



SITOP MODULAR 20 STABILIZED POWER SUPPLY
INPUT: 400-500 V 3 AC OUTPUT: 24 V DC/20 A

Technical specifications

Product	SITOP modular
Power supply, type	24 V/20 A
Input	
Input	3-phase AC
Rated voltage value V_{in} rated	400 V ... 500 V
Voltage range	320 V ... 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 Hz / 60 Hz
Rated line range	47 Hz ... 63 Hz
Input current / at nominal level of the input voltage 400 V	1.1 A
Input current / at nominal level of the input voltage 500 V	0.9 A
Switch-on current limiting (+25 °C), max.	35 A
I^2t , max.	0.7 A ² ·s
Built-in incoming fuse	none

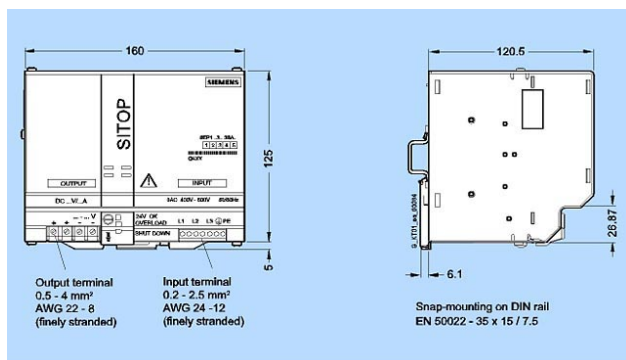
Protection in the mains power input (IEC 898)	Required: 3-pole connected miniature circuit breaker 6 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)
Output	
Output	controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.2 %
Residual ripple peak-peak, max.	100 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV
Adjustment range	24 V ... 28.8 V
Product feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
• Note	max. 480 W
Status display	Green LED for 24 V OK
Signaling	via signaling module (6EP1961-3BA10)
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	2.5 s
Voltage increase time / of the output voltage / maximum	500 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	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.	53 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	2 %
Load step setting time 50 to 100%, typ.	4 ms
Load step setting time 100 to 50%, typ.	4 ms
Setting time / maximum	10 ms

Protection and monitoring	
Output overvoltage protection	< 35 V
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 and EN 50178
Protection class	Class I
stray current / maximum	3.5 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
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	0 °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	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 ... 4 mm ²
Connections / Auxiliary	-
Width / of the housing	160 mm

Height / of the housing	125 mm
Depth / of the housing	125 mm
Installation width	160 mm
Mounting height	225 mm
Weight, approx.	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, signaling module



letzte Änderung:

Sep 21, 2011