SIEMENS

Data sheet 6EP3437-8MB00-2CY0

SITOP PSU8600 40A/4X 10A PN STABILIZED POWER SUPPLY INPUT: 3 400-500 V AC OUTPUT: 24 V/40 A/4X 10 A DC WITH PN/IE CONNECTION

Technical specifications	
Product	SITOP PSU8600
Power supply, type	24 V/40 A/4x 10 A

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 Iout rated, min.	15 ms; at Vin = 400 V
Note	Prioritized supply Output 1 at power failure can be selected via DIP switch
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current at rated input voltage 400 V Rated value	2.75 A
Input current at rated input voltage 500 V Rated value	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	4
Rated voltage Vout DC	24 V
Output voltage at output 1 for DC Rated value	24 V
Output voltage at output 2 for DC Rated value	24 V
Output voltage at output 3 for DC Rated value	24 V
Output voltage at output 4 for 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	11 ... 28 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer; Derating > 24 V: 4%/V; max. 240 W per output, 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 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	40 A
Output current per output	10 A
Output current at output 1 Rated value	10 A
Output current at output 2 Rated value	10 A
Output current at output 3 Rated value	10 A
Output current at output 4 Rated value	10 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
Active power supplied typical	960 W
Product property 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
Numbers of parallel switchable units for enhanced performance	0

Efficiency

Efficiency at Vout rated, Iout rated, approx.	93 %
Power loss at Vout rated, Iout rated, approx.	72 W
Active power loss 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 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 ... 10 A
type of threshold value setting	via potentiometer
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
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

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
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Explosion protection	-
Certificate of suitability IECEx	Yes
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
Approvals	No

Marine approval	-
Degree of protection (EN 60529)	IP20

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

Operating data	
Ambient temperature during operation	-25 ... +60 °C
• Note	with natural convection
Ambient temperature during transport	-40 ... +85 °C
Ambient temperature during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 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 0.08 ... 4 mm² single-wire / fine stranded
Connections Output	1, 2, 3, 4: Two plug-in terminals (1, 2 and 3, 4) with 2 screwed connections each for 0.2 ... 2.5 mm²; 0 V: Plug-in terminal with 3 screwed connections for 0.5 ... 10 mm²
Connections Auxiliary	RST (Reset): Plug-in terminal (together with alarm signal) with 1 screwed connection for 0.2 ... 1.5 mm²
Connections 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
Product function 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
Required spacing bottom	50 mm
Required spacing left	0 mm
Required spacing right	0 mm
Weight, approx.	2.65 kg
Product property 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
Mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)