SIEMENS

## Data sheet 6EP1434-2BA20


SITOP PSU300S/3AC/24VDC/10A

SITOP PSU300S 24 V/10 A stabilized power supply input: 400-500 V 3 AC output: 24 V DC/10 A

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| **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 | 7 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 | 0.7 A |
| ● at rated input voltage 500 V | 0.6 A |
| current limitation of inrush current at 25 °C maximum | 20 A |
| I2t value maximum | 0.5 $A^2 \cdot s$ |
| 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. 240 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 | 0.15 % |
| 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 |

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| voltage increase time of the output voltage | |
| ● typical | 50 ms |
| ● maximum | 500 ms |
| output current | |
| ● rated value | 10 A |
| ● rated range | 0 ... 10 A; 12 A up to +45°C; +60 ... +70 °C: Derating 5%/K |
| supplied active power typical | 240 W |
| bridging of equipment | Yes |
| number of parallel-switched equipment resources for increasing the power | 2 |
| **efficiency** | |
| efficiency in percent | 91 % |
| power loss [W] | |
| ● at rated output voltage for rated value of the output current typical | 23 W |
| **closed-loop control** | |
| 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 |
| **protection and monitoring** | |
| design of the overvoltage protection | protection against overvoltage in case of internal fault Vout < 35 V |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Constant current characteristic |
| ● typical | 13 A |
| overcurrent overload capability | |
| ● in normal operation | overload capability 150 % Iout rated up to 5 s/min |
| enduring short circuit current RMS value | |
| ● maximum | 16 A |
| **safety** | |
| galvanic isolation between input and output | Yes |
| galvanic isolation | Safety extra-low output voltage Vout 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 |
| **EMC** | |
| standard | |
| ● for emitted interference | EN 55022 Class B |
| ● for mains harmonics limitation | EN 61000-3-2 |
| ● for interference immunity | EN 61000-6-2 |
| **standards, specifications, approvals** | |
| certificate of suitability | |
| ● CE marking | Yes |
| ● UL approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) |
| ● CSA approval | Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (UL 62368-1, CSA C22.2 No. 62368-1-19) |
| ● UKCA marking | Yes |
| ● EAC approval | Yes |
| ● NEC Class 2 | No |
| type of certification | |
| ● BIS | Yes; R-41183539 |
| ● CB-certificate | Yes |

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| MTBF at 40 °C | 500 000 h |
| **standards, specifications, approvals hazardous environments** | |
| certificate of suitability | |
| ● IECEx | No |
| ● ATEX | No |
| ● ULhazloc approval | No |
| ● cCSAus, Class 1, Division 2 | No |
| ● FM registration | No |
| **standards, specifications, approvals marine classification** | |
| 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 |
| **standards, specifications, approvals Environmental Product Declaration** | |
| Environmental Product Declaration | Yes |
| global warming potential [CO2 eq] | |
| ● total | 738 kg |
| ● during manufacturing | 18.1 kg |
| ● during operation | 719.3 kg |
| ● after end of life | 0.49 kg |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | -25 ... +70; with natural convection |
| ● during transport | -40 ... +85 |
| ● during storage | -40 ... +85 |
| environmental category according to IEC 60721 | Climate class 3K3, 5 ... 95% no condensation |
| **connection method** | |
| type of electrical connection | screw terminal |
| ● at input | L1, L2, L3, PE: 1 screw terminal each for 0.05 ... 2.5 mm² single-core/finely stranded |
| ● at output | +, -: 2 screw terminals each for 0.2 ... 2.5 mm² |
| ● for auxiliary contacts | 13, 14 (alarm signal): 1 screw terminal each for 0.2 ... 2.5 mm² |
| **mechanical data** | |
| width × height × depth of the enclosure | 70 × 125 × 120 mm |
| installation width × mounting height | 70 mm × 225 mm |
| fastening method | Snaps onto DIN rail EN 60715 35x7.5/15 |
| ● DIN-rail mounting | Yes |
| ● S7 rail mounting | No |
| ● wall mounting | No |
| housing can be lined up | Yes |
| net weight | 0.7 kg |
| **accessories** | |
| electrical accessories | Redundancy module, buffer module, selectivity module, DC UPS |
| mechanical accessories | Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20 |
| **further information internet links** | |
| internet link | |
| ● to website: Industry Mall | https://mall.industry.siemens.com |
| ● to web page: selection aid TIA Selection Tool | https://www.siemens.com/tstcloud |
| ● to web page: power supplies | https://siemens.com/sitop |
| ● to website: CAx-Download-Manager | https://siemens.com/cax |
| ● to website: Industry Online Support | https://support.industry.siemens.com |
| **additional information** | |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |
| **security information** | |
| security information | Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and |

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## 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

Manufacturer Declaration

Declaration of Conformity

### General Product Approval

BIS CRS

### Marine / Shipping

### Environment

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