SIEMENS

Data sheet 6EP3437-8SB00-4AY0



SITOP PSU8400/3AC/24VDC/40A IOL

SITOP PSU8400 3AC 40A IOL Stabilized power supply Input: 400-500 V 3 AC output: 24 V DC/40 A with IO-Link connection

Technical Product Detail Page	https://i.siemens.com/1P6EP3437-8SB00-4AY0
input	
type of the power supply network	3-phase AC or DC
supply voltage at AC	
● minimum rated value	400 V
● maximum rated value	500 V
● initial value	323 V
● full-scale value	576 V
supply voltage at AC	Derating 323 ... 360 and 550 ... 576 V
supply voltage at DC	500 ... 550 V
input voltage at DC	450 ... 600 V
wide range input	Yes
buffering time for rated value of the output current in the event of power failure minimum	30 ms
operating condition of the mains buffering	at Vin = 400 V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
● at rated input voltage 400 V	1.5 A
● at rated input voltage 500 V	1.2 A
input current at DC	
● at rated input voltage 500 V	2 A
● at rated input voltage 550 V	1.8 A
current limitation of inrush current at 25 °C maximum	5 A
I2t value maximum	0.1 A²·s
fuse protection type	none
fuse protection type in the feeder	required: 3-pole coupled miniature circuit breaker (IEC 898; for UL: UL489-listed/category DIVQ) characteristic C: 4 - 16 A, or circuit breaker (e.g. 3RV2011-1EA10, 3RV2711-1ED10 (UL489)), alternatively slow fuses (for UL: UL248-listed); suitable DC protection must be provided when operating with DC power supply.
output	
voltage curve at output	Controlled, isolated DC voltage
number of outputs	1
output voltage at DC rated value	24 V
output voltage	
● at output 1 at DC rated value	24 V
output voltage adjustable	Yes; via display and IO-Link interface
adjustable output voltage	22 ... 28 V; Derating > 24 V: max. 960 W power output (1152 W to 45°C)
relative overall tolerance of the voltage	3 %

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relative control precision of the output voltage	
● on slow fluctuation of input voltage	0.2 %
● on slow fluctuation of ohm loading	0.2 %
residual ripple	
● maximum	20 mV
voltage peak	
● maximum	100 mV
display version for normal operation	display and 3-color LED for operating, fault and communication status
type of signal at output	relay contact (NO contact, contact rating DC 30 V/0.1 A) for "24 V O.K."; configurable via IO-Link
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	0.5 s
voltage increase time of the output voltage	
● typical	50 ms
● maximum	50 ms
output current	
● rated value	40 A
● per output	40 A
● at output 1 rated value	40 A
● rated range	0 ... 40 A; 48 A up to 45 °C; +60 ... +70 °C: derating 3.75%/K
supplied active power typical	960 W
short-term overload current	
● at short-circuit during operation typical	120 A
duration of overloading capability for excess current	
● at short-circuit during operation	25 ms
constant overload current	
● at short-circuit during operation typical	48 A
bridging of equipment	Yes; active load distribution via control contact or inclined output characteristic can be selected via display and IO-Link
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	96 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	38 W
● during no-load operation maximum	5 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3 %
setting time	
● maximum	3 ms
protection and monitoring	
design of the overvoltage protection	max. 32 V
property of the output short-circuit proof	Yes
design of short-circuit protection	constant current characteristic or latching shutdown (selectable via display and IO-Link)
response value current limitation	30 ... 49 A
design of the current limitation	adjustable via display and IO-Link
overcurrent overload capability	
● in normal operation	150 % IaRated up to 5 s/min (configurable via display and IO-Link)
enduring short circuit current RMS value	
● maximum	56 A
● typical	48 A
display version for overload and short circuit	display and 3-color LED for operating status
design of the reset device/resetting mechanism	via display and IO-Link
interfaces	
product function communication function	Yes

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design of the interface	IO-Link
protocol is supported	
● IO-Link protocol	Yes
IO-Link transfer rate	COM3 (230.4 kBaud)
number of IO-Link ports	1
point-to-point cycle time between master and IO-Link device minimum	10 ms
data volume of the address range of the outputs with cyclical transfer for all IO-Link ports maximum	3 byte
data volume of the address range of the inputs with cyclical transfer for all IO-Link ports maximum	13 byte
protocol between master and IO-Link device Version 1.1	Yes
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage Vout according to EN 61204-7
operating resource protection class	Class I
leakage current	
● maximum	3.5 mA
protection class IP	IP20
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	EN 61000-3-2
● for interference immunity	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
● UKCA marking	Yes
● EAC approval	Yes
● Regulatory Compliance Mark (RCM)	Yes
● NEC Class 2	No
● SEMI F47	Yes
type of certification	
● CB-certificate	Yes
MTBF at 40 °C	340 000 h
standards, specifications, approvals hazardous environments	
certificate of suitability	
● IECEx	No
● ATEX	No
● ULhazloc approval	No
● UKEX	No
● CCC for hazardous zone according to GB standard	No
● FM registration	No
standards, specifications, approvals marine classification	
shipbuilding approval	No
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	No
● French marine classification society (BV)	No
● Det Norske Veritas (DNV)	No
● Lloyds Register of Shipping (LRS)	No
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
● total	1 020 kg
● during manufacturing	55.9 kg
● during operation	963 kg
● after end of life	0.5 kg
ambient conditions	

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ambient temperature	
● during operation	-40 ... +70 °C; with natural convection
● during transport	-40 ... +85 °C
● during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
connection method	
type of electrical connection	screw-type terminals and push-in terminals
● at input	L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm² single-core/finely stranded
● at output	+1, +2, -1, -2, -3: 1 screw terminal each for 0.5 ... 16 mm² solid/finely stranded (10 mm² with ferrule)
● for auxiliary contacts	PAR SYNC OUT/IN: 1 push-in terminal each for 0.2 ... 1.5 mm²
● for signaling contact	13, 14: 1 push-in terminal each for 0.2 ... 1.5 mm²
removable terminal at input	No
removable terminal at output	No
design of the interface for communication	L+, C/Q, L- (IO-Link): 1 push-in terminal each for 0.2 ... 1.5 mm²
mechanical data	
width × height × depth of the enclosure	99 × 145 × 125 mm
installation width × mounting height	99 mm × 225 mm
required spacing	
● top	40 mm
● bottom	40 mm
● left	0 mm
● right	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
● DIN-rail mounting	Yes
● S7 rail mounting	No
● wall mounting	No
housing can be lined up	Yes
net weight	1.9 kg
further information internet links	
internet link	
● to website: Industry Mall	https://mall.industry.siemens.com
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: power supplies	https://siemens.com/sitop
● to website: CAx-Download-Manager	https://siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com
identification link	Yes; acc. to IEC 61406-1:2022
additional information	
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)
Classifications	

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	Version	Classification
eClass	14	27-04-07-01
eClass	12	27-04-07-01
eClass	9.1	27-04-07-01
eClass	9	27-04-07-01
eClass	8	27-04-90-02
eClass	7.1	27-04-90-02
eClass	6	27-04-90-02
ETIM	10	EC002540
ETIM	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540

Approvals Certificates

General Product Approval					Environment
Manufacturer Declaration	UKCA	CE EG-Konf.	UL	CB CB	EPD

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