



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

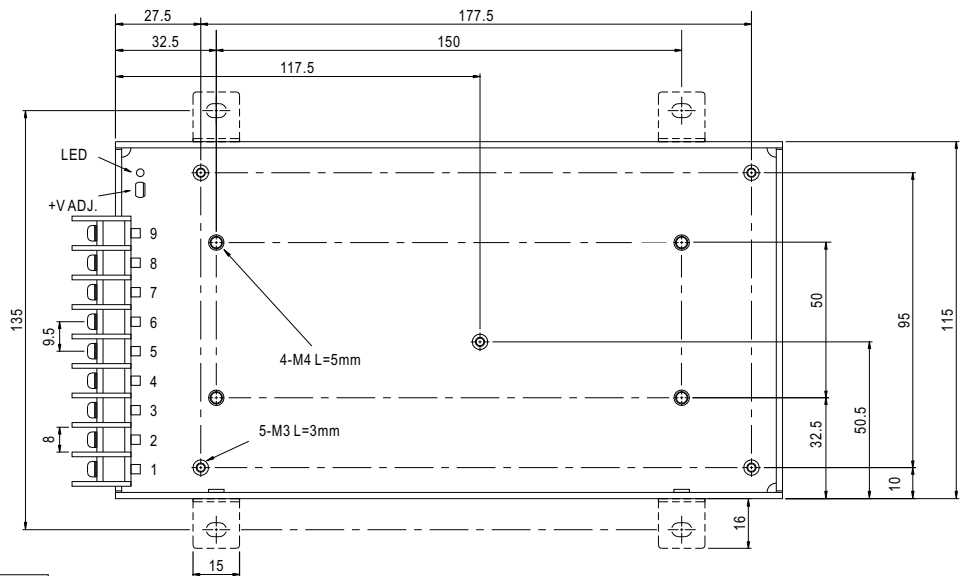
SPECIFICATION



| 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 | 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 ~ 6.75V | 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 & EMC | 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 | | | | | | | | |
| | EMI CONDUCTION & RADIATION | Design refer to EN55022 (CISPR22) Class A | | | | | | | | |
| | EMS IMMUNITY | Design refer to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, light industry level, criteria A | | | | | | | | |
| 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. | | | | | | | | | |

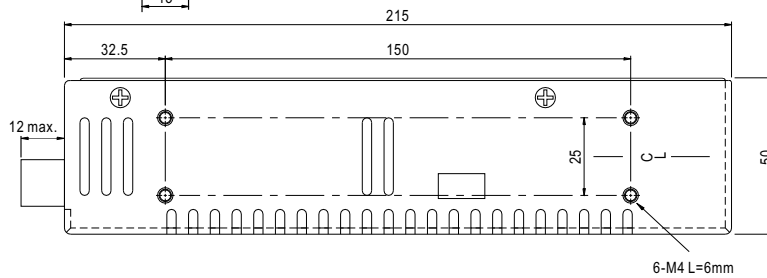
Mechanical Specification

Case No. 912E Unit:mm



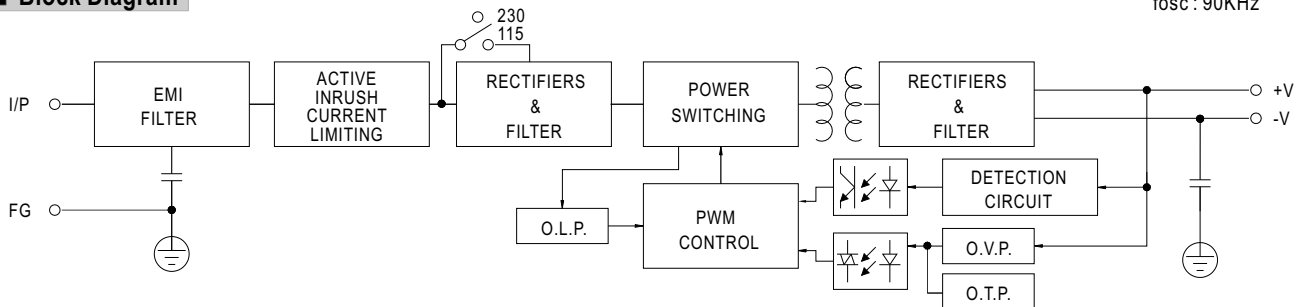
Terminal pin number assignment :

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

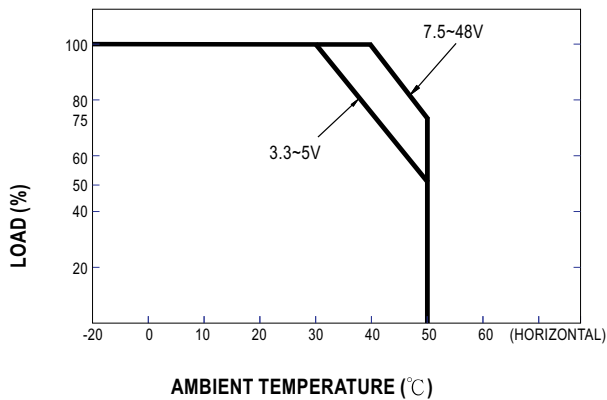


Block Diagram

fosc : 90KHz



Derating Curve



Static Characteristics

