



SITOP PSU8600/3AC/24VDC/20A PN

SITOP PSU8600 3AC 20 A PN stabilized power supply input: 400-500 V 3 AC  
output: 24 V DC/20 A with PN/IE connection web server integrated OPC UA server integrated

Technical Product Detail Page

<https://i.siemens.com/1P6EP3436-8SB00-2AY0>

input	
type of the power supply network	3-phase AC
supply voltage at AC	
<ul style="list-style-type: none"> <li>• minimum rated value</li> <li>• maximum rated value</li> <li>• initial value</li> <li>• full-scale value</li> </ul>	400 V 500 V 320 V 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 $V_{in} = 400$ 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	
<ul style="list-style-type: none"> <li>• at rated input voltage 400 V</li> <li>• at rated input voltage 500 V</li> </ul>	1.4 A 1.1 A
current limitation of inrush current at 25 °C maximum	14 A
I <sup>2</sup> t value maximum	1.2 A <sup>2</sup> ·s
fuse protection type	none
fuse protection type in the feeder	Required: 3-pole connected miniature circuit breaker 6 ... 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	
<ul style="list-style-type: none"> <li>• at output 1 at DC rated value</li> </ul>	24 V
output voltage adjustable	Yes; via potentiometer or IE/PN interface
adjustable output voltage	4 ... 28 V; Derating > 24 V: 4%/V; max. 480 W overall system
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> <li>• on slow fluctuation of input voltage</li> <li>• on slow fluctuation of ohm loading</li> </ul>	0.2 % 0.1 %
residual ripple	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	100 mV
voltage peak	

<ul style="list-style-type: none"> <li>• maximum</li> </ul>	200 mV
display version for normal operation	3-color LED for operating state device; LED for operating mode manual/remote; 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 <ul style="list-style-type: none"> <li>• maximum</li> </ul>	500 ms
output current <ul style="list-style-type: none"> <li>• rated value</li> <li>• per output</li> <li>• at output 1 rated value</li> <li>• rated range</li> </ul>	20 A 20 A 20 A 0 ... 20 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. 240 W
supplied active power typical	480 W
short-term overload current <ul style="list-style-type: none"> <li>• at short-circuit during operation typical</li> </ul>	60 A; only in operation without CNX8600 extension module
duration of overloading capability for excess current <ul style="list-style-type: none"> <li>• at short-circuit during operation</li> </ul>	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
<b>efficiency</b>	
efficiency in percent	93 %
power loss [W] <ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> <li>• during no-load operation maximum</li> </ul>	34 W 12 W
<b>closed-loop control</b>	
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 <ul style="list-style-type: none"> <li>• maximum</li> </ul>	10 ms
<b>protection and monitoring</b>	
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	2 ... 20 A
type of response value setting	via potentiometer or IE/PN interface
switching characteristic <ul style="list-style-type: none"> <li>• of the excess current</li> <li>• of the current limitation</li> </ul>	Ia > 1.0 ... < 1.5 x Ia threshold permissible for 5 s; Ia limit (= 1.5 x Ia threshold) permissible for 200 ms Ia limit (= 1.5 x Ia threshold) permissible for 5 s, afterwards Ia threshold continuous
overcurrent overload capability <ul style="list-style-type: none"> <li>• in normal operation</li> </ul>	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)
<b>interfaces</b>	
product function communication function	Yes
design of the interface <ul style="list-style-type: none"> <li>• design of the interface PROFINET protocol</li> </ul>	Ethernet/PROFINET Yes

protocol is supported	
<ul style="list-style-type: none"> <li>• OPC UA</li> </ul>	Yes
<b>safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage $V_{out}$ according to EN 61204-7
operating resource protection class	Class I
leakage current	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	3.5 mA
protection class IP	IP20
<b>EMC</b>	
standard	
<ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
<b>standards, specifications, approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• EAC approval</li> <li>• NEC Class 2</li> <li>• SEMI F47</li> </ul>	Yes Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259 Yes No Yes
type of certification	
<ul style="list-style-type: none"> <li>• BIS</li> <li>• CB-certificate</li> </ul>	Yes; R-41188271 Yes
MTBF at 40 °C	298 979 h
<b>standards, specifications, approvals hazardous environments</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> <li>• ATEX</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>	No No No No
<b>standards, specifications, approvals marine classification</b>	
shipbuilding approval	Yes
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	Yes No Yes No
<b>standards, specifications, approvals Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
global warming potential [CO <sub>2</sub> eq]	
<ul style="list-style-type: none"> <li>• total</li> <li>• during manufacturing</li> <li>• during operation</li> <li>• after end of life</li> </ul>	1 093.1 kg 28.4 kg 1 063.9 kg 0.41 kg
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during transport</li> <li>• during storage</li> </ul>	-25 ... +60 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
<b>connection method</b>	
type of electrical connection	Plug-in terminals with screwed connection
<ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>	L1, L2, L3, PE: Plug-in terminal with 1 screwed connection each for 0.2 ... 4 mm <sup>2</sup> single-wire / fine stranded Output: plug-in terminals with 2 screw connectors for 0.2 ... 4 mm <sup>2</sup> ; 0 V: screw terminal with 3 screw connectors for 0.2 ... 4 mm <sup>2</sup> RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm <sup>2</sup>

<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	11, 12, 14 (alarm signal): Plug-in terminal (together with Reset) with 1 screwed connection each for 0.2 ... 1.5 mm <sup>2</sup>
removable terminal at input	Yes
removable terminal at output	Yes
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	80 × 125 × 150 mm
installation width × mounting height	80 mm × 225 mm
required spacing	
<ul style="list-style-type: none"> <li>• top</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>• bottom</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>• left</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>• right</li> </ul>	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x15
<ul style="list-style-type: none"> <li>• DIN-rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7 rail mounting</li> </ul>	No
<ul style="list-style-type: none"> <li>• wall mounting</li> </ul>	No
housing can be lined up	Yes
net weight	1.8 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	
<ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
<ul style="list-style-type: none"> <li>• to web page: power supplies</li> </ul>	<a href="https://siemens.com/sitop">https://siemens.com/sitop</a>
<ul style="list-style-type: none"> <li>• to website: CAx-Download-Manager</li> </ul>	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

#### additional information

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

security information	<p>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, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a>. (V4.7)</p>
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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	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](#)

[Declaration of Conformity](#)



[China RoHS](#)

**General Product Approval**

**Maritime application**

**Environment**



[Miscellaneous](#)

[BIS CRS](#)



**Industrial Communication**

[PROFINET](#)

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