



# 450W Single Output Switching Power Supply

# IRS-450 series



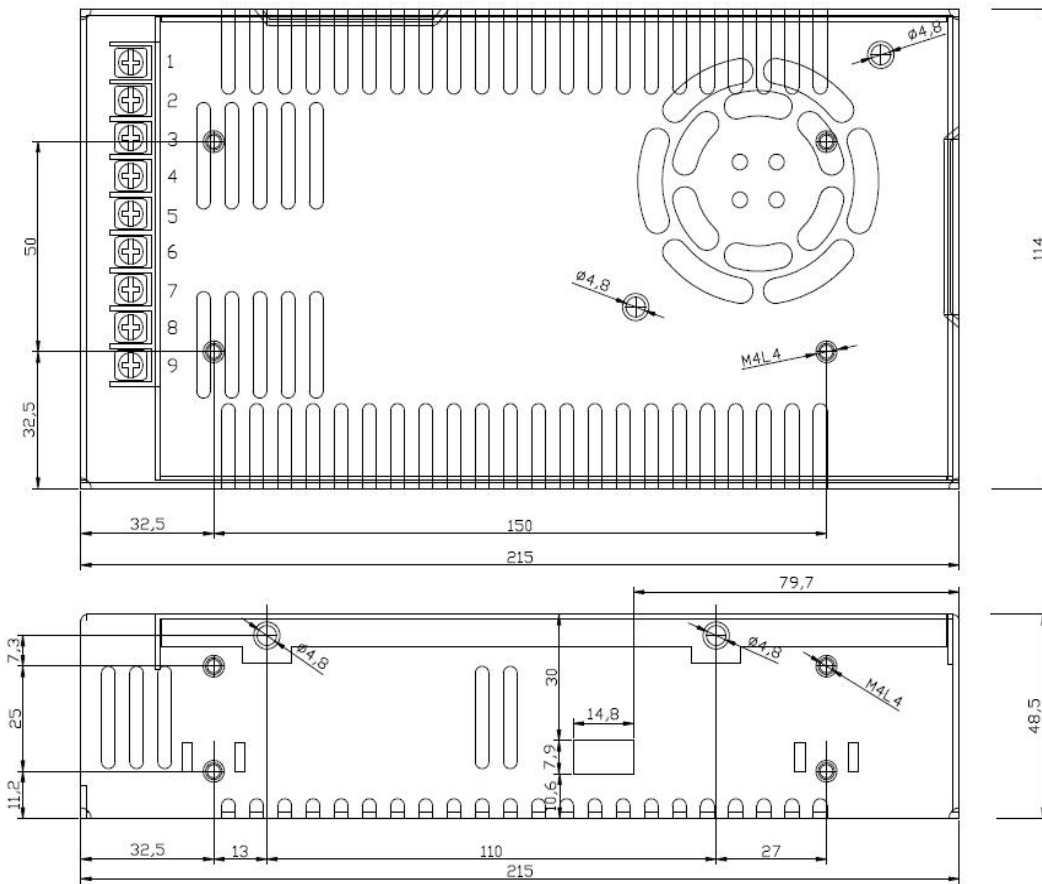
### ◆ Features:

- \* AC input active surge current limiting
- \* AC input range selected by switch
- \* Protections: Short circuit/ Overload/ Over voltage  
Over temperature
- \* Forced air cooling by built-in DC ball bearing fan
- \* LED indicator for power on
- \* UL approved
- \* 2 years warranty

