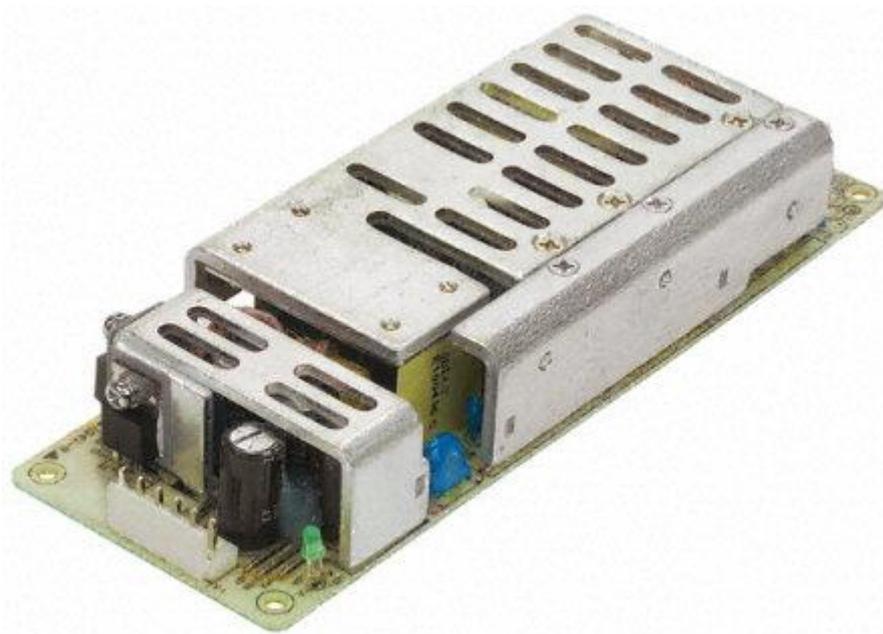


Datasheet

RS 153.6W, 1 Output, Embedded Switch Mode Power Supply (SMPS), 48V dc, 3.2A

RS Stock number 424-308



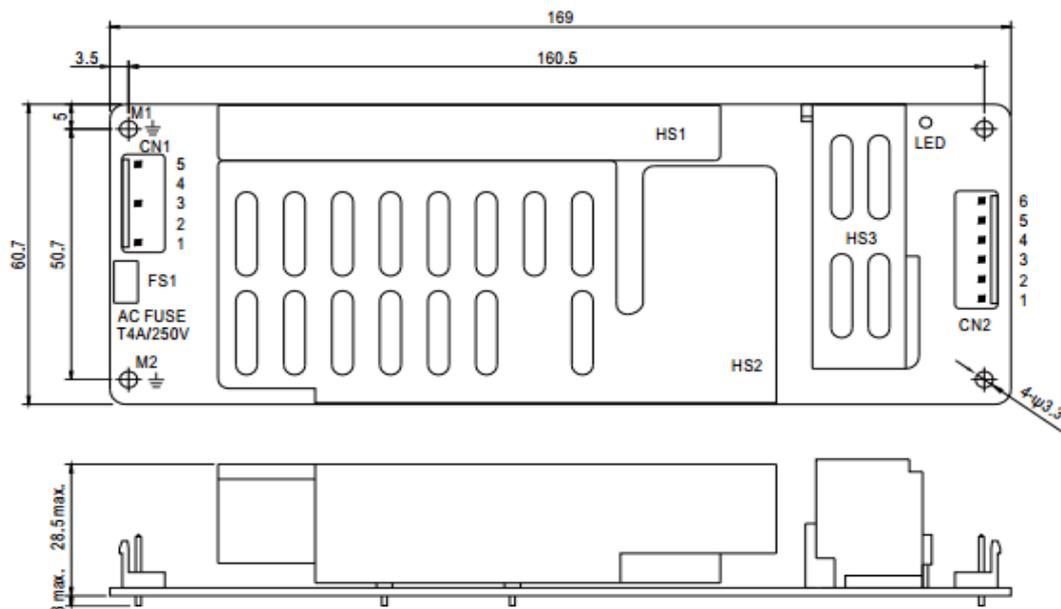
■ Features :

- 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

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
	OVER TEMPERATURE	90°C±10°C(RTH2) detect on heatsink of power transistor Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-20 ~ +60°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 50°C)				
	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°C/ 70% RH				
	EMC EMISSION	Compliance to EN55022 (CISPR22) 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°C)				
	DIMENSION	169*60.7*28.5mm (L*W*H)				
	PACKING	0.32Kg; 48pcs/15.8Kg/0.79CUFT				

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 \perp		

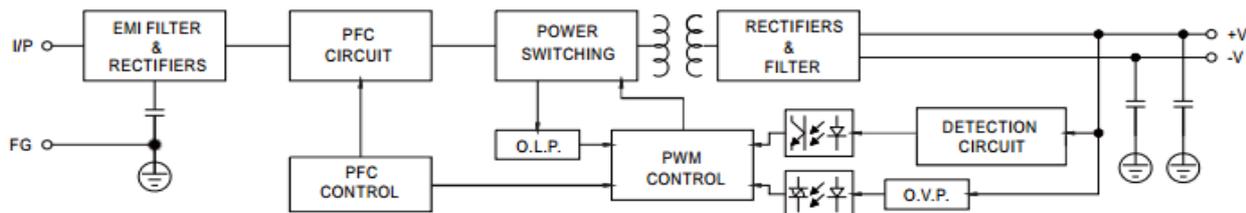
DC Output Connector (CN2) : JST B6P-VH or equivalent

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		

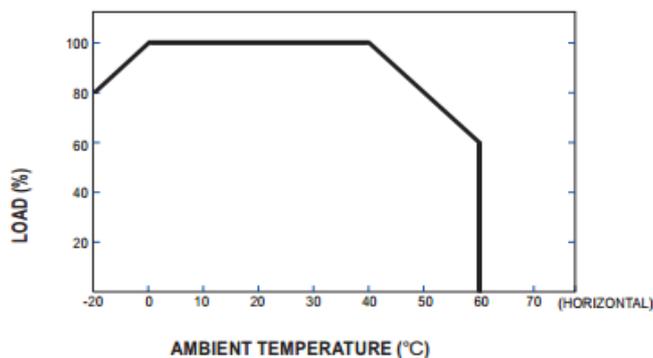
⚠ HS1, HS3 & HS2,HS3 cannot be shorted

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

Block Diagram



Derating Curve



Output Derating VS Input Voltage

