SIEMENS

## Data sheet 6EP3437-8SB00-2AY0


SITOP PSU8600/3AC/24VDC/40A PN

SITOP PSU8600 3AC 40 A PN stabilized power supply input: 400-500 V 3 AC output: 24 V DC/40 A with PN/IE connection web server integrated OPC UA server integrated

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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 | 320 V |
| ● full-scale value | 575 V |
| supply voltage at AC | Derating 320 ... 360 and 530 ... 575 V |
| wide range input | Yes |
| buffering time for rated value of the output current in the event of power failure minimum | 15 ms |
| operating condition of the mains buffering | at Vin = 400 V; Prioritized supply of the output in case of power failure selectable via DIP switch (only in conjunction with CNX8600 expansion module) |
| line frequency | 50/60 Hz |
| line frequency | 47 ... 63 Hz |
| input current | |
| ● at rated input voltage 400 V | 2.75 A |
| ● at rated input voltage 500 V | 2.2 A |
| current limitation of inrush current at 25 °C maximum | 14 A |
| I2t value maximum | 2.24 A²·s |
| fuse protection type | none |
| fuse protection type in the feeder | Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489) |
| **output** | |
| voltage curve at output | Controlled, isolated DC voltage |
| number of outputs | 1 |
| 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 or IE/PN interface |
| adjustable output voltage | 4 ... 28 V; Derating > 24 V: 4%/V; max. 960 W overall system |
| relative overall tolerance of the voltage | 3 % |
| relative control precision of the output voltage | |
| ● on slow fluctuation of input voltage | 0.2 % |
| ● on slow fluctuation of ohm loading | 0.1 % |
| residual ripple | |
| ● maximum | 100 mV |
| voltage peak | |
| ● maximum | 200 mV |
| display version for normal operation | 3-color LED for operating state device; LED for operating mode manual/remote; |

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| | 4 LEDs for communication PROFINET; 3-color LED for operating state output |
| type of signal at output | Relay contact (changeover contact, contact current capacity DC 60 V/0.3 A) for "Operating state OK" |
| behavior of the output voltage when switching on | No overshoot of Vout (soft start) |
| response delay maximum | 1 s |
| type of outputs connection | Simultaneous connecting-in of all outputs after device booting or delay time of 25 ms, 100 ms or "load-optimized" for sequential cutting-in of the outputs via DIP switches can be set (only with expansion module CNX8600) |
| voltage increase time of the output voltage | |
| ● maximum | 500 ms |
| output current | |
| ● rated value | 40 A |
| ● per output | 40 A |
| ● at output 1 rated value | 40 A |
| ● rated range | 0 ... 40 A; +50 ... +60 °C: Derating 2.5%/K; no derating in connection with expansion module CNX8600 and total load of the outputs at the basic device max. 480 W |
| supplied active power typical | 960 W |
| short-term overload current | |
| ● at short-circuit during operation typical | 120 A; only in operation without CNX8600 extension module |
| duration of overloading capability for excess current | |
| ● at short-circuit during operation | 25 ms |
| bridging of equipment | Yes; suitable output characteristics via DIP switch can be selected |
| number of parallel-switched equipment resources for increasing the power | 2 |
| **efficiency** | |
| efficiency in percent | 93 % |
| power loss [W] | |
| ● at rated output voltage for rated value of the output current typical | 72 W |
| ● during no-load operation maximum | 20 W |
| **closed-loop control** | |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.1 % |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical | 0.4 % |
| setting time | |
| ● maximum | 10 ms |
| **protection and monitoring** | |
| design of the overvoltage protection | max. 35 V (max. 500 ms) |
| property of the output short-circuit proof | Yes |
| design of short-circuit protection | Electronic overload shutdown; optional constant-current operation can be selected via DIP switch |
| adjustable current response value current of the current-dependent overload release | 4 ... 40 A |
| type of response value setting | via potentiometer or IE/PN interface |
| switching characteristic | |
| ● of the excess current | Ia >1.0…<1.5 x Ia threshold permissible for 5 s; Ia limit (= 1.5 x Ia threshold) permissible for 200 ms |
| ● of the current limitation | Ia limit (= 1.5 x Ia threshold) permissible for 5 s, afterwards Ia threshold continuous |
| overcurrent overload capability | |
| ● in normal operation | Total system overloadable 150% Ia rated to 5 s/min |
| display version for overload and short circuit | 3-color LED for operating state device; 3-color LED for operating state output |
| design of the reset device/resetting mechanism | via sensor or IE/PN interface |
| remote reset function | Non-electrically isolated 24 V input (signal level "high" at > 15 V) |
| **interfaces** | |
| product function communication function | Yes |
| design of the interface | Ethernet/PROFINET |
| ● design of the interface PROFINET protocol | Yes |
| protocol is supported | |
| ● OPC UA | Yes |
| **safety** | |
| galvanic isolation between input and output | Yes |

