

■ Features :

- Universal AC input / Full range
- Built in active PFC function, PF > 0.90
- U-bracket low profile: 38mm
- User Adjustable output voltage and constant current level
- Optional model for UP150 / UP150T  
 UP150 – Connect type, UP150T – Terminal type
- Protections : Short circuit / Over load / Over voltage / Over temperature
- All using 105°C long life electrolytic capacitors
- Cooling by free air convection
- 100% full load burn-in test.
- No load power consumption < 1W
- 3 years warranty



MODEL		UP-150-12	UP-150-15	UP-150-20	UP-150-24	UP-150-30	UP-150-36	UP-150-48	
Output	DC Voltage Range	12V	15V	20V	24V	30V	36V	48V	
	Rated Current	11A	10A	7.5A	6.3A	5A	4.2A	3.2A	
	Current Range	0 ~ 11A	0 ~ 10A	0 ~ 7.5A	0 ~ 6.3A	0 ~ 5A	0 ~ 4.2A	0 ~ 3.2A	
	Rated Power	132W	150W	150W	151.2W	150W	151.2W	153.6W	
	Ripple & Noise (max.)	Note 2 150 mVp-p	150 mVp-p	150 mVp-p	240 mVp-p	240 mVp-p	240 mVp-p	240 mVp-p	
	Voltage Adj. Range	±10.0%	±10.0%	±10.0%	±10.0%	±10.0%	±10.0%	±10.0%	
	Constant Current adj. Range	Fixed. Can be modified between the range above by factory							
	Voltage Tolerance	Note 3 ±1%	±1%	±1%	±1%	±1%	±1%	±1%	
	Line Regulation	±1%	±1%	±1%	±1%	±1%	±1%	±1%	
	Load Regulation	±2%	±2%	±2%	±2%	±2%	±2%	±2%	
Input	Setup, Rise Time	<2000ms, <30ms / 230Vac at full load							
	Hold Up Time (Typ.)	>32ms / 230VAC, >16ms / 115VAC at full load							
	Voltage Range	Note 4 90 ~ 264VAC	127 ~ 370VDC						
	Frequency Range	47 ~ 63Hz							
	Power Factor(Typ.)	PF ≥ 0.90 / 230VAC, PF ≥ 0.95 / 115VAC at full load							
	Efficiency (Typ.)	88%	88%	89%	90%	90%	90%	90%	
	AC Current (Typ.)	2.0 A / 115VAC		1.0A / 230VAC					
Protection	Inrush Current (Typ.)	Cold start 30A / 115VAC 60A / 230VAC							
	Leakage Current	< 1mA / 240VAC							
	Over Load	Protection type : Output power (VA) >110% ~ 135% is constant current limiting. If in overload mode and VA <110% then triage Hiccup mode , recovers automatically after condition is removed.							
Protection	Over Voltage	115% ~ 150% rated voltage Protection type : Shut down o/p voltage, re-power on to recover 120%~150%							
	Over Temperature	90°C ±5°C (N2) detect on Air Protection type : Shut down o/p voltage. Re-power on to recover							
Environment	Working Temp.	-20°C ~ +70°C (Refer to output load derating curve)							
	Working Humidity	20 ~ 90% RH non-condensing							
	Storage Temp., Humidity	-20 ~ +85°C 10 ~ 95% R.H							
	Temp.Coefficient	±0.05%/°C (0 ~ 50°C)							
	Vibration	10 ~ 500Hz, 2G 10min / 1 cycle, period for 60 min. Each along X,Y,Z axes							
Safety & EMC Note.5	Safety Standards	UL 60950-1, 2 <sup>nd</sup> Edition, TUV EN60950-1 : 2006+A11 Approved							
	Withstand Voltage	I/P - O/P : 3KAVC (4241 DC), I/P - FG : 1.5KVAC(2121 DC) 1 minute							
	Isolation Resistance	I/P - O/P, I/P - FG, O/P - FG: 100M Ω / 500VDC							
	EMI Conduction & Radiation	EN55022 : 2006+A1:2007 Class B							
	Harmonic Current	EN61000-3-2:2006 Class A, EN61000-3-3:2008							
	EMS Immunity	EN61204-3: 2000, EN55024: 1998+A1: 2001+A2: 2003 light industry level, criteria A							
Others	MTBF								
	Dimension (L*W*H)(mm)	198x68x33mm							
	Packing	0.424kg ; 12Pcs/5.1kg							

