; additional derating at $U_{in} < 100$ V: $U_{in}=95$ V Pa max=460 W, $U_{in}=90$ V Pa max=440 W, $U_{in}=85$ V Pa max=420 W                                        |
| supply voltage at DC                                                                       | 110 ... 220 V                                                                                                                                                                                                                            |
| input voltage at DC                                                                        | 88 ... 350 V                                                                                                                                                                                                                             |
| wide range input                                                                           | Yes                                                                                                                                                                                                                                      |
| 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 $V_{in} = 230$ V                                                                                                                                                                                                                      |
| line frequency                                                                             | 50/60 Hz                                                                                                                                                                                                                                 |
| line frequency                                                                             | 47 ... 63 Hz                                                                                                                                                                                                                             |
| input current                                                                              |                                                                                                                                                                                                                                          |
| • at rated input voltage 120 V                                                             | 4.6 A                                                                                                                                                                                                                                    |
| • at rated input voltage 230 V                                                             | 2.5 A                                                                                                                                                                                                                                    |
| current limitation of inrush current at 25 °C maximum                                      | 20 A                                                                                                                                                                                                                                     |
| I <sup>2</sup> t value maximum                                                             | 5 A <sup>2</sup> ·s                                                                                                                                                                                                                      |
| fuse protection type                                                                       | Yes                                                                                                                                                                                                                                      |
| fuse protection type in the feeder                                                         | Recommended miniature circuit breaker at 1-phase operation: 10 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2711-1HD10 (UL 489) at 120 V or 3RV2711-1ED10 (UL 489) at 230 V |
| 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                                                                  | 24 ... 28 V                                                                                                                                                                                                                              |
| relative overall tolerance of the voltage                                                  | 3 %                                                                                                                                                                                                                                      |
| relative control precision of the output voltage                                           |                                                                                                                                                                                                                                          |
| • on slow fluctuation of input voltage                                                     | 0.1 %                                                                                                                                                                                                                                    |

|                                                                                                                         |                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>on slow fluctuation of ohm loading</li> </ul>                                    | 0.3 %                                                                              |
| residual ripple                                                                                                         |                                                                                    |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                               | 100 mV                                                                             |
| <ul style="list-style-type: none"> <li>typical</li> </ul>                                                               | 80 mV                                                                              |
| voltage peak                                                                                                            |                                                                                    |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                               | 200 mV                                                                             |
| <ul style="list-style-type: none"> <li>typical</li> </ul>                                                               | 100 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                                                                        | No overshoot of Vout (soft start)                                                  |
| response delay maximum                                                                                                  | 1.5 s                                                                              |
| voltage increase time of the output voltage                                                                             |                                                                                    |
| <ul style="list-style-type: none"> <li>typical</li> </ul>                                                               | 250 ms                                                                             |
| output current                                                                                                          |                                                                                    |
| <ul style="list-style-type: none"> <li>rated value</li> </ul>                                                           | 20 A                                                                               |
| <ul style="list-style-type: none"> <li>rated range</li> </ul>                                                           | 0 ... 20 A; +60 ... +70 °C: Derating 3%/K                                          |
| supplied active power typical                                                                                           | 480 W                                                                              |
| short-term overload current                                                                                             |                                                                                    |
| <ul style="list-style-type: none"> <li>at short-circuit during operation typical</li> </ul>                             | 60 A                                                                               |
| duration of overloading capability for excess current                                                                   |                                                                                    |
| <ul style="list-style-type: none"> <li>at short-circuit during operation</li> </ul>                                     | 25 ms                                                                              |
| constant overload current                                                                                               |                                                                                    |
| <ul style="list-style-type: none"> <li>on short-circuiting during the start-up typical</li> </ul>                       | 30 A                                                                               |
| bridging of equipment                                                                                                   | Yes; switchable characteristic                                                     |
| number of parallel-switched equipment resources for increasing the power                                                | 2                                                                                  |
| <b>efficiency</b>                                                                                                       |                                                                                    |
| efficiency in percent                                                                                                   | 94 %                                                                               |
| power loss [W]                                                                                                          |                                                                                    |
| <ul style="list-style-type: none"> <li>at rated output voltage for rated value of the output current typical</li> </ul> | 31 W                                                                               |
| <b>closed-loop control</b>                                                                                              |                                                                                    |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical         | 0.5 %                                                                              |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical                        | 1 %                                                                                |
| setting time                                                                                                            |                                                                                    |
| <ul style="list-style-type: none"> <li>load step 50 to 100% typical</li> </ul>                                          | 1 ms                                                                               |
| <ul style="list-style-type: none"> <li>load step 100 to 50% typical</li> </ul>                                          | 1 ms                                                                               |
| setting time                                                                                                            |                                                                                    |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                               | 5 ms                                                                               |
| <b>protection and monitoring</b>                                                                                        |                                                                                    |
| design of the overvoltage protection                                                                                    | < 31.8 V                                                                           |
| property of the output short-circuit proof                                                                              | Yes                                                                                |
| design of short-circuit protection                                                                                      | Alternatively, constant current characteristic approx. 21.5 A or latching shutdown |
| <ul style="list-style-type: none"> <li>typical</li> </ul>                                                               | 21.5 A                                                                             |
| overcurrent overload capability                                                                                         |                                                                                    |
| <ul style="list-style-type: none"> <li>in normal operation</li> </ul>                                                   | overload capability 150 % Iout rated up to 5 s/min                                 |
| enduring short circuit current RMS value                                                                                |                                                                                    |
| <ul style="list-style-type: none"> <li>typical</li> </ul>                                                               | 21.5 A                                                                             |
| display version for overload and short circuit                                                                          | LED yellow for "overload", LED red for "latching shutdown"                         |
| <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                                                                                                         |                                                                                    |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                               | 3.5 mA                                                                             |
| <ul style="list-style-type: none"> <li>typical</li> </ul>                                                               | 1 mA                                                                               |
| protection class IP                                                                                                     | IP20                                                                               |

