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

User's Manual

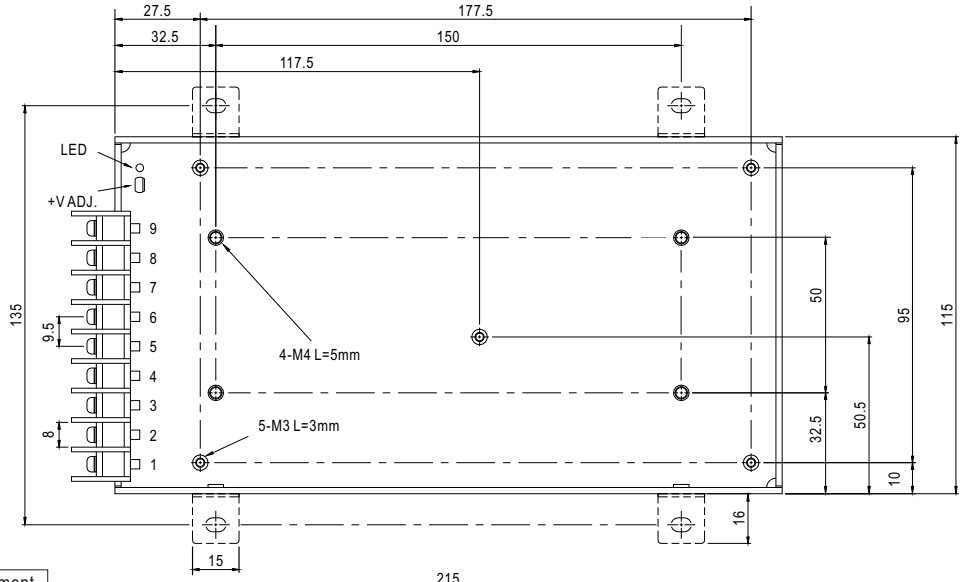
SPECIFICATION

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
		Protection type :Shut down O/P voltage, re-power on to recover								
	OVER TEMPERATURE	95℃±5℃(3.3V);100℃±5℃(5V); 90℃±5℃(7.5V);85℃±5℃(12~24V);80℃±5℃(27~36V);75℃±5℃(48V) (TSW1) Detect on case								
		Protection type : Shut down O/P voltage, recovers automatically after temperature goes down								
ENVIRONMENT	WORKING TEMP.	-20 ~ +50℃ (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)								
	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℃/ 70% RH								
OTHERS	MTBF	271.9K hrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	215*115*50mm (L*W*H)								
	PACKING	0.93Kg; 12pcs/12Kg/0.9CUFT								
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.									

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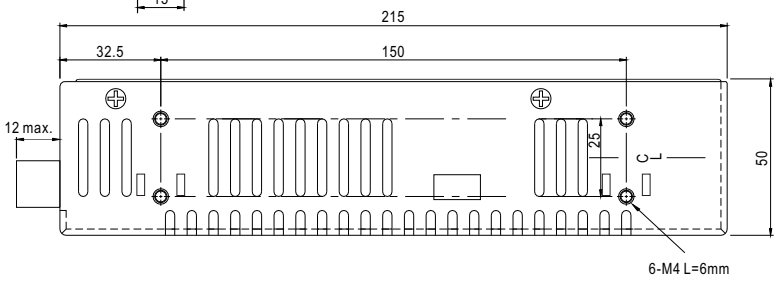
■ Mechanical Specification

Case No. 912E Unit:mm



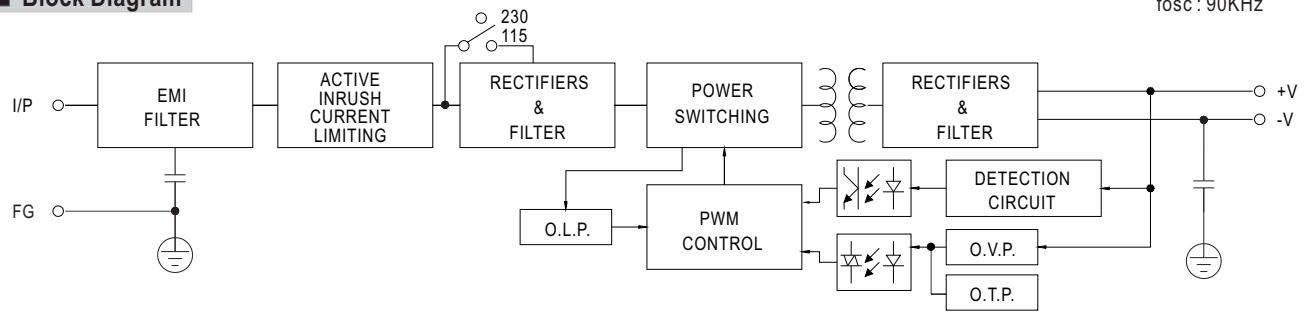
Terminal pin number assignment :

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

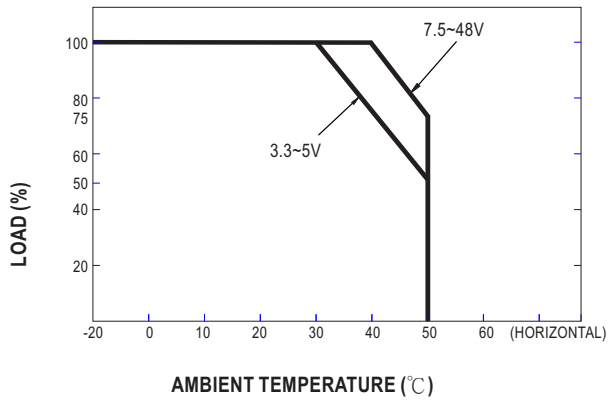


■ Block Diagram

fosc : 90KHz

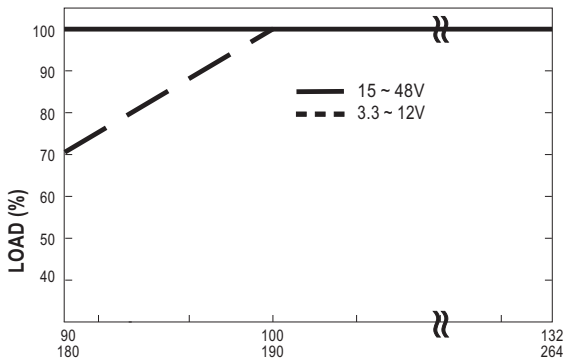


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Static Characteristics



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