



Figure similar

SIPLUS PS PSU300S 24 V/5 A

SIPLUS PS PSU300S 5A based on 6EP1433-2BA20 with conformal coating, -40...+70 °C, start up -25 °C, stabilized power supply input: 400-500 V 3 AC output: 24 V DC/5 A

| input                                                                                      |                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type of the power supply network                                                           | 3-phase AC                                                                                                                                                             |
| supply voltage at AC                                                                       |                                                                                                                                                                        |
| • minimum rated value                                                                      | 400 V                                                                                                                                                                  |
| • maximum rated value                                                                      | 500 V                                                                                                                                                                  |
| • initial value                                                                            | 340 V                                                                                                                                                                  |
| • full-scale value                                                                         | 550 V                                                                                                                                                                  |
| wide range input                                                                           | Yes                                                                                                                                                                    |
| buffering time for rated value of the output current in the event of power failure minimum | 18 ms                                                                                                                                                                  |
| operating condition of the mains buffering                                                 | at Vin = 400 V                                                                                                                                                         |
| line frequency                                                                             | 50/60 Hz                                                                                                                                                               |
| line frequency                                                                             | 47 ... 63 Hz                                                                                                                                                           |
| input current                                                                              |                                                                                                                                                                        |
| • at rated input voltage 400 V                                                             | 0.45 A                                                                                                                                                                 |
| • at rated input voltage 500 V                                                             | 0.4 A                                                                                                                                                                  |
| current limitation of inrush current at 25 °C maximum                                      | 20 A                                                                                                                                                                   |
| I2t value maximum                                                                          | 0.5 A²·s                                                                                                                                                               |
| fuse protection type                                                                       | none                                                                                                                                                                   |
| fuse protection type in the feeder                                                         | Required: 3-pole connected miniature circuit breaker 3 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489-listed, DIVQ) |
| 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; max. 120 W                                                                                                                                                |
| relative overall tolerance of the voltage                                                  | 3 %                                                                                                                                                                    |
| relative control precision of the output voltage                                           |                                                                                                                                                                        |
| • on slow fluctuation of input voltage                                                     | 0.1 %                                                                                                                                                                  |
| • on slow fluctuation of ohm loading                                                       | 0.1 %                                                                                                                                                                  |
| residual ripple                                                                            |                                                                                                                                                                        |
| • maximum                                                                                  | 200 mV                                                                                                                                                                 |
| voltage peak                                                                               |                                                                                                                                                                        |
| • maximum                                                                                  | 240 mV                                                                                                                                                                 |
| display version for normal operation                                                       | Green LED for 24 V OK                                                                                                                                                  |
| type of signal at output                                                                   | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"                                                                                                        |
| behavior of the output voltage when switching on                                           | Overshoot of Vout < 5 %                                                                                                                                                |

|                                                                                                                 |                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| response delay maximum                                                                                          | 1.5 s                                                                                                        |
| voltage increase time of the output voltage                                                                     |                                                                                                              |
| • typical                                                                                                       | 60 ms                                                                                                        |
| • maximum                                                                                                       | 500 ms                                                                                                       |
| output current                                                                                                  |                                                                                                              |
| • rated value                                                                                                   | 5 A                                                                                                          |
| • rated range                                                                                                   | 0 ... 5 A; 6 A up to +45°C; +60 ... +70 °C: Derating 5%/K                                                    |
| supplied active power typical                                                                                   | 120 W                                                                                                        |
| bridging of equipment                                                                                           | Yes                                                                                                          |
| number of parallel-switched equipment resources for increasing the power                                        | 2                                                                                                            |
| <b>efficiency</b>                                                                                               |                                                                                                              |
| efficiency in percent                                                                                           | 89.5 %                                                                                                       |
| power loss [W]                                                                                                  |                                                                                                              |
| • at rated output voltage for rated value of the output current typical                                         | 14 W                                                                                                         |
| <b>closed-loop control</b>                                                                                      |                                                                                                              |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 1 %                                                                                                          |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical                | 1 %                                                                                                          |
| setting time                                                                                                    |                                                                                                              |
| • load step 50 to 100% typical                                                                                  | 3 ms                                                                                                         |
| • load step 100 to 50% typical                                                                                  | 3 ms                                                                                                         |
| 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                                                                                   | 4 ms                                                                                                         |
| • maximum                                                                                                       | 10 ms                                                                                                        |
| <b>protection and monitoring</b>                                                                                |                                                                                                              |
| design of the overvoltage protection                                                                            | protection against overvoltage in case of internal fault $V_{out} < 35 \text{ V}$                            |
| property of the output short-circuit proof                                                                      | Yes                                                                                                          |
| design of short-circuit protection                                                                              | Constant current characteristic                                                                              |
| • typical                                                                                                       | 6.6 A                                                                                                        |
| overcurrent overload capability                                                                                 |                                                                                                              |
| • in normal operation                                                                                           | overload capability 150 % $I_{out}$ rated up to 5 s/min                                                      |
| enduring short circuit current RMS value                                                                        |                                                                                                              |
| • maximum                                                                                                       | 8 A                                                                                                          |
| <b>safety</b>                                                                                                   |                                                                                                              |
| galvanic isolation between input and output                                                                     | Yes                                                                                                          |
| galvanic isolation                                                                                              | Safety extra-low output voltage $V_{out}$ acc. to EN 60950-1 and EN 50178, transformer acc. to EN 61558-2-16 |
| operating resource protection class                                                                             | Class I                                                                                                      |
| protection class IP                                                                                             | IP20                                                                                                         |
| <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                                                                                                          |
| • UKCA marking                                                                                                  | Yes                                                                                                          |
| • Regulatory Compliance Mark (RCM)                                                                              | Yes                                                                                                          |
| MTBF at 40 °C                                                                                                   | 500 000 h                                                                                                    |
| <b>ambient conditions</b>                                                                                       |                                                                                                              |
| ambient temperature                                                                                             |                                                                                                              |
| • in horizontal mounting position during operation                                                              | -40; Startup @ -25 °C ... +70 °C; with natural convection                                                    |
| • during transport                                                                                              | -40 ... +85 °C                                                                                               |
| • during storage                                                                                                | -40 ... +85 °C                                                                                               |
| installation altitude at height above sea level maximum                                                         | 6 000 m                                                                                                      |