MODEL	IRS-450-3.3	IRS-450-5	IRS-450-12	IRS-450-15	IRS-450-24	IRS-450-36	IRS-450-48	
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	24V	36V	48V
	RATED CURRENT	75A	75A	37.5A	30A	18.8A	12.5A	9.4A
	CURRENT RANGE	0 ~ 75A	0 ~ 75A	0 ~ 37.5A	0 ~ 30A	0~18.8A	0~12.5A	0~9.4A
	RATED POWER	247.5W	375W	450W	450W	451.2W	450W	451.2W
	RIPPLE&NOISE (max.) Note.2	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	2.97V~3.63V	4.5~5.5V	10.8~13.5V	13.5~16.5V	21.6~28.5V	32.4~39.6V	43.2~52.8V
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±1.0%	±1.0%	±1.5%	±1.0%	±1.0%
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
	LOAD REGULATION Note.5	±2.0%	±2.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1500ms, 50ms/230VAC		1500ms,50ms/115VAC at full load				
HOLD UP TIME (Typ.)	16ms/230VAC		12ms/115VAC at full load					
INPUT	VOLTAGE RANGE	90 ~ 132VAC / 180 ~ 264VAC selected by SW				254 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63HZ						
	EFFICIENCY (Typ.)	74.0%	78.0%	83.0%	84.0%	86.0%	86.0%	88.0%
	AC CURRENT (Typ.)	10A/115VAC		6A/230VAC				
	INRUSH CURRENT (Typ.)	35A/115VAC		55A/230VAC				
	LEAKAGE CURRENT	<2.5mA / 240VAC						
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type : Shut down o/p voltage, re-power on to recovery						
	OVER VOLTAGE	3.8~4.6V	5.75~6.75V	13.8~16.2V	18~21V	32~36V	45~52V	57.6~67.2V
		Protection Type: Shut off o/p voltage, claping by zener diode						
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down						
ENVIRONMENT	WORKING TEMP.	-10 ~ +60(Refer to "Derating Curve")						
	WORKING HUMIDITY	20%~ 90%,RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95%RH						
	TEMP. COEFFICIENT	±0.05%/°C (0 ~ 50°C)						
	VIBRATION	10-500HZ,5G 10min./1 cycle, period for 60min. each along X, Y, Z axes						
SAFETY & EMC (Note 6)	SAFETY STANDARDS	UL60950-1, CCC GB4943 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P,I/P-FG:100MOhms/ 500VDC / 25°C/ 70%RH						
OTHERS	MTBF	200Khrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	215*114*48.5mm (L*W*H)						
	PACKING	1.25Kg;12PCS/16Kg/1CUFT						
NOTE	<p>1. All parameter NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000mm (6500ft)</p>							



Dimension

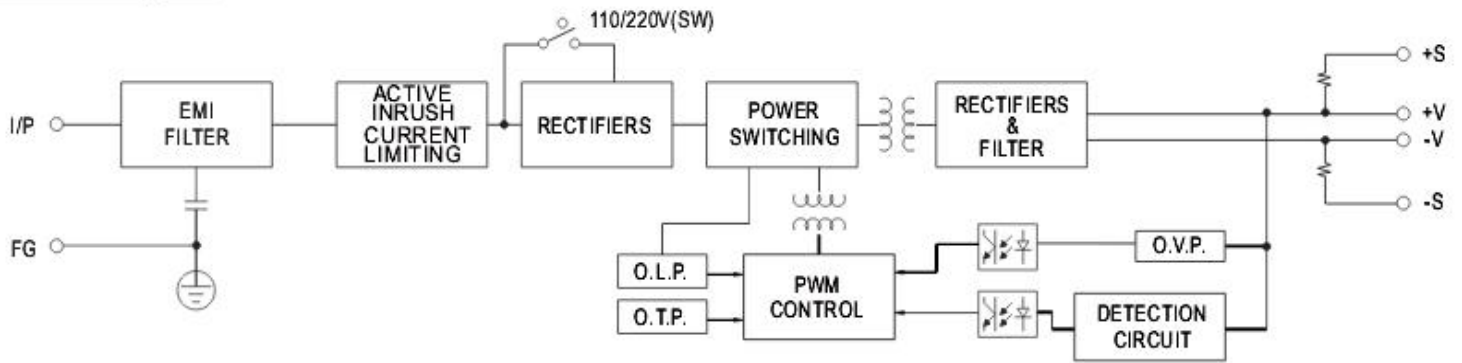


Terminal Pin No. Assignment

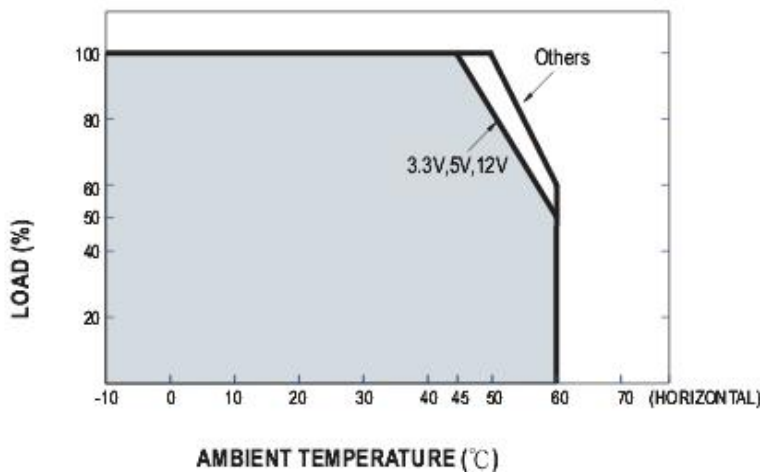
Pin No.	Assignment
1	AC/L
2	AC/N
3	FG
4~6	DC OUTPUT -V
7~9	DC OUTPUT +V

Block Diagram

fosc : 100KHz



Derating Curve



Static Characteristics