- Note**
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
  3. Tolerance: includes set up tolerance, line regulation and load regulation.
  4. De-rating may be needed under low input voltages. Please check the de-rating curve for more details.
  5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.



**Mechanical Specification**

Unit : mm[inch]

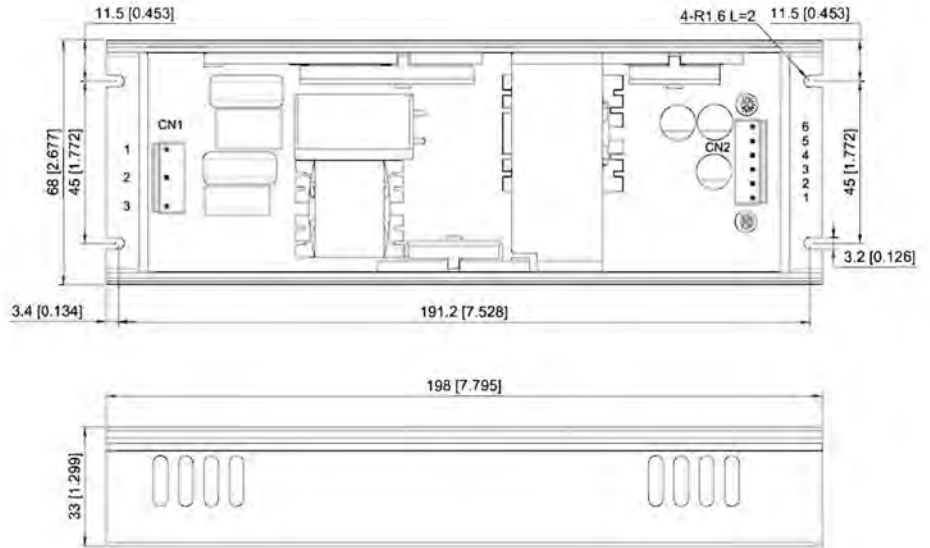
**MODEL : UP150**

AC Input Connector (CN1) :  
JST B5P-VH or equivalent

Pin. No.	Assignment	
1	Ground/Earth	FG
2	N.C	N.C
3	Neutral	AC/N
4	N.C	N.C
5	Live	AC/L

