

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



Input	
Input	3-phase AC
Rated voltage value V_{in} rated	400 ... 500 V
Voltage range AC	320 ... 550 V
• Note	Starting from $V_{in} > 340$ V
Wide-range input	Yes
Overvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at I_{out} rated, min.	6 ms; at $V_{in} = 400$ 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^2t , max.	2.8 A ² ·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
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

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	90 %
Power loss at Vout rated, Iout rated, approx.	106 W

Protection and monitoring	
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"

Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage V_{out} according to EN 60950-1
Protection class	Class I
Leakage current • maximum • typical	3.5 mA 0.68 mA
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	GL, ABS
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 — Note • during transport • during storage	0 ... 60 °C with natural convection -40 ... +85 °C -40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections • Supply input • Output • Auxiliary	L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm ² single-core/finely stranded +, -: 2 screw terminals each for 0.33 ... 10 mm ² -
Width of the enclosure	240 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Required spacing • top • bottom • left • right	50 mm 50 mm 0 mm 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)