



SITOP PSU100M 20A STABILIZED POWER SUPPLY
INPUT: 120-230 V AC 110-220 V DC OUTPUT: 24 V/20 A
DC

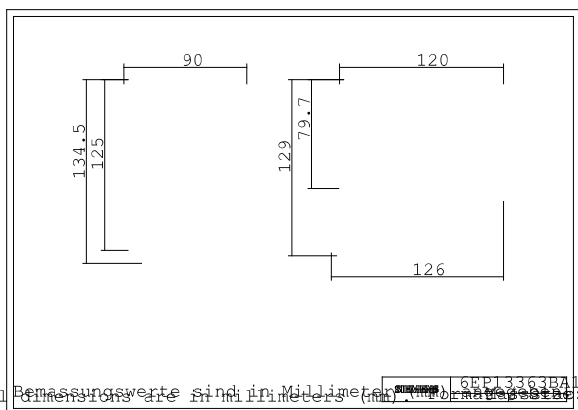
Technical specifications

Product	SITOP PSU100M
Power supply, type	24 V/20 A
Input	
Input	1-phase and 2-phase AC or DC
Supply voltage / at DC	110 V ... 300 V
Rated voltage value V_{in} rated	120 V ... 230 V
Voltage range	85 V ... 275 V
• Note	Derating of temperature down to 50 °C necessary at $V_{in} < 100$ V AC or DC
Input voltage / at DC	88 V ... 350 V
Wide-range input	Yes
Overvoltage resistance	Implemented internally with varistors
Mains buffering at I_{out} rated, min.	20 ms
Mains buffering	at $V_{in} = 230$ V
Rated line frequency	50 Hz / 60 Hz
Rated line range	45 Hz ... 65 Hz
Input current / at nominal level of the input voltage 120 V	4.6 A
Input current / at nominal level of the input voltage 230 V	2.5 A
Switch-on current limiting (+25 °C), max.	20 A
Inrush current A^2s	5 A^2s

Built-in incoming fuse	Yes
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker at 1-phase operation: 10 A , characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker (8 or 4 A) acc. to UL 489: 3RV2711-1HD10 (120 V) or 3RV2711-1ED10 (230 V)
Output	
Output	controlled, isolated DC voltage
Rated voltage	24 V
Total tolerance, static \pm	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.3 %
Residual ripple peak-peak, max.	100 mV
Residual ripple peak-peak, typ.	80 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	100 mV
Adjustment range	24 V ... 28.8 V
Product feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
Signaling	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	0.25 s
Voltage rise, typ.	50 ms
Rated current value Iout rated	20 A
Current range	0 A ... 20 A
• Note	> 60 °C Derating
delivered active power / typ.	480 W
constant overload current / at short-circuit during run-up / typical	30 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.	93 %
Power loss at Vout rated, Iout rated, approx.	42 W
Closed-loop control	
Dynamic mains compensation (Vin rated ± 15 %), max.	0.5 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout \pm typ.	1 %
Load step setting time 50 to 100%, typ.	1 ms

Load step setting time 100 to 50%, typ.	1 ms
Setting time / maximum	5 ms
Protection and monitoring	
Output overvoltage protection	< 33 V
Current limitation, typ.	21.5 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
• Note	overload capability 150 % I _{out} rated up to 5 s/min
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 and EN 50178
Protection class	Class I
stray current / maximum	3.5 mA
stray current / typical	1 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Explosion protection	in preparation
FM approval	-
CB approval	No
Marine approval	GL and ABS in process
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	-25 °C ... 70 °C
• Note	with natural convection
Ambient temperature / on transport	-40 °C ... 85 °C
Ambient temperature / in storage	-40 °C ... 85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation
Mechanics	
Connection technology	screw-type terminals
Connections / Supply input	L, N, PE: 1 screw terminal each for 0.2 ... 4 mm ² single-core/finely stranded

Connections / Output	+, -: 2 screw terminals each for 0.2 ... 4 mm ²
Connections / Auxiliary	Alarm signals: 2 screw terminals for 0.14 ... 1.5 mm ²
Width / of the housing	90 mm
Height / of the housing	125 mm
Depth / of the housing	125 mm
Installation width	90 mm
Mounting height	225 mm
Weight, approx.	1.2 kg
Product feature / of the housing / housing for side-by-side mounting	Yes
Type of mounting / wall mounting	No
Type of fixing / cap rail mounting	Yes
Type of mounting / S7-300 rail mounting	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Buffer module
Mechanical accessories	Device identification label 20 mm × 7 mm, pastel-turquoise 3RT1900-1SB20



letzte Änderung:

Sep 21, 2011