



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

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

Input	
Input	3-phase AC
Rated voltage value V_{in} rated	400 ... 500 V
Voltage range AC	320 ... 575 V
<ul style="list-style-type: none"> Note 	Derating 320 ... 360 and 530 ... 575 V
Wide-range input	Yes
Mains buffering	at $V_{in} = 400$ V; Prioritized supply to the output on power failure via DIP switch can be selected (only with expansion module CNX8600)
Mains buffering at I_{out} rated, min.	15 ms; at $V_{in} = 400$ V; Prioritized supply to the output on power failure via DIP switch can be selected (only with expansion module CNX8600)
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"> at rated input voltage 400 V at rated input voltage 500 V 	1.4 A 1.1 A
Switch-on current limiting (+25 °C), max.	14 A
I^2t , max.	1.2 A ² ·s
Built-in incoming fuse	none
Protection in the mains power input (IEC 898)	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	
Output	Controlled, isolated DC voltage
number of outputs	1
Rated voltage V_{out} DC	24 V
<ul style="list-style-type: none"> output voltage at output 1 at DC rated value 	24 V
Total tolerance, static \pm	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. 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 for operating state output
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
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 (only with expansion module CNX8600)
voltage increase time of the output voltage maximum	500 ms
Rated current value Iout rated	20 A
output current	
• per output	20 A
• at output 1 rated value	20 A
Current range	0 ... 20 A
• Note	+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	
• at short-circuit during operation typical	60 A
• note	only in operation without CNX8600 extension module
duration of overloading capability for excess current	
• at short-circuit during operation	25 ms
Parallel switching for enhanced performance	Yes; suitable output characteristics via DIP switch can be selected
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	93 %
Power loss at Vout rated, Iout rated, approx.	34 W
power loss [W] during no-load operation maximum	12 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 shutdown; optional constant-current operation can be selected via DIP switch
adjustable response value current of current-dependent overload trip	2 ... 20 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 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 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 <ul style="list-style-type: none"> • 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 T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4
certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
certificate of suitability EAC approval	Yes
Marine approval	ABS, DNV GL
EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
environmental conditions	
ambient temperature <ul style="list-style-type: none"> • during operation <ul style="list-style-type: none"> — Note • during transport • during storage 	-25 ... +60 °C with natural convection -40 ... +85 °C -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 <ul style="list-style-type: none"> • Supply input • Output • Auxiliary • signaling contact 	L1, L2, L3, PE: Plug-in terminal with 1 screwed connection each for 0.2 ... 4 mm ² single-wire / fine stranded Output: plug-in terminals with 2 screw connectors for 0.2 ... 4 mm ² ; 0 V: screw terminal with 3 screw connectors for 0.2 ... 4 mm ² RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm ² 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 <ul style="list-style-type: none"> • removable terminal at input • removable terminal at output 	Yes 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	80 mm
height of the enclosure	125 mm
depth of the enclosure	150 mm
required spacing <ul style="list-style-type: none"> • top • bottom • left • right 	50 mm 50 mm 0 mm 0 mm
Weight, approx.	1.8 kg
product feature of the enclosure housing can be lined up	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

298 979 h

other information

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

