

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	85 ... 275 V
supply voltage	
• at DC	110 ... 220 V
input voltage	
• at DC	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	
• 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
Switch-on current limiting (+25 °C), max.	15 A
I^2t , max.	4.33 A ² ·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_{out} DC	24 V

<ul style="list-style-type: none"> • output voltage at output 1 at DC rated value • output voltage at output 2 at DC rated value • output voltage at output 3 at DC rated value • output voltage at output 4 at DC rated value 	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 Vout (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 Iout rated	20 A
output current <ul style="list-style-type: none"> • per output • at output 1 rated value • at output 2 rated value • at output 3 rated value • at output 4 rated value 	5 A 5 A 5 A 5 A 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 Vout rated, Iout rated, approx.	92 %
Power loss at Vout rated, Iout rated, approx.	39 W
power loss [W] during no-load operation maximum	14 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	0.4 %
setting time maximum	10 ms
Protection and monitoring	
Output overvoltage protection	max. 35 V (max. 500 ms)
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	Ia > 1.0 ... < 1.5 x Ia threshold permissible for 5 s; Ia limit (= 1.5 x Ia threshold) permissible for 200 ms
characteristics of constant current operation	Ia limit (= 1.5 x Ia threshold) permissible for 5 s, afterwards Ia 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% Ia 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
design of the interface PROFINET protocol	Yes
protocol is supported OPC UA	Yes
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)
Explosion protection	IECEx Ex nA nC IIC T3 Gc; ATEX (EX) II 3G Ex nA nC IIC T3 Gc
certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
certificate of suitability EAC 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 ² 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 ² ; 0 V: Plug-in terminal with 3 screwed connections for 0.2 ... 4 mm ²
• Auxiliary	RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm ²
• signaling contact	11, 12, 14 (alarm signal): Plug-in terminal (together with Reset) with 1 screwed connection each for 0.2 ... 1.5 mm ²
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
• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	2.6 kg
product feature of the enclosure housing can be lined up	Yes

Installation	Snap 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)

