



## 200W Single Output Switching Power Supply

# NES-200 series



### ■ Features :

- AC input range selectable by switch
- Protections: Short circuit / Overload / Over voltage/ Over temperature
- Cooling by free air convection
- Withstand 300vac surge input for 5 second
- Built-in constant current limiting circuit
- 100% full load burn-in test
- LED indicator for power on
- Fixed switching frequency at 90KHz
- Low cost,high reliability
- 2 years warranty

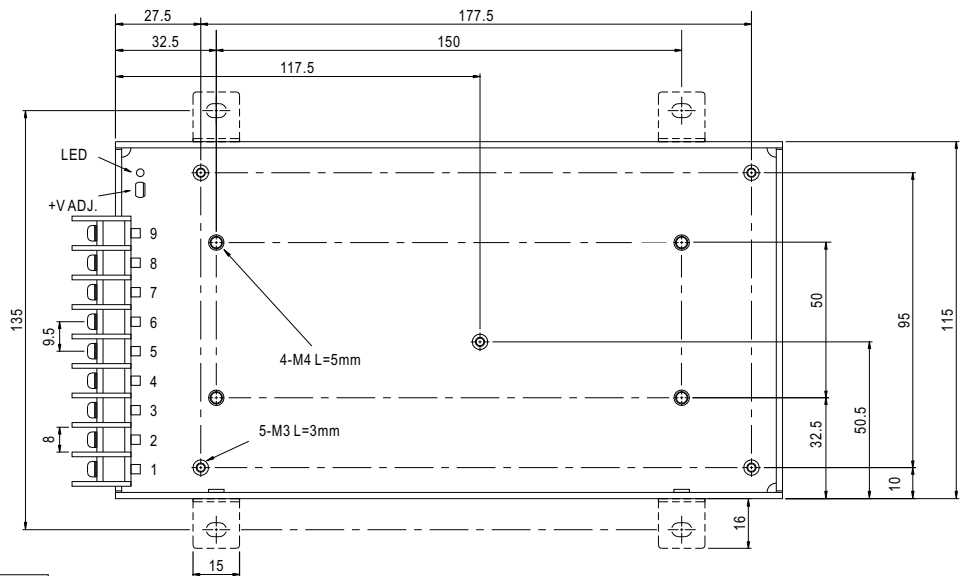
### SPECIFICATION



MODEL	NES-200-3.3	NES-200-5	NES-200-7.5	NES-200-12	NES-200-15	NES-200-24	NES-200-27	NES-200-36	NES-200-48	
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	27V	36V	48V
	RATED CURRENT	40A	40A	27A	17A	14A	8.8A	7.8A	5.9A	4.4A
	CURRENT RANGE	0 ~ 40A	0 ~ 40A	0 ~ 27A	0 ~ 17A	0 ~ 14A	0 ~ 8.8A	0 ~ 7.8A	0 ~ 5.9A	0 ~ 4.4A
	RATED POWER	132W	200W	202.5W	204W	210W	211.2W	210.6W	212.4W	211.2W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	240mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	2.97 ~ 3.7V	4.5 ~ 5.6V	6 ~ 9V	10 ~ 13.5V	13.5 ~ 18V	20 ~ 26.4V	26 ~ 32V	32 ~ 40V	41 ~ 56V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.5%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1000ms, 50ms/230VAC    1000ms,50ms/115VAC at full load								
HOLD UP TIME	20ms/230VAC    16ms/115VAC at full load									
INPUT	VOLTAGE RANGE Note.4	90 ~ 132VAC / 180 ~ 264VAC by switch    254 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	75%	79%	82%	85%	85%	87%	88%	89%	89%
	AC CURRENT	4.5A/115VAC		2.5A/230VAC						
	INRUSH CURRENT (max.)	40A/115VAC		55A/230VAC						
	LEAKAGE CURRENT	<3.5mA / 240VAC								
PROTECTION	OVER LOAD	105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed								
	OVER VOLTAGE	3.8 ~ 4.9V	5.75 ~ 7.0V	9.4 ~ 10.9V	13.8 ~ 16.2V	18 ~ 21V	27.6 ~ 32.4V	33.7 ~ 39.2V	41.4 ~ 46.8V	57.6 ~ 67.2V
	OVER TEMPERATURE	95°C±5°C(3.3V);100°C±5°C(5V); 90°C±5°C(7.5V);85°C±5°C(12~24V);80°C±5°C(27~36V);75°C±5°C(48V) (TSW1) Detect on case Protection type : Shut down O/P voltage, recovers automatically after temperature goes down								
ENVIRONMENT	WORKING TEMP.	-20 ~ +50°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes								
SAFETY	SAFETY STANDARDS	UL60950-1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC			I/P-FG:1.5KVAC		O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH								
OTHERS	MTBF	271.9K hrs min.    MIL-HDBK-217F (25°C)								
	DIMENSION	215*115*50mm (L*W*H)								
	PACKING	0.93Kg; 12pcs/12Kg/0.92CUFT								
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 & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Please connect positive pole of input voltage with mark "N" of terminal block, connect negative pole of input voltage with mark "L" of terminal block, using DC voltage for input voltage.									

