SIEMENS

## Data sheet 6AG1434-2BA20-7AA0




SIPLUS PS PSU300S 24 V/10 A

SIPLUS PS PSU300S 10A based on 6EP1434-2BA20 with conformal coating, -40…+70 °C, start up -25 °C, stabilized power supply input: 400-500 V 3 AC output: 24 V DC/ 10 A

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| **General information** | |
| Technical Product Detail Page | https://i.siemens.com/1P6AG1434-2BA20-7AA0 |
| product brand name | SIPLUS |
| product type designation | PSU300S |
| product designation | Power supply SITOP smart |
| type of current supply | 24 V/10 A |
| manufacturer's article number of the basic version used for SIPLUS product versions | 6EP1434-2BA20 |
| **input** | |
| type of the power supply network | 3-phase AC |
| phase number | 3 |
| voltage curve at input | AC |
| supply voltage at AC | |
| ● minimum rated value | 400 V |
| ● maximum rated value | 500 V |
| ● initial value | 340 V |
| ● full-scale value | 550 V |
| supply voltage | |
| ● at 50 Hz | 400 V |
| ● at 60 Hz | 500 V |
| line frequency | 50/60 Hz |
| line frequency | 47 ... 63 Hz |
| 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 |
| 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 |
| product function output voltage controlled | Yes |
| product function output voltage stabilized | Yes |
| output voltage at DC rated value | 24 V |


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| output voltage | |
| ● at output 1 at DC rated value | 24 V |
| output voltage | |
| ● at output 1 at DC | 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 |
| 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 | Output voltage: SELV, ES1 (IEC 62368-1), DVC As (IEC 61204-7) |
| operating resource protection class | Class I |


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| 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 |
| ● UKCA marking | Yes |
| ● Regulatory Compliance Mark (RCM) | Yes |
| MTBF at 40 °C | 500 000 h |
| **ambient conditions** | |
| 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 |
| **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** | |


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| internet link | |
| ● to website: Industry Mall | https://mall.industry.siemens.com |
| ● to website: Industry Online Support | https://support.industry.siemens.com |

## additional information

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

## security information

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

## Classifications

| | Version | Classification |
|---|---|---|
| eClass | 16 | 27-04-07-01 |
| eClass | 14 | 27-04-07-01 |
| eClass | 12 | 27-04-07-01 |
| eClass | 9.1 | 27-04-07-01 |
| eClass | 9 | 27-04-07-01 |
| eClass | 8 | 27-04-90-02 |
| eClass | 7.1 | 27-04-90-02 |
| eClass | 6 | 27-04-90-02 |
| ETIM | 10 | EC002540 |
| ETIM | 9 | EC002540 |
| ETIM | 8 | EC002540 |
| ETIM | 7 | EC002540 |
| IDEA | 4 | 4130 |
| UNSPSC | 15 | 39-12-10-04 |

## Approvals Certificates

### General Product Approval

Manufacturer Declaration

China RoHS

### General Product Approval | EMV | For use in hazardous locations

China RoHS

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