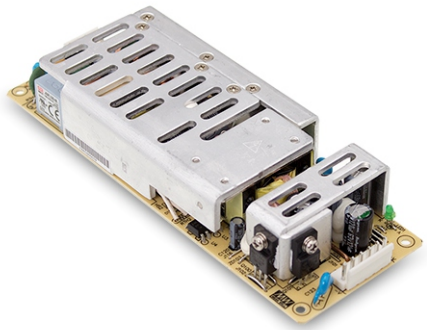
150W Single Output with PFC Function

ASP-150 series



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- High power density 8.4w/in^3
- 100% full load burn-in test
- No load power consumption<1W@240VAC
- ZCS/ZVS technology to reduce power dissipation
- 3 years warranty

SPECIFICATION

MODEL		ASP-150-12	ASP-150-15	ASP-150-20	ASP-150-24	ASP-150-48
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	48V
	RATED CURRENT	11A	9.5A	7.5A	6.3A	3.2A
	CURRENT RANGE	0 ~ 11A	0 ~ 9.5A	0 ~ 7.5A	0 ~ 6.3A	0 ~ 3.2A
	RATED POWER	132W	142.5W	150W	151.2W	153.6W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	180mVp-p	200mVp-p	240mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	11 ~ 13.2V	14 ~ 17V	17 ~ 22V	22 ~ 27V	45.6 ~ 52.8V
		Fixed. Can be modified between the range above by factory				
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	3000ms, 80ms at full load				
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load				
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF≧0.95/230VAC PF≧0.98/115VAC at full load				
	EFFICIENCY (Typ.)	88%	88%	90%	90%	89%
	AC CURRENT (Typ.)	2A/115VAC 1A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 80A/230VAC				
	LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVERLOAD	105 ~ 135% rated output power				
		Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	13.7 ~ 16.2V	17.5 ~ 20.25V	22.5 ~ 28V	27.5 ~ 32.4V	53.3 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover				
	OVER TEMPERATURE	90℃±10℃(RTH2) detect on heatsink of power transistor				
		Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-20 ~ +60℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.05%/℃ (0 ~ 50℃)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, CB(IEC60950-1) approved				
	WITHSTAND VOLTAGE	I/P-O/P:4.25KVDC I/P-FG:2.0KVAC O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH				
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A				
OTHERS	MTBF	149.3Khrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	169*60.7*28.5mm (L*W*H)				
	PACKING	0.32Kg; 48pcs/15.8Kg/0.79CUFT				

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. 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. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on http://www.meanwell.com)
5. Heat Sink HS1,HS3 & HS2,HS3 can not be shorted.

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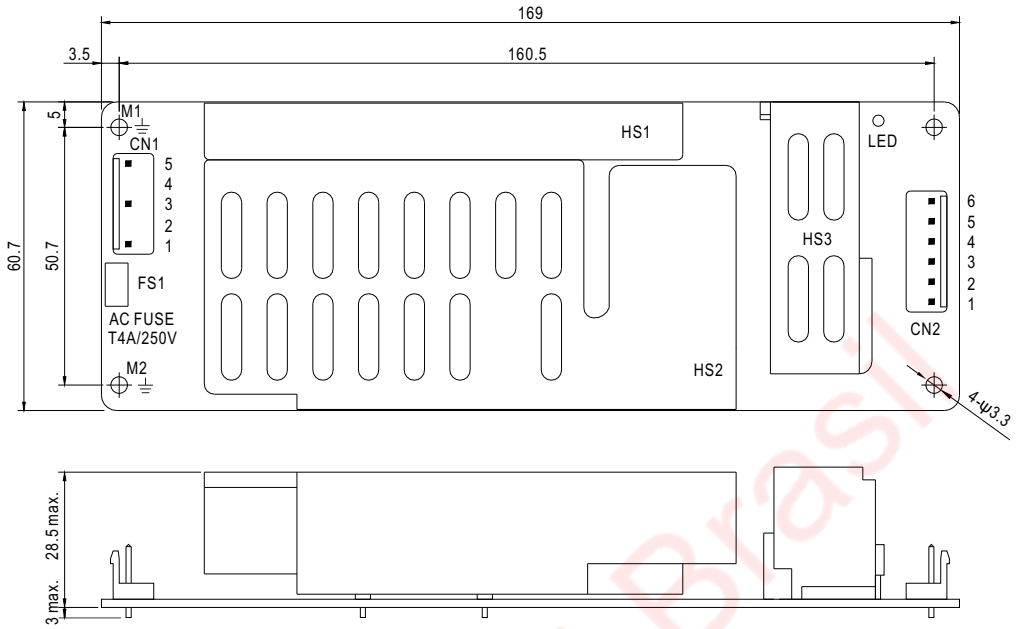
■ Mechanical Specification

