

SITOP PSU300M 48 V/20 A

SITOP PSU300M 48 V/20 A Stabilized power supply Input: 400-500 V 3 AC Output: 48 V DC/20 A !!! Phased-out product !!! Successor: 6EP3447-8SB00-0AY0



### Input

Input	3-phase AC
Rated voltage value Vin rated	400 ... 500 V
Voltage range AC	320 ... 550 V
• Note	Starting from Vin > 340 V
Wide-range input	Yes
Oversupply resistance	2.3 × Vin rated, 1.3 ms
Mains buffering	at Vin = 400 V
Mains buffering at Iout rated, min.	6 ms; at Vin = 400 V
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	2.2 A
Switch-on current limiting (+25 °C), max.	70 A
I <sup>2</sup> t, max.	2.8 A <sup>2</sup> ·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)
<b>Output</b>		
Output		Controlled, isolated DC voltage
Rated voltage Vout DC		48 V
Total tolerance, static $\pm$		3 %
Static mains compensation, approx.		0.1 %
Static load balancing, approx.		0.2 %
Residual ripple peak-peak, max.		100 mV
Residual ripple peak-peak, typ.		10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)		200 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)		80 mV
Adjustment range		42 ... 56 V
Product function Output voltage adjustable		Yes
Output voltage setting		via potentiometer; max. 960 W
Status display		Green LED for 48 V OK
Signaling		via signaling module (6EP1961-3BA10)
On/off behavior		No overshoot of Vout (soft start)
Startup delay, max.		2.5 s
Voltage rise, typ.		20 ms
Rated current value Iout rated		20 A
Current range		0 ... 20 A
Supplied active power typical		960 W
Short-term overload current		
• at short-circuit during operation typical		60 A
Duration of overloading capability for excess current		
• at short-circuit during operation		25 ms
Constant overload current		
• on short-circuiting during the start-up typical		23 A
Parallel switching for enhanced performance		Yes; switchable characteristic
Numbers of parallel switchable units for enhanced performance		2
<b>Efficiency</b>		
Efficiency at Vout rated, Iout rated, approx.		90 %
Power loss at Vout rated, Iout rated, approx.		106 W
<b>Protection and monitoring</b>		
Output overvoltage protection		Yes, according to EN 60950-1
Current limitation, typ.		23 A
Property of the output Short-circuit proof		Yes
Short-circuit protection		Alternatively, constant current characteristic approx. 23 A or latching shutdown
Enduring short circuit current RMS value		

• typical	23 A
Overload/short-circuit indicator	LED yellow for "overload", LED red for "latching shutdown"
<b>Safety</b>	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
Protection class	Class I
Leakage current	
• maximum	3.5 mA
• typical	0.68 mA
Degree of protection (EN 60529)	IP20
<b>Approvals</b>	
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, UL 60950)
Explosion protection	-
FM approval	-
CB approval	No
Marine approval	ABS, DNV GL
<b>EMC</b>	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
<b>environmental conditions</b>	
Ambient temperature	
• during operation	0 ... 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
<b>Mechanics</b>	
Connection technology	screw-type terminals
Connections	
• Supply input	L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm <sup>2</sup> single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.33 ... 10 mm <sup>2</sup>
• Auxiliary	-
Width of the enclosure	240 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Required spacing	
• top	50 mm

• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	3.2 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x15
Electrical accessories	Signaling module
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)