DC Output Connector(CN2 for UP-150):  
JST B6P-VH or equivalent

Pin. No.	Assignment	
1-3	VO-	Return
4-6	VO+	+Main Output



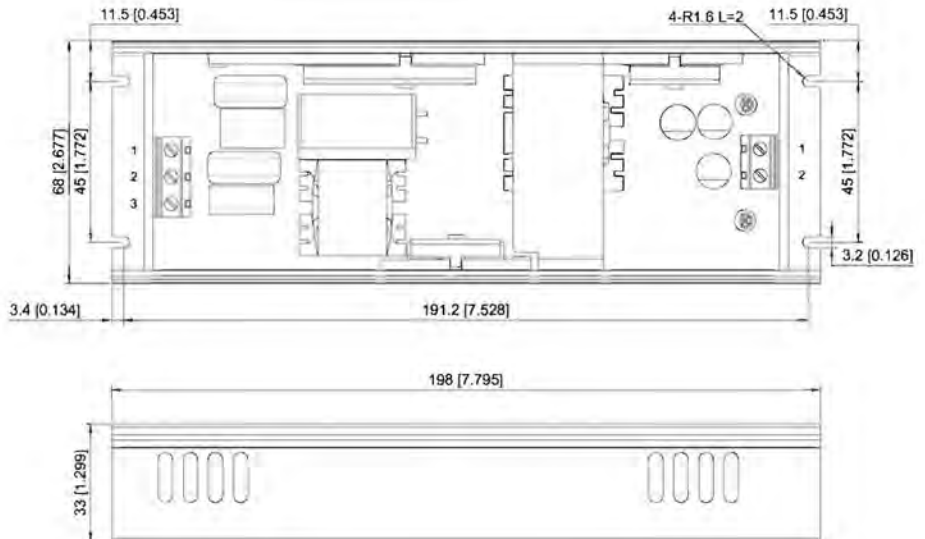
**MODEL : UP150T**

AC Input Terminal (CN1 for UP-150T):  
Pitch 9.5mm:

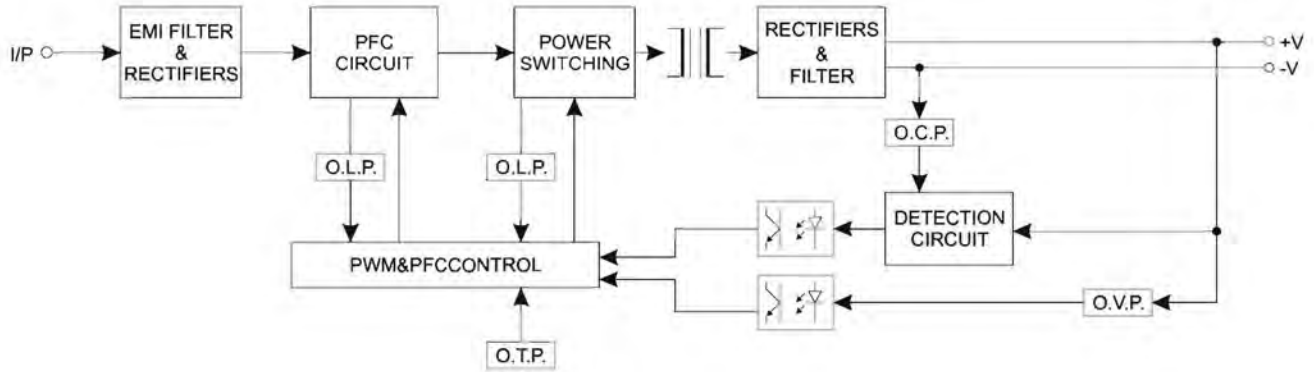
Pin. No.	Assignment	
1	Ground/Earth	FG
2	Neutral	AC/N
3	Live	AC/L

DC Output Terminal (CN2 for UP-150T):  
Pitch 9.5mm:

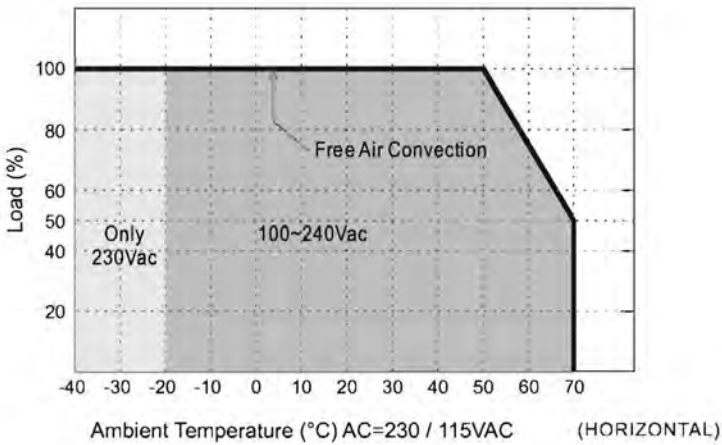
Pin. No.	Assignment	
1	VO(+)	+Main Output
2	VO(-)	Return



■ Block Diagram



■ De-rating Curve



■ Static Characteristics

