SIEMENS

Data sheet 6EP1437-3BA10

SITOP PSU8200 24 V/40 A
SITOP PSU8200 24 V/40 A Stabilized power supply input: 3 AC 400-500 V output: 24 V DC/40 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.	15 ms; at Vin = 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	2.6 A
• at rated input voltage 500 V	2.1 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

Subject to change without notice
© Copyright Siemens

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 ... 28.8 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer; max. 960 W
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	40 A
Current range	0 ... 40 A
• Note	+60 ... +70 °C: Derating 3.75%/K
Supplied active power typical	960 W
Short-term overload current	
• at short-circuit during operation typical	120 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	44 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.	92 %
Power loss at Vout rated, Iout rated, approx.	83 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.	44 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Alternatively, constant current characteristic approx. 44 A or latching shutdown

Subject to change without notice
© Copyright Siemens

Enduring short circuit current RMS value	
• typical	44 A
Overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
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/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
Explosion protection	IECEx Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4
FM approval	-
CB approval	Yes
Marine approval	ABS, DNV GL
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; startup tested starting from -40 °C nominal voltage
• 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

Subject to change without notice
© Copyright Siemens

Depth of the enclosure	150 mm
Required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	3.4 kg
Product feature 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, TI-grey 3RT2900-1SB20
MTBF at 40 °C	885 739 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

© Copyright Siemens