|                                                                               |                                                                                                       |
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| <b>EMC</b>                                                                    |                                                                                                       |
| standard                                                                      |                                                                                                       |
| • for emitted interference                                                    | EN 55022 Class B                                                                                      |
| • for mains harmonics limitation                                              | EN 61000-3-2                                                                                          |
| • 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                                         |
| • UKCA marking                                                                | Yes                                                                                                   |
| • EAC approval                                                                | Yes                                                                                                   |
| • Regulatory Compliance Mark (RCM)                                            | Yes                                                                                                   |
| • NEC Class 2                                                                 | No                                                                                                    |
| • SEMI F47                                                                    | Yes                                                                                                   |
| type of certification                                                         |                                                                                                       |
| • BIS                                                                         | Yes; R-41183539                                                                                       |
| • CB-certificate                                                              | Yes                                                                                                   |
| MTBF at 40 °C                                                                 | 583 500 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)                               | Yes                                                                                                   |
| • French marine classification society (BV)                                   | No                                                                                                    |
| • 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 [CO <sub>2</sub> eq]                                 |                                                                                                       |
| • total                                                                       | 814.2 kg                                                                                              |
| • during manufacturing                                                        | 28.7 kg                                                                                               |
| • during operation                                                            | 785 kg                                                                                                |
| • after end of life                                                           | 0.24 kg                                                                                               |
| <b>ambient conditions</b>                                                     |                                                                                                       |
| ambient temperature                                                           |                                                                                                       |
| • during operation                                                            | -25 ... +70 °C; With natural convection; startup tested starting from -40 °C nominal voltage          |
| • 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 0.2 ... 4 mm <sup>2</sup> single-core/finely stranded             |
| • at output                                                                   | +, -: 2 screw terminals each for 0.2 ... 4 mm <sup>2</sup>                                            |
| • for auxiliary contacts                                                      | 13, 14 (alarm signal), 15, 16 (Remote ON OFF): 1 screw terminal each for 0.14 ... 1.5 mm <sup>2</sup> |
| <b>mechanical data</b>                                                        |                                                                                                       |
| width × height × depth of the enclosure                                       | 90 × 125 × 125 mm                                                                                     |
| installation width × mounting height                                          | 90 mm × 225 mm                                                                                        |
| required spacing                                                              |                                                                                                       |
| • top                                                                         | 50 mm                                                                                                 |
| • bottom                                                                      | 50 mm                                                                                                 |
| • left                                                                        | 0 mm                                                                                                  |
| • right                                                                       | 0 mm                                                                                                  |

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fastening method                                | Snap 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                                      | 1.2 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>accessories</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| electrical accessories                          | Buffer module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| mechanical accessories                          | Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <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                   | <a href="https://siemens.com/sitop">https://siemens.com/sitop</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| • to website: CAX-Download-Manager              | <a href="https://siemens.com/cax">https://siemens.com/cax</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| • to website: Industry Online Support           | <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 <a href="https://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (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    |

|                                                            |          |
|------------------------------------------------------------|----------|
| <b>Approvals Certificates</b>                              |          |
| Environmental Product Declaration                          |          |
| • global warming potential [CO2 eq] / during manufacturing | 28.7 kg  |
| • global warming potential [CO2 eq] / during operation     | 785 kg   |
| • global warming potential [CO2 eq] / after end of life    | 0.24 kg  |
| • global warming potential [CO2 eq] / total                | 814.2 kg |

Environment

General Product Approval



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



General Product Approval

[China RoHS](#)



[BIS CRS](#)

Maritime application

other



[Miscellaneous](#)

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