Unit:mm



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

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2,4	No Pin		
3	AC/N		
5	FG ⏚		

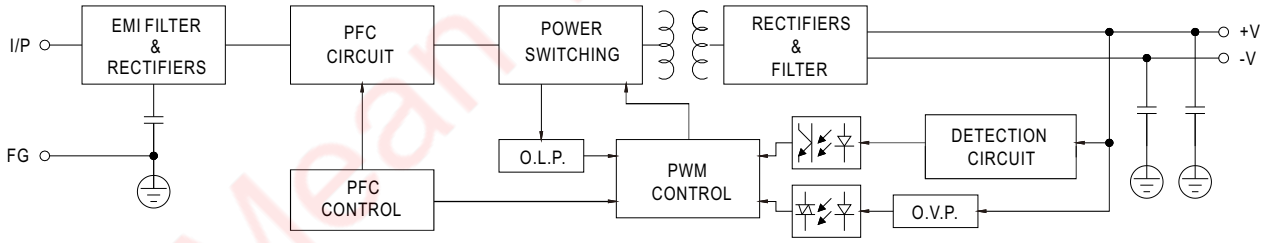
DC Output Connector (CN2) : JST B6P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4,5,6	+V		

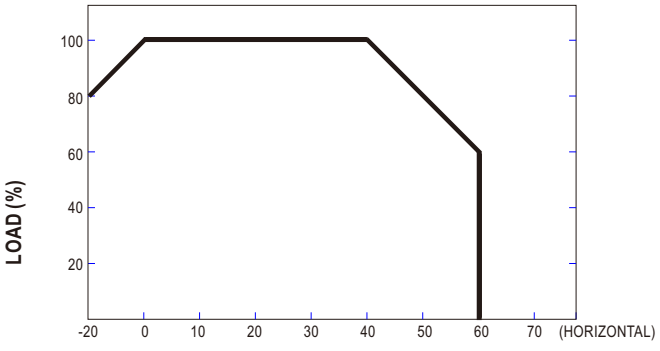
⚠ HS1, HS3 & HS2,HS3 cannot be shorted

⏚ : Grounding Required ;CN1:Pin5,M1 and M2 are Safety ground and should all be grounded.

■ Block Diagram

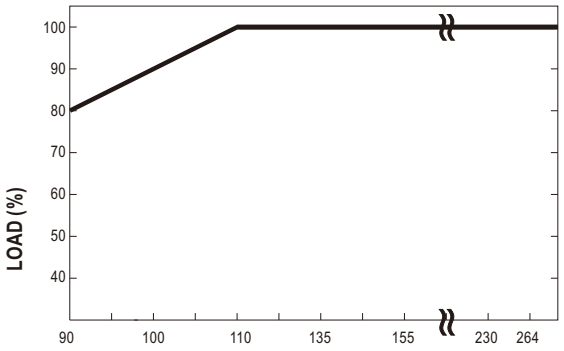


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Output Derating VS Input Voltage



INPUT VOLTAGE (V) 60Hz

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