

UNIVERSAL 80W POWER SUPPLY RUGGEDIZED MILITARY DESIGN

RTPS80-01 Series

09/20/2016

* Designed to meet Meet FCC Part 15 Class B, CISPR22.2 Class A

* Rugged metal enclosure with potting offers improved shock and vibration performance and resistance to environmental factors

* Universal input 100~240V +/- 10%

* Convection cooled

* Compact size



SPECIFICATION

MODEL		RTPS 80 Series		
INPUT	Voltage and Frequency	90~264Vac, 47 ~ 63Hz		
	AC Current	1 A maximum at any input voltage range at maximum load condition		
	Inrush Current (Typ.)	less than 40A at 120V~240v input (Optional low inrush model: less than 15 A at 110V input and less than 30 A at 220V input)		
	Power Factor	Active power factor correction, meets EN61000-3-2 CLASS A		
	Leakage Current	<0.75mA / 240VAC 60HZ		
OUTPUT	Part Number	RTPS 80-05-01	RTPS 80-12-01	RTPS 80-24-01
	Output Voltage	5V	12V	24V
	Current (A) Minimum	0A	0A	0A
	Current (A) Maximum	16A	6.7A	3.3A
	Max Rated Power	80W	80W	80W
	Voltage Initial Setting	+/- 1%	+/- 1%	+/- 1%
	Combined Load/Line Regulation	Output Maximum full rated o/p, CURRENT Regulation +/-5%,		
	Ripple and Noise	The ripple and noise is as follows when measured with maximum bandwidth of 20Mhz and 4.7uF/50V capacitor connected at output wire shall be less than 1% P-P		
	Efficiency	81% minimum at 120~240VAC at maximum load		
	Turn-On Time	0.5S maximum to 90% of rated output voltage.		
Hold up time	8 mS minimum			
PROTECTION	Over Current	Output limited less than 120% max rated output current		
	Short Circuit	output shall shut down and automatic restart		
	Over Voltage	Power supply shall not exceed 115% ~130% of rated output voltage.		
	Over Temperature	Power supply shall reduce the output voltage and current at the out of spec high temperature condition and maintain the hot spot temperature below components rating.		
ENVIRONMENT	Operating Temperature	nominal -40 to +60°C ambient at full load Linearly de-rate output power to 70% up to 80°C		
	Operating Humidity	5% to 95%, non-condensing		
	Cooling Requirement	Natural air convection cooling		
	Storage Temp., Humidity	-40 ~ +85°C 10 ~95% R.H		
	Altitude	15,000 ft minimum operation and -500ft to 40,000 ft storage		
SAFETY & EMC	Vibration	Frequency 5 to 50 Hz, acceleration ±7.35 M/(S*S), direction X,Y and Z Axis		
	Safety Standards	Compliant to UL1310 with class 2 output and UL60950 requirement		
	EMI Conduction & Radiation	Meets FCC Part 15 Class B, CISPR22.2 Class A		
	Reliability	Mean Time Between Failure (MTBF) >100,000 hours, MIL-HDBK217E at 40 degrees C ambient.		
	EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, EN55024, heavy industry level (surge 4KV), criteria A		
	Isolation	1500VAC minimum from AC input to DC output 1500VAC minimum from AC input to Chassis Ground 500VAC minimum from DC output to Chassis Ground		
	Burn-In	48 hours at 100% rated load prior to final testing		
	MTBF	200K hrs minimum at 25C, convection cooled, per part calculation method		
Warranty	3 years			

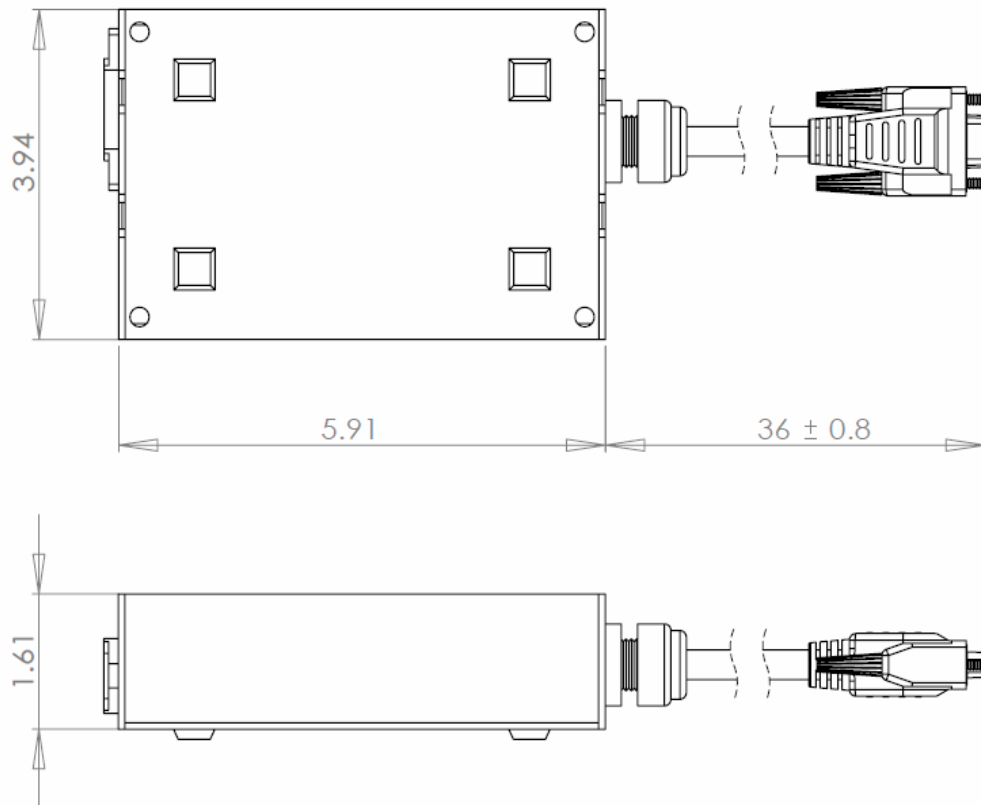
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MECHANICAL

Physical construction	Rugged metal enclosure with potting offers improved shock and vibration performance and resistance to environmental factors
Dimensions	5.91(L) X 3.94(W) X 1.61(H) INCH
AC input	IEC60320 C14 type power entry connector that meets IP52 minimum.
DC OUTPUT cable	36" +/-2", with D-Sub 15 pin connector



Output Pin Connections

Pin	D-Sub Type	Pin	D-Sub Type
1	Shell, Chassis Ground	9	+5VDC Return
2	+5VDC	10	+5VDC
3	+5VDC	11	+5VDC
4	+5VDC	12	+5VDC
5	+5VDC	13	+5VDC Return
6	+5VDC Return	14	+5VDC Return
7	+5VDC Return	15	+5VDC Return
8	+5VDC Return		