

## SPJ100 Series, 100W Open Frame



### Features

- 100 W convection-cooled rating
- Small 5 x 3 x 1.07 inches form factor
- 6.7 W/in<sup>3</sup> power density
- High efficiency > 85%
- Low conducted and radiated noise
- Power good and power fail signal
- Cover kit accessory available

### Electrical Specifications

AC Input	90-264 V, Universal	
Input Frequency	47-63 Hz	
Input Current	120 VAC: 2.0 A max.	230 VAC: 1.0 A max.
Inrush Current	120 VAC: 18 A max.	230 VAC: 35 A max.
Leakage Current	120 VAC: < 500 $\mu$ A	230 VAC: < 1000 $\mu$ A
Efficiency	120 VAC: 83% typical	230 VAC: 85% typical
Hold-up Time	120 VAC: 10 ms	230 VAC: 16 ms
Output Power	100 W	
Line Regulation	+/-0.3%	
Load Regulation <sup>1</sup>	V1: +/-1%; V2, V3 and V4: +/-5%	
Transient Response	10%, 50% to 100% load change, 50/60 Hz, 50% duty cycle, 0.1 A/ $\mu$ s, recovery time < 5 ms	
Rise Time	< 50 ms	
Set Point Tolerance	V1: +/-2%; V2, V3, V4: +/-5%	
Over Current Protection	110 to 170%	
Over Voltage Protection	6.2 V +/-0.4 V for 5 V	
Short Circuit Protection	Short term, autorecovery	
Switching Frequency	Boost converter: 45 kHz typical Resonant converter: 45 kHz typical	
Operating Temperature	0 to 70°C, refer derating curve	
Storage Temperature	-40 to +85°C	
Relative Humidity	95% Rh, noncondensing	
Altitude	Operating: 10,000 ft.; Nonoperating: 40,000 ft.	
MTBF	1.02m Hours, Telcordia SR332 Issue-3	
Isolation Voltage	Min. 4242 VDC between input to output	
Cooling	Convection	



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Available outputs:

Model	Output Voltage	Max. Load	Min. Load	Ripple
SPJ100-120-XY	12V	7.5A	1.0A	3%
SPJ100-150-XY	15V	6.67A	0.5A	3%
SPJ100-240-XY	24V	4.2A	0.1A	1.5%
SPJ100-480-XY	48V	2.1A	0.2A	1%
SPJ100-4000-XY	V1=5.1V, V2=12.25V, V3=-12V, V4= -12V	V1=12.0V, V2=4.0A, V3=0.8A, V4=0.8A	V1=3.0A, V2=0.1A, V3=0.0A, V4=0.0A	1.5%
SPJ100-4001-XY	V1=5.1V, V2=24.5V, V3=12V, V4= -12V	V1=12.0V, V2=3.0A, V3=0.8A, V4=0.8A	V1=3.0A, V2=0.1A, V3=0.0A, V4=0.0A	1%
SPJ100-4002-XY	V1=5.1V, V2=16V, V3=-4.8V, V4= -15.5V	V1=12.0V, V2=3.0A, V3=0.8A, V4=0.8A	V1=3.0A, V2=0.1A, V3=0.0A, V4=0.0A	1%
SPJ100-4003-XY	V1=5.1V, V2=12V, V3=24V V4= -12V	V1=12.0V, V2=4.0A, V3=0.8A, V4=0.8A	V1=3.0A, V2=0.1A, V3=0.0A, V4=0.0A	2%

Mechanical Specifications	
AC Input Connector (J1)	Molex: 26-60-4030 or equivalent Mating: 09-50-3031; Pins: 08-50-0106
EARTH	Molex: 19705-4301 Mating: 190030001
DC Output Connector (J2)	Tyco: 1-640445-2 or equivalent Mating: 1-647402-2; Pins: 3-647409-1
Signal Connector (J3)	Molex: 22-23-2021 or equivalent Mating: 22-01-2021
Dimensions	5.0 x 3.04 x 1.07 inches (127.0 x 77.22 x 27.18 mm)
Weight	250 g
EMC	
CE Mark	Complies with LVD Directive
Conducted Emissions	EN55022-B, CISPR22-B, FCC PART15-B, EN50082-1
Static Discharge	EN61000-4-2, Level-3
RF Field Susceptibility	EN61000-4-3, Level-3
Fast Transients/Bursts	EN61000-4-4, Level-3
Radiated Emissions	EN55022-B, CISPR22-B, FCC PART15-B To be controlled in end system
Surge Susceptibility	EN61000-4-5, Level-3
Harmonic current	EN61000-3-2, Class A
Safety	
Safety Standard(s)	IEC60950-1 (ed.2), EN60950-1, UL60950-1 (2nd Edition), CSA C22.2 No. 60950-1 (2nd Edition), Class 1 SELV
Approval Agency	Nemko, UL, C-UL

Connectors		
J1	Pin 1	AC NEUTRAL
	Pin 2	AC LINE
Spade Connector		EARTH
J2	Pin 1, 2, 3, 4	V1
	Pin 5, 6, 7, 8	RTN
	Pin 9, 10	V2
	Pin 11	V3
J3	Pin 1	RTN
	Pin 2	POWER FAIL/GOOD

