



SITOP PSU8600/1AC/24VDC/20A/4X5A PN

SITOP PSU8600 1AC 20 A/4x5 A PN stabilized power supply input: 100-240 V AC output: 24 V DC/20 A/4x 5 A with PN/IE connection web server integrated OPC UA server integrated \*Ex approval no longer available\*

### Input

type of the power supply network	1-phase and 2-phase AC or DC
supply voltage at AC	
• minimum rated value	100 V
• maximum rated value	240 V
• initial value	85 V
• full-scale value	275 V
supply voltage	
• at DC	110 ... 220 V
input voltage	
• at DC	93 ... 275 V
design of input wide range input	Yes
operating condition of the mains buffering	at $V_{in} = 100$ V; Prioritized supply Output 1 at power failure can be selected via DIP switch
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at $V_{in} = 100$ V; Prioritized supply Output 1 at power failure can be selected via DIP switch
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 100 V	5.4 A
• at rated input voltage 120 V	4.5 A
• at rated input voltage 230 V	2.5 A
• at rated input voltage 240 V	2.4 A
• at rated input voltage 110 V	4.8 A
• at rated input voltage 220 V	2.4 A
current limitation of inrush current at 25 °C maximum	15 A
I <sup>2</sup> t value maximum	4.33 A <sup>2</sup> ·s
fuse protection type	internal
• in the feeder	required: circuit breaker (for UL: UL489-listed/DIVQ) characteristic C, 10-32 A, alternatively slow-response fuses (for UL: UL248-listed)

### Output

voltage curve at output	Controlled, isolated DC voltage
number of outputs	4
output voltage at DC rated value	24 V
output voltage	
• at output 1 at DC rated value	24 V
• at output 2 at DC rated value	24 V
• at output 3 at DC rated value	24 V

<ul style="list-style-type: none"> <li>• at output 4 at DC rated value</li> </ul>	24 V
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
adjustable output voltage	4 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer or IE/PN interface; Derating > 24 V: 4%/V; max. 120 W per output, max. 480 W overall system
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 per output for operating state output; LED green for parallel operation Output 1 and 2 / 3 and 4
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; Without on-delay of the outputs
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
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>• at output 2 rated value</li> <li>• at output 3 rated value</li> <li>• at output 4 rated value</li> <li>• rated range</li> </ul>	20 A 5 A 5 A 5 A 5 A 5 A 0 ... 20 A
supplied active power typical	480 W
product feature	
<ul style="list-style-type: none"> <li>• parallel switching of outputs</li> <li>• bridging of equipment</li> </ul>	Yes; Parallel circuit Output 1 with 2 or Output 3 with 4 can be selected via DIP switch No

### Efficiency

efficiency in percent	92 %
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>	39 W 14 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	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	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 cut-off; optionally constant current operation can be selected for Output 4 via DIP switches
adjustable current response value current of the current-dependent overload release	0.5 ... 5 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>	<ul style="list-style-type: none"> <li>• <math>I_a &gt; 1.0 \dots &lt; 1.5 \times I_a</math> threshold permissible for 5 s; <math>I_a</math> limit (= <math>1.5 \times I_a</math> threshold) permissible for 200 ms</li> <li>• <math>I_a</math> limit (= <math>1.5 \times I_a</math> threshold) permissible for 5 s, afterwards <math>I_a</math> threshold continuous</li> </ul>
design of the reset device/resetting mechanism	via sensor per output or IE/PN interface

remote reset function	Non-electrically isolated 24 V input (signal level "high" at > 15 V)
overcurrent overload capability in normal operation	Total system overloadable 150% I <sub>a</sub> rated to 5 s/min
display version for overload and short circuit	3-color LED for operating state device; 3-color LED per output for operating state output

### Interface

design of the interface	Ethernet/PROFINET
<ul style="list-style-type: none"> <li>PROFINET protocol</li> </ul>	Yes
protocol is supported OPC UA	Yes

### Safety

galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178
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

### Approvals

certificate of suitability	Yes
<ul style="list-style-type: none"> <li>CE marking</li> <li>UL approval</li> </ul>	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
<ul style="list-style-type: none"> <li>CSA approval</li> </ul>	No; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
<ul style="list-style-type: none"> <li>cCSAus, Class 1, Division 2</li> <li>ATEX</li> </ul>	No No
certificate of suitability	
<ul style="list-style-type: none"> <li>IECEX</li> <li>NEC Class 2</li> <li>ULhazloc approval</li> <li>FM registration</li> </ul>	No No No No
type of certification CB-certificate	Yes
certificate of suitability	
<ul style="list-style-type: none"> <li>EAC approval</li> <li>C-Tick</li> </ul>	Yes No
certificate of suitability shipbuilding approval	No
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>DNV GL</li> <li>Lloyds Register of Shipping (LRS)</li> <li>Nippon Kaiji Kyokai (NK)</li> </ul>	No No No No No

### EMC

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

### environmental conditions

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

### Mechanics

type of electrical connection	Plug-in terminals with screwed connection
<ul style="list-style-type: none"> <li>at input</li> </ul>	L1/+, N/L2/-, PE: Plug-in terminal with 1 screwed connection each for 0.2 ... 4 mm <sup>2</sup> single-wire / fine stranded
<ul style="list-style-type: none"> <li>at output</li> </ul>	1, 2, 3, 4: Two plug-in terminals (1, 2 and 3, 4) with 2 screwed connections each for 0.2 ... 2.5 mm <sup>2</sup> ; 0 V: Plug-in terminal with 3 screwed connections for 0.2 ... 4 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>for auxiliary contacts</li> </ul>	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>
product function	
<ul style="list-style-type: none"> <li>removable terminal at input</li> </ul>	Yes

• removable terminal at output  
design of the interface for communication  
suitability for interaction modular system  
width of the enclosure  
height of the enclosure  
depth of the enclosure  
required spacing

- top
- bottom
- left
- right

net weight  
product feature of the enclosure housing can be lined up  
fastening method  
electrical accessories

mechanical accessories  
MTBF at 40 °C  
other information

Yes  
PROFINET/Ethernet: two RJ45 sockets (2-port switch)  
Yes  
125 mm  
125 mm  
150 mm

50 mm  
50 mm  
0 mm  
0 mm  
2.6 kg

Yes  
Snaps onto DIN rail EN 60715 35x15  
Expansion modules CNX8600, buffer modules BUF8600, module  
UPS8600  
Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20  
186 700 h  
Specifications at rated input voltage and ambient temperature +25 °C  
(unless otherwise specified)

