



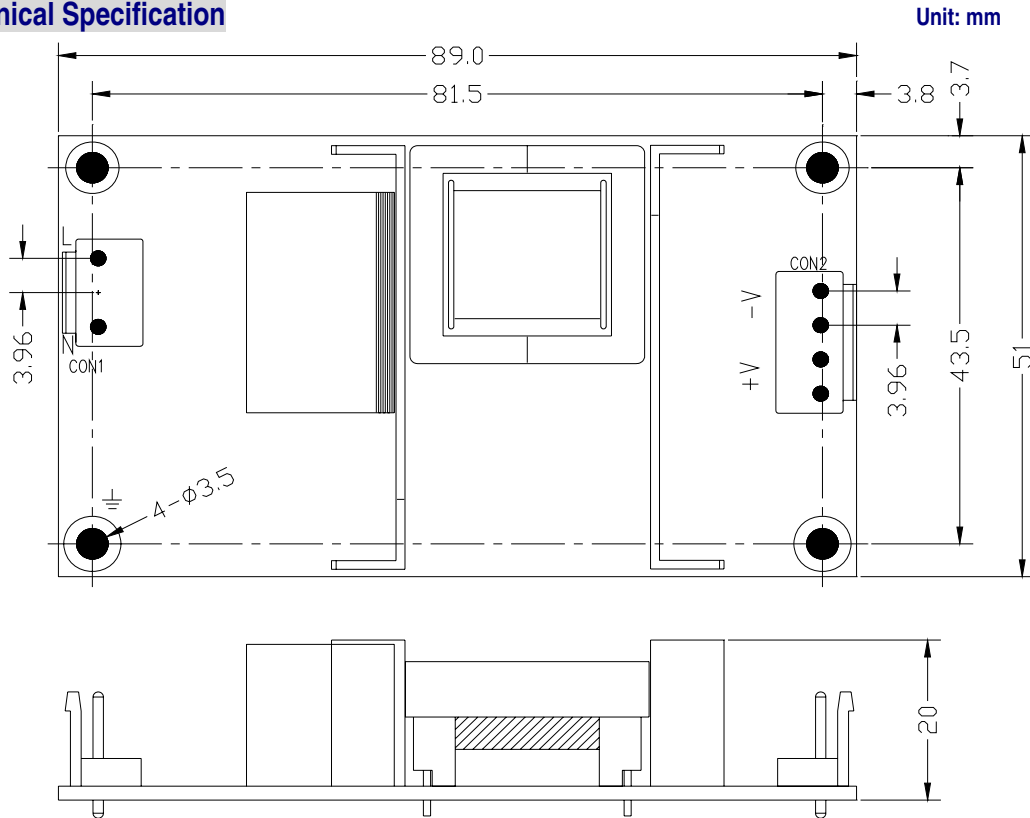
### Features:

- Universal AC input/ Full range
- High Efficiency, and High reliability
- Ultra-miniature size, low profile
- Output protections: OLP/OVP/SCP
- Wide operating ambient temperature (-20°C~60°C)
- All using 105°C long life electrolytic capacitors.
- 100% full load burn-in test
- 3 years warranty

