



SITOP PSU8400/3AC/DC24V/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

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 $V_{in} = 400 \text{ V}$
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
I ² t value maximum	0.1 A ² ·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 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.2 %

<ul style="list-style-type: none"> on slow fluctuation of ohm loading 	0.2 %
residual ripple	
<ul style="list-style-type: none"> maximum 	20 mV
voltage peak	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> typical 	50 ms
<ul style="list-style-type: none"> maximum 	50 ms
output current	
<ul style="list-style-type: none"> rated value 	40 A
<ul style="list-style-type: none"> per output 	40 A
<ul style="list-style-type: none"> at output 1 rated value 	40 A
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> at short-circuit during operation typical 	120 A
duration of overloading capability for excess current	
<ul style="list-style-type: none"> at short-circuit during operation 	25 ms
constant overload current	
<ul style="list-style-type: none"> 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]	
<ul style="list-style-type: none"> at rated output voltage for rated value of the output current typical 	38 W
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> in normal operation 	150 % IaRated up to 5 s/min (configurable via display and IO-Link)
enduring short circuit current RMS value	
<ul style="list-style-type: none"> maximum 	56 A
<ul style="list-style-type: none"> 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
design of the interface	IO-Link
protocol is supported	
<ul style="list-style-type: none"> 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; cCSAus (CSA C22.2 No. 62368-1, UL 62368-1)
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 62368-1, UL 62368-1)
• UKCA marking	Yes
• EAC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
• NEC Class 2	No
• SEMI F47	Yes
type of certification	
• BIS	Yes; in preparation
• 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
• cCSAus, Class 1, Division 2	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
ambient conditions	
ambient temperature	
• during operation	-40 ... +70; with natural convection
• during transport	-40 ... +85
• during storage	-40 ... +85
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

Approvals Certificates

General Product Approval

[Manufacturer Declaration](#)



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