SIEMENS

Data sheet 6EP3437-8SB00-2AY0

SITOP PSU8600 3AC 40A PN
SITOP PSU8600 3AC 40A PN Stabilized power supply Input: 400-500 V 3 AC output: 24 V DC/40 A with PN/IE connection Integrated web server OPC UA server integrated

Input	
Input	3-phase AC
Rated voltage value Vin rated	400 ... 500 V
Voltage range AC	320 ... 575 V
• Note	Derating 320 … 360 and 530 … 575 V
Wide-range input	Yes
Mains buffering	at Vin = 400 V; Prioritized supply to the output on power failure via DIP switch can be selected (only with expansion module CNX8600)
Mains buffering at Iout rated, min.	15 ms; at Vin = 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	
• at rated input voltage 400 V	2.75 A
• at rated input voltage 500 V	2.2 A
Switch-on current limiting (+25 °C), max.	14 A
I^2t, max.	2.24 $A^2 \cdot s$

Built-in incoming fuse	none
Protection in the mains power input (IEC 898)	Required: 3-pole connected miniature circuit breaker 10 ... 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 Vout DC	24 V
Output voltage	
• at output 1 at DC Rated value	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. 960 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	40 A
Output current	
• per output	40 A
• at output 1 Rated value	40 A
Current range	0 ... 40 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. 480 W
Supplied active power typical	960 W
Short-term overload current	
• at short-circuit during operation typical	120 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.	72 W
Power loss [W] during no-load operation maximum	20 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	< 35 V
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	4 ... 40 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

Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage Uout 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 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
FM approval	-
CB 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	
• 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, L2, L3, PE: Plug-in terminal with 1 screwed connection each for 0.2 ... 4 mm² single-wire / fine stranded
• Output	Output: plug-in terminals with 2 screw connectors for 0.2 ... 4 mm²; 0 V: screw terminal with 3 screw connectors for 0.2 ... 4 mm²
• Auxiliary	RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm²
• signaling contact	11, 12, 14 (alarm signal): Plug-in terminal (together with Reset) with 1 screwed connection each for 0.2 ... 1.5 mm²
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 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	235 118 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)