



SITOP PSU300M 48 V/20 A STABILIZED POWER SUPPLY
 INPUT: 400-500 V 3 AC OUTPUT: 48 V DC/20 A

Technical specifications

Product	SITOP modular
Power supply, type	48 V/20 A
Input	
Input	3-phase AC
Rated voltage value V_{in} rated	400 ... 500 V
Voltage range	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
Mains buffering	at $V_{in} = 400$ V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the 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 ±	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 feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
• Note	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
delivered active power / typ.	960 W
Constant overload current / in the event of a short circuit during startup /typical	23 A
short-term overload current / at short-circuit during operation / typical	60 A
Duration of overloading ability for excess current / on short-circuiting during the operational phase	25 ms
Parallel switching for enhanced performance	Yes
• Note	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
Closed-loop control	
Protection and monitoring	
Output overvoltage protection	Yes, according to EN 60950-1
Current limitation, typ.	23 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Alternatively, constant current characteristic approx. 23 A or latching shutdown

Enduring short circuit current / Effective level / typical	23 A
Overload/short-circuit indicator	LED yellow for "overload", LED red for "latching shutdown"
Safety	
Primary/secondary isolation	Yes
Potential separation	Safety extra low output voltage V_{out} according to EN 60950-1
Protection class	Class I
stray current / maximum	3.5 mA
stray current / typical	0.68 mA
CE mark	Yes
UL/CSA approval	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 / in operation	0 ... 60 °C
• Note	with natural convection
Ambient temperature / on transport	-40 ... +85 °C
Ambient temperature / in storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation
Mechanics	
Connection technology	screw-type terminals
Connections / Supply input	L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm ² single-core/finely stranded
Connections / Output	+, -: 2 screw terminals each for 0.33 ... 10 mm ²
Connections / Auxiliary	-
Width / of the housing	240 mm
Height / of the housing	125 mm
Depth / of the housing	125 mm
Installation width	240 mm
Mounting height	225 mm
Weight, approx.	3.2 kg
Product feature / of the housing / housing for side-by-side mounting	Yes

Mounting type / wall mounting	No
Type of mounting / standard rail mounting	Yes
Mounting type / S7-300 rail mounting	No
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)

letzte Änderung:

Apr 16, 2014