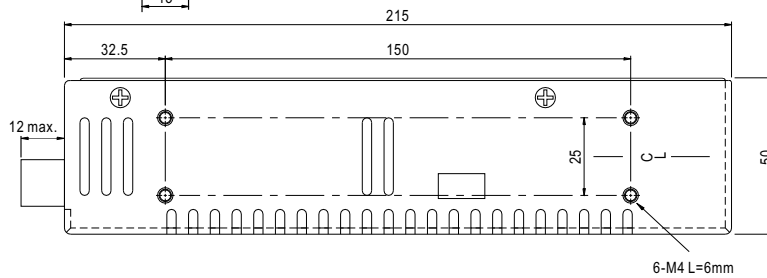
**Mechanical Specification**

Case No. 912E Unit:mm



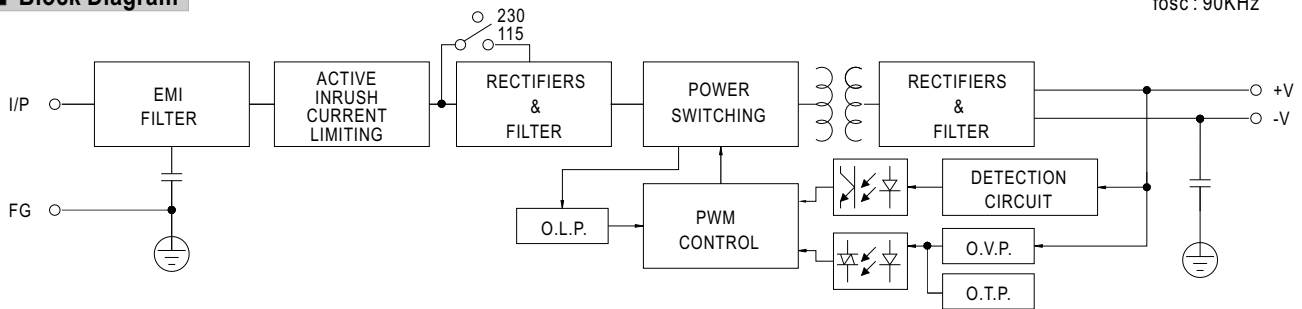
Terminal pin number assignment :

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

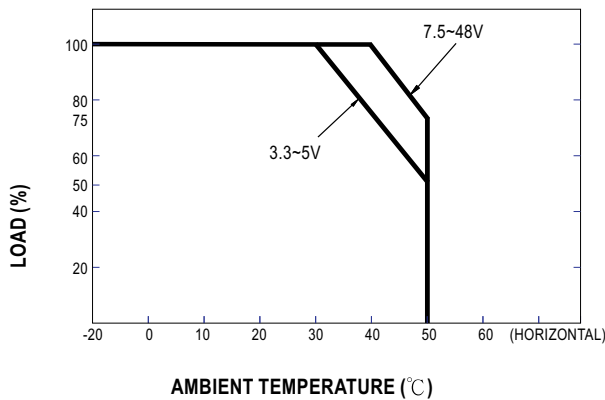


**Block Diagram**

fosc : 90KHz



**Derating Curve**



**Static Characteristics**

