

FEATURES

SP120 Series 120W Open Frame Power Supply

12VDC to 48VDC Output Active Power Factor Correction High Efficiency Up to 87% - EPS 2.0/CEC V Convection Cooled Very Low Profile (0.79in - 20mm) Up to 70°C Ambient Temperature Operation UL cUL, CB & TUV (EN60950) Safety Approval FCC & CISPR Class B CE Mark (LVD) Available in 2.5 x 5in. (N) and 3 x 5in. Form Factors Constant Current (C) Model Availalbe NTC Transformer Winding (T) OTP Option



SPECIFICATION

	Model	SP120-S2-xx	SP120-S3-xx	SP120-SK-xx*	SP120-S4-xx	SP120-SR-xx*	SP120-S6-xx	SP120-S5-xx	
Output	DC Voltage	12V	15V	20V	24V	30V	36V	48V	
	Current Range (Rated)	0 ~ 8.4A	0 ~ 8A	0 ~ 6A	0 ~ 5A	0 ~ 4A	0 ~ 3.3A	0 ~ 2.4A	
	Peak	12.6A	12A	9A	7.5A	6A	5A	3.6A	
	Constant Current	10A	9.6A	7.2A	6A	4.8A	4A	2.9A	
	Rated Power	100W	120W	120W	120W	120W	120W	120W	
	Ripple & Noise (max.) (1)	1% Pk to Pk							
	Voltage Tolerance (2)	±3%							
	Line Regulation (3)	±0.5%							
	Load Regulation (4)	±2%							
	Setup, Rise Time 115VAC	3S							
	Hold-up Time	16mS typ. At full load 115/230 VAC							
Input	Voltage Range	90V ~ 264VAC							
	Frequency Range	47Hz / 63Hz							
	Efficiency (Typ. @ 115V AC)	85%	85%	87%	87%	87%	87%	87%	
	No-Load Power Consumption	<0.5W @ 240VAC							
	AC Current (max.)	2.0A @ 115VAC							
	Inrush Current (max.)	Will not exceed 80A / 240VAC, Cold Start, 25°C							
Protections	Short Circuit Protection	Protection type : Current Fold-back, recovers automatically after fault condition is removed							
	Over Load	130-180%CV 110-130%CC rated output power							
		Protection type : Current Fold-back, recovers automatically after fault condition is removed							
	Over Voltage	130% ~ 160% rated output voltage							
		Protection type : Latch mode, Recycle AC to restart							
	Temperature Range	Operational 0°C ~ 70°C Derate 2.5% power to each °C over 50°C							
ntal		Storage -40°C to +85°C							
hme	Working Humidity	Operational 5 ~ 95% RH non-condensing							
viro	Temp.Coefficient	±0.01%/°C typical on all outputs							
ш	Shock	Operating half sine 20Gpk / max 3 axis 10mS 6 shocks total							
	Vibration	Random Operating 2.4 Grms / max. 3 axis 50-500Hz 10min / axis							
MC	Safety Standards	UL/cUL (60950-1:2001) , TUV and CB $$ * Pending on SR and SK models							
Safety & EI	Withstand Voltage	I/P - O/P: 3KVAC (4242 DC), 10mA for 1 minute							
	EMI Conducted & Radiated	EN55022, FCC/CISPR Class B							
	EMS Immunity	EN61204, EN61000-3-2, EN61000-3-3							
Other	MTBF	>100,000 hrs @ 25°C and full load based on MIL-HDBK-217F							
	Dimension (L*W*H)	Standard 127*76.2*20(mm) - 5.0*3.0*0.79 (inch) / Narrow 127*63.5*20(mm) - 5.0*2.5*0.79 (inch)							
	Weight	230g							



Part Number Builder:

SP120-xxx-XYZ

X= T for NTC winding on transformer - If Needed or Blank

- Y= C for Constant Current Option If Needed or Blank
- Z= N for Narrow Form Factor Option If Needed or Blank

Mechanical Specification



PIN ASSIGNMENT								
	CN1	CN2						
	Input	Output						
PIN 1	LINE	RETURN						
PIN 2	N.C.	RETURN						
PIN 3	NEUTRAL	RETURN						
PIN 4		+V						
PIN 5		+V						
PIN 6		+V						
CONNECTOR	Pontronics M3961W- 03(PIN2 NC) or Equivalent.	Pontronics M3961W- 06 or Equivalent.						

SHIPPING SPECIFICATIONS								
SERIES	UNITS PER CARTON	CARTON WEIGHT						
SP120	30.0	10.2 Kgs	22.5 Lbs					

NOTES:

- 1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 2. Tolerance: includes set up tolerance, line regulation and load regulation.
- 3. Line regulation is measured from low line to high line at rated load.
- 4. Load regulation is measured from 0% to 100% rated load.

Specification subject to change without notice.