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| galvanic isolation | Safety extra low output voltage Vout according to EN 61204-7 |
| operating resource protection class | Class I |
| leakage current | |
| ● maximum | 3.5 mA |
| 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 |
| ● CSA approval | Yes; cCSAus (CSA C22.2 No. 62368-1, UL 62368-1) |
| ● EAC approval | Yes |
| ● NEC Class 2 | No |
| ● SEMI F47 | Yes |
| type of certification | |
| ● BIS | Yes; R-41188271 |
| ● CB-certificate | Yes |
| MTBF at 40 °C | 235 118 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 | 2 295.1 kg |
| ● during manufacturing | 41 kg |
| ● during operation | 2 252.9 kg |
| ● after end of life | 0.59 kg |
| **ambient conditions** | |
| ambient temperature | |
| ● during operation | -25 ... +60; 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 | Plug-in terminals with screwed connection |
| ● at input | L1, L2, L3, PE: Plug-in terminal with 1 screwed connection each for 0.2 ... 4 mm² single-wire / fine stranded |
| ● at output | Output: plug-in terminals with 2 screw connectors for 0.5 ... 10 mm²; 0 V: screw terminal with 3 screw connectors for 0.5 ... 10 mm² (max. 6 mm² with ferrule) |
| ● for auxiliary contacts | RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm² |
| ● for signaling contact | 11, 12, 14 (alarm signal): Plug-in terminal (together with Reset) with 1 screwed connection each for 0.2 ... 1.5 mm² |
| removable terminal at input | Yes |
| removable terminal at output | Yes |

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| design of the interface for communication | PROFINET/Ethernet: two RJ45 sockets (2-port switch) |
| suitability for interaction modular system | Yes |
| **mechanical data** | |
| width × height × depth of the enclosure | 125 × 125 × 150 mm |
| installation width × mounting height | 125 mm × 225 mm |
| required spacing | |
| ● top | 50 mm |
| ● bottom | 50 mm |
| ● left | 0 mm |
| ● right | 0 mm |
| fastening method | Snaps onto DIN rail EN 60715 35x15 |
| ● DIN-rail mounting | Yes |
| ● S7 rail mounting | No |
| ● wall mounting | No |
| housing can be lined up | Yes |
| net weight | 2.6 kg |
| **accessories** | |
| electrical accessories | Expansion modules CNX8600, buffer modules BUF8600, module UPS8600 |
| mechanical accessories | Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20 |
| **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 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 | 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 |

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|---|---|---|---|
| | UNSPSC | 15 | 39-12-10-04 |

## Approvals Certificates

### General Product Approval

CB

CSA

Manufacturer Declaration

Declaration of Conformity

UKCA

CE EG-Konf.

| General Product Approval | | Marine / Shipping | | Environment | Industrial Communication |
|---|---|---|---|---|---|
| UL | BIS CRS | ABS | DNV | EPD | PROFINET |

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