

SITOP PSU8600/1AC/24VDC/20A/4x5A PN  
 SITOP PSU8600 1AC 20A/4x5A 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



Input	
Input	1-phase and 2-phase AC or DC
Rated voltage value $V_{in}$ rated	100 ... 240 V
Voltage range AC supply voltage	85 ... 275 V
<ul style="list-style-type: none"> <li>at DC</li> </ul>	110 ... 220 V
input voltage	
<ul style="list-style-type: none"> <li>at DC</li> </ul>	93 ... 275 V
Wide-range input	Yes
Mains buffering	at $V_{in} = 100$ V; Prioritized supply Output 1 at power failure can be selected via DIP switch
Mains buffering at $I_{out}$ rated, min.	20 ms; at $V_{in} = 100$ V; Prioritized supply Output 1 at power failure can be selected via DIP switch
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
input current	
<ul style="list-style-type: none"> <li>at rated input voltage 100 V</li> </ul>	5.4 A
<ul style="list-style-type: none"> <li>at rated input voltage 120 V</li> </ul>	4.5 A

<ul style="list-style-type: none"> <li>• at rated input voltage 230 V</li> <li>• at rated input voltage 240 V</li> <li>• at rated input voltage 110 V</li> <li>• at rated input voltage 220 V</li> </ul>	2.5 A
	2.4 A
	4.8 A
	2.4 A
Switch-on current limiting (+25 °C), max.	15 A
I <sup>2</sup> t, max.	4.33 A <sup>2</sup> ·s
Built-in incoming fuse	internal
Protection in the mains power input (IEC 898)	required: circuit breaker (for UL: UL489-listed/DIVQ) characteristic C, 10-32 A, alternatively slow-response fuses (for UL: UL248-listed)

Output	
Output	Controlled, isolated DC voltage
number of outputs	4
Rated voltage V <sub>out</sub> DC	24 V
<ul style="list-style-type: none"> <li>• output voltage at output 1 at DC rated value</li> <li>• output voltage at output 2 at DC rated value</li> <li>• output voltage at output 3 at DC rated value</li> <li>• output voltage at output 4 at DC rated value</li> </ul>	24 V
	24 V
	24 V
	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.2 %
Static load balancing, approx.	0.1 %
Residual ripple peak-peak, max.	100 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV
Adjustment range	4 ... 28 V
product function output voltage adjustable	Yes
Output voltage setting	via potentiometer or IE/PN interface; Derating > 24 V: 4%/V; max. 120 W per output, max. 480 W overall system
Status display	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
Signaling	Relay contact (changeover contact, contact current capacity DC 60 V/0.3 A) for "Operating state OK"
On/off behavior	No overshoot of V <sub>out</sub> (soft start)
Startup delay, max.	1 s; Without on-delay of the outputs
connection of outputs operating	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 maximum	500 ms
Rated current value I <sub>out</sub> rated	20 A
output current	
<ul style="list-style-type: none"> <li>• per output</li> </ul>	5 A
<ul style="list-style-type: none"> <li>• at output 1 rated value</li> </ul>	5 A
<ul style="list-style-type: none"> <li>• at output 2 rated value</li> </ul>	5 A

• at output 3 rated value	5 A
• at output 4 rated value	5 A
Current range	0 ... 20 A
supplied active power typical	480 W
product feature parallel switching of outputs	Yes; Parallel circuit Output 1 with 2 or Output 3 with 4 can be selected via DIP switch
Parallel switching for enhanced performance	No

### Efficiency

Efficiency at $V_{out}$ rated, $I_{out}$ rated, approx.	92 %
Power loss at $V_{out}$ rated, $I_{out}$ rated, approx.	39 W
power loss [W] during no-load operation maximum	14 W

### Closed-loop control

Dynamic mains compensation ( $V_{in}$ rated $\pm 15$ %), max.	0.1 %
Dynamic load smoothing ( $I_{out}$ : 50/100/50 %), $U_{out} \pm$ typ.	0.4 %
setting time maximum	10 ms

### Protection and monitoring

Output overvoltage protection	< 35 V
property of the output short-circuit proof	Yes
Short-circuit protection	electronic overload cut-off; optionally constant current operation can be selected for Output 4 via DIP switches
adjustable response value current of current-dependent overload trip	0.5 ... 5 A
type of threshold value setting	via potentiometer or IE/PN interface
characteristics of electronic overload switch-off	$I_a > 1.0 \dots < 1.5 \times I_a$ threshold permissible for 5 s; $I_a$ limit (= $1.5 \times I_a$ threshold) permissible for 200 ms
characteristics of constant current operation	$I_a$ limit (= $1.5 \times I_a$ threshold) permissible for 5 s, afterwards $I_a$ threshold continuous
Reset	via sensor per output or IE/PN interface
Remote reset	Non-electrically isolated 24 V input (signal level "high" at > 15 V)
overcurrent overload capability in normal operation	Total system overloadable 150% $I_a$ rated to 5 s/min
Overload/short-circuit indicator	3-color LED for operating state device; 3-color LED per output for operating state output

### Interface

Specification interface	Ethernet/PROFINET
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### Safety

Primary/secondary isolation	Yes
galvanic isolation	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178
Protection class	Class I
leakage current	

• maximum	3.5 mA
Degree of protection (EN 60529)	IP20

### Approvals

CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes

### EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2

### environmental conditions

ambient temperature	
• during operation	-25 ... +60 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% no condensation

### Mechanics

Connection technology	Plug-in terminals with screwed connection
Connections	
• Supply input	L1/+, N/L2/-, PE: Plug-in terminal with 1 screwed connection each for 0.2 ... 4 mm <sup>2</sup> single-wire / fine stranded
• Output	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>
• Auxiliary	RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm <sup>2</sup>
• signaling contact	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	
• 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
width of the enclosure	125 mm
height of the enclosure	125 mm
depth of the enclosure	150 mm
required spacing	
• top	50 mm

<ul style="list-style-type: none"> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	50 mm
	0 mm
	0 mm
Weight, approx.	2.6 kg
product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Expansion modules CNX8600, buffer modules BUF8600, module UPS8600
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	186 700 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)