### SPECIFICATION

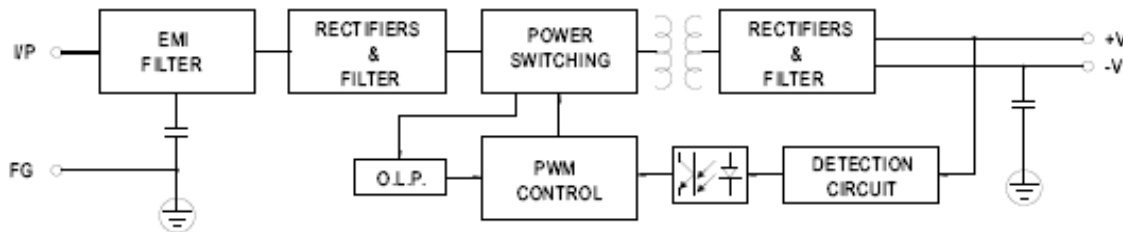
MODEL		PD-20-3.3	PD-20-5	PD-20-12	PD-20-15	PD-20-24	PD-20-48	
OUTPUT	DC Output	3.3V	5V	12V	15V	24V	48V	
	Rated Current	4A	4A	1.67A	1.34A	0.84A	0.42A	
	Current Range	0~4A	0~4A	0~1.67A	0~1.34A	0~0.84A	0~0.42A	
	Ripple and Noise	0~60°C	<50mV	<50mV	<50mV	<50mV	<50mV	<100mV
		-20~0°C	<75mV	<75mV	<75mV	<75mV	<75mV	<100mV
	Voltage ADJ. Range	3.1~3.6V	4.4~5.6V	11.1~13.1V	13.7~16.1V	22.0~25.4V	45.6~50.4V	
	Voltage Accuracy	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	Load Regulation	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	
	Set-up Time	<2.0S (115Vac input, Full load); <1.0S (230Vac input, Full load)						
	Hold up Time	>10mS(115Vac input, Full load); >20mS(230Vac input, Full load)						
	Temperature Coefficient	±0.03%/°C						
	Overshoot and Undershoot	<5.0%						
INPUT	Voltage Range	90Vac~264Vac,127Vdc~370Vdc						
	Frequency Range	47Hz~63Hz						
	Efficiency ( Typical)	115Vac input	69%	76%	79%	80%	80%	80%
		230Vac input	68%	75%	78%	79%	79%	79%
	AC Current (max.)	<0.5A						
	Inrush Current (Typical)	Cold start 20A@115Vac 40A@230Vac						
Leakage Current	Input—output:<0.35mA Input—PG:<0.75mA							
PROTECTION	Over Load	105%~150% rated output power; Hiccup mode, auto recovery						
	Over Voltage	110%~140% of rated output voltage, Constant Voltage.						
	Short Circuit	Long-term mode, auto recovery						
ENVIRONMENT	Operating amb. Temp. & Hum.	-20°C~60°C; 20%~90%RH No condensing(refer to the derating curve)						
	Storage Temp. & Hum.	-40°C~85°C; 10%~95%RH No condensing						
SAFETY & EMC Note 3	Safety Standards	UL60950-1; EN60950-1: 2006						
	Withstand Voltage	Primary-Secondary:3.0KV;≤10mA .Primary-PG:1.5KV;≤10mA. Secondary-PG:0.5KVDC;≤10mA.						
	Isolation Resistance	≥100M ohms						
	EMI Conduction&Radiation	Compliance to EN55022(CISPR22)ClassB						
	Harmonic Current	Compliance to EN61000-3-2,17625.1-2003						
	EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11;ENV50204,light industry level,criteriaA						
OTHERS	MTBF (MIL-HDBK-217F)	More than 200,000Hrs (25°C, Full load)						
	Dimension (L*W*H)	89×51×20mm						
	Packing	60PCS/CTN, 7.6KGS, 0.017CBM						
	Cooling method	Cooling by free air convection						
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230Vac input, rated load and 25°C of ambient temperature.</li> <li>2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF &amp; 47uF parallel capacitor.</li> <li>3. The SPS is considered a component which will be installed into final equipment. The equipment must be re-confirmed that it still meets EMC directives.</li> </ol>							

## Mechanical Specification



Item	Connectors	Mating Housing	Contacts
AC IN(CON1)	LANDWIN3961P0300T (Central Pin removed)	LANDWIN 3960S or JST VHR or Molex 51144	LANDWIN 3963T011R or JST SVH-21T-P1.1 Or Molex 50539
DC OUT(CON2)	LANDWIN 3961P0400T		

## Block Diagram



## Derating Curve

