SIEMENS

Data sheet 6EP1437-3BA20

SITOP PSU300B 24 V/30 A
SITOP PSU300B 30 A STABILIZED POWER SUPPLY INPUT: 3 AC 400-500 V OUTPUT: DC 24 V/30 A

Input	
Input	3-phase AC
Rated voltage value Vin rated	400 ... 500 V
Voltage range AC	320 ... 575 V
Wide-range input	Yes
Mains buffering at Iout rated, min.	20 ms; at Vin = 400 V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 400 V	1.6 A
• at rated input voltage 500 V	1.3 A
Switch-on current limiting (+25 °C), max.	56 A
I^2t, max.	2.24 $A^2 \cdot s$
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	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.1 %
Residual ripple peak-peak, max.	100 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV
Adjustment range	24 ... 28.8 V
Product function 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.	2.5 s
Voltage increase time of the output voltage maximum	500 ms
Rated current value Iout rated	30 A
Current range	0 ... 30 A
• Note	+60 ... +70 °C: Derating 1.7%/K
Active power supplied typical	960 W
Constant overload current	
• on short-circuiting during the start-up typical	32 A
• at short-circuit during operation typical	32 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.	93 %
Power loss at Vout rated, Iout rated, approx.	50 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	3 %
Setting time maximum	10 ms

Protection and monitoring	
Output overvoltage protection	< 35 V
Current limitation, typ.	32 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Alternatively, constant current characteristic approx. 32 A or latching shutdown
Enduring short circuit current RMS value	
• typical	32 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 Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current	
• maximum	3.5 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	-
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	No
Marine approval	-
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	-25 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during 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 mm² single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.33 ... 10 mm²
• Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm²
Width of the enclosure	150 mm
Height of the enclosure	125 mm
Depth of the enclosure	150 mm
Weight, approx.	3.4 kg
Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x15

Electrical accessories	Buffer module
Mechanical accessories	Device identification label 20 mm × 7 mm, pastel-turpuoise 3RT1900-1SB20
MTBF at 40 °C	885 739 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)