|                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ambient condition relating to ambient temperature - air pressure - installation altitude                                                                | In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| relative humidity with condensation according to IEC 60068-2-38 maximum                                                                                 | 100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| chemical resistance to commercially available cooling lubricants                                                                                        | Yes; incl. diesel and oil droplets in the air                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| resistance to biologically active substances conformity according to EN 60721-3-3                                                                       | Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| resistance to chemically active substances conformity according to EN 60721-3-3                                                                         | Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| resistance to mechanically active substances conformity according to EN 60721-3-3                                                                       | Yes; Class 3S4 incl. sand, dust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| resistance to biologically active substances conformity according to EN 60721-3-6                                                                       | Yes; Class 6B2 mold, fungal, sponge spores (except fauna)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| resistance to chemically active substances conformity according to EN 60721-3-6                                                                         | Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| resistance to mechanically active substances conformity according to EN 60721-3-6                                                                       | Yes; Class 6S3 incl. sand, dust                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| coating for equipped printed circuit board according to EN 61086                                                                                        | Yes; Class 2 for high availability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| type of coating protection against pollution according to EN 60664-3                                                                                    | Yes; Type 1 protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| type of test of the coating according to MIL-I-46058C                                                                                                   | Yes; Discoloration of the coating during service life possible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| product conformity of the coating Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal Coating, Class A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>connection method</b>                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>       | screw terminal<br>L1, L2, L3, PE: 1 screw terminal each for 0.05 ... 2.5 mm <sup>2</sup> single-core/finely stranded<br>+, -: 2 screw terminals each for 0.2 ... 2.5 mm <sup>2</sup><br>13, 14 (alarm signal): 1 screw terminal each for 0.2 ... 2.5 mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>mechanical data</b>                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| width × height × depth of the enclosure                                                                                                                 | 50 × 125 × 120 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| installation width × mounting height                                                                                                                    | 50 mm × 225 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| fastening method <ul style="list-style-type: none"> <li>• standard rail mounting</li> <li>• S7 rail mounting</li> <li>• wall mounting</li> </ul>        | Snaps onto DIN rail EN 60715 35x7.5/15<br>Yes<br>No<br>No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| housing can be lined up                                                                                                                                 | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| net weight                                                                                                                                              | 0.5 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>accessories</b>                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| electrical accessories                                                                                                                                  | Redundancy module, buffer module, selectivity module, DC UPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| mechanical accessories                                                                                                                                  | Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>further information internet links</b>                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| internet link <ul style="list-style-type: none"> <li>• to website: Industry Mall</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://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="http://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, |

Classifications

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

Approvals Certificates

|                          |     |
|--------------------------|-----|
| General Product Approval | EMV |
|--------------------------|-----|

[Miscellaneous](#)



[Manufacturer Declaration](#)



For use in hazardous locations

