



## 150W Single Output Switching Power Supply

## NES-150 series



## ■ Features :

- AC input range selectable by switch
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- High efficiency, long life and high reliability
- 2 years warranty



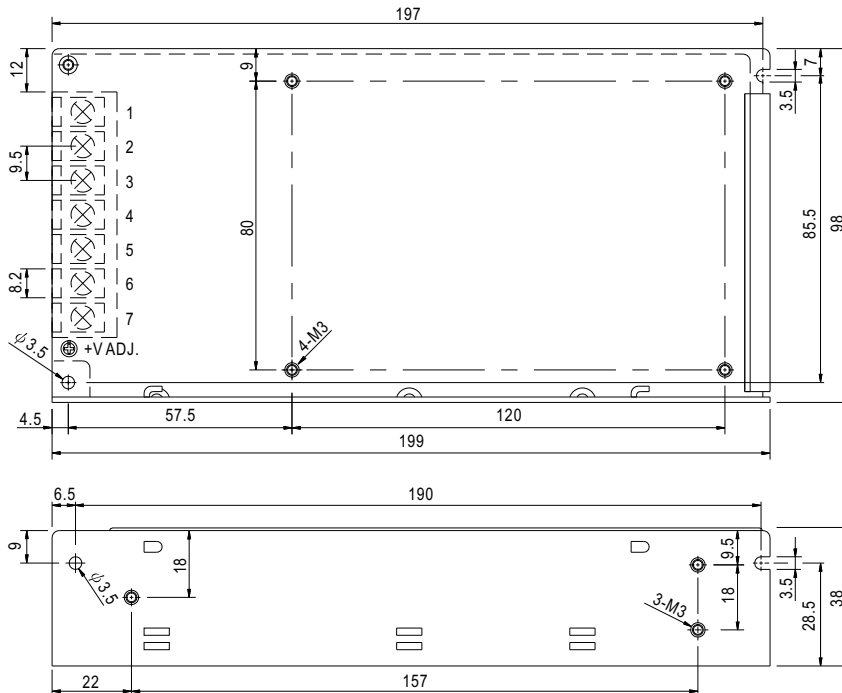
## SPECIFICATION

MODEL		NES-150-3.3	NES-150-5	NES-150-7.5	NES-150-9	NES-150-12	NES-150-15	NES-150-24	NES-150-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	9V	12V	15V	24V	48V
	RATED CURRENT	30A	26A	20A	16.7A	12.5A	10A	6.5A	3.3A
	CURRENT RANGE	0 ~ 30A	0 ~ 26A	0 ~ 20A	0 ~ 16.7A	0 ~ 12.5A	0 ~ 10A	0 ~ 6.5A	0 ~ 3.3A
	RATED POWER	99W	130W	150W	150W	150W	150W	156W	158.4W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	3.2 ~ 3.5V	4.75 ~ 5.5V	7.13 ~ 8.3V	8.55 ~ 9.9V	11.4 ~ 13.5V	14.25 ~ 16.5V	22.8 ~ 27.6V	45.6 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION Note.4	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION Note.5	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME Note.7	800ms, 20ms/230VAC      1200ms, 30ms/115VAC at full load							
HOLD UP TIME (Typ.)	24ms/230VAC      20ms/115VAC at full load								
INPUT	VOLTAGE RANGE	90 ~ 132VAC / 180 ~ 264VAC selected by switch      254 ~ 373VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	73%	78%	80%	83%	83%	83%	86%	86%
	AC CURRENT (Typ.)	3A/115VAC      2A/230VAC							
	INRUSH CURRENT (Typ.)	COLD START 45A/230VAC							
	LEAKAGE CURRENT	<2mA / 240VAC							
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	3.8 ~ 4.65V    5.75 ~ 6.75V    8.6 ~ 10.1V    10.4 ~ 12.2V    13.8 ~ 16.2V    17.25 ~ 20.25V    27.6 ~ 32.4V    55.2 ~ 62.4V Protection type : Hiccup mode, recovers automatically after fault condition is removed							
ENVIRONMENT	WORKING TEMP.	-20 ~ +60℃ (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 6)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 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 70% RH							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B							
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3							
	EMS IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN61000-6-1, heavy industry level, criteria A							
OTHERS	MTBF	433.3Khrs min.    MIL-HDBK-217F (25℃)							
	DIMENSION	199*98*38mm (L*W*H)							
	PACKING	0.7Kg; 30pcs/22Kg/1.24CUFT							
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. 4. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 0% to 100% rated load. 6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time.								



## Mechanical Specification

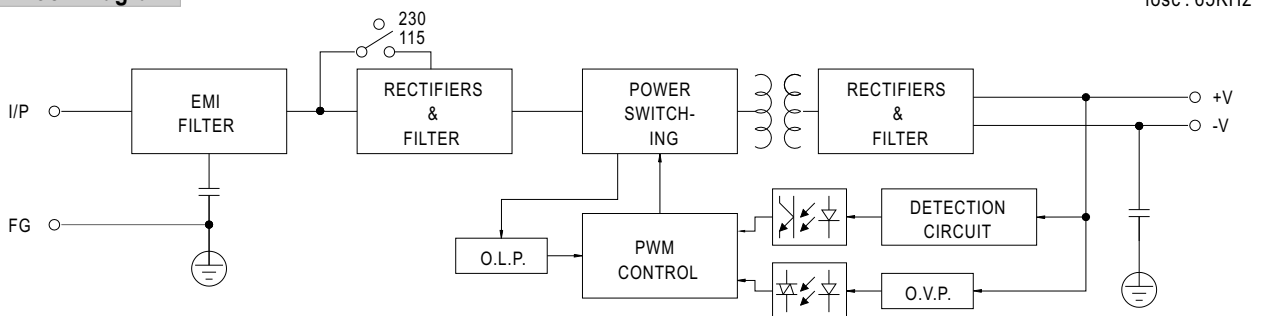
Case No. 902 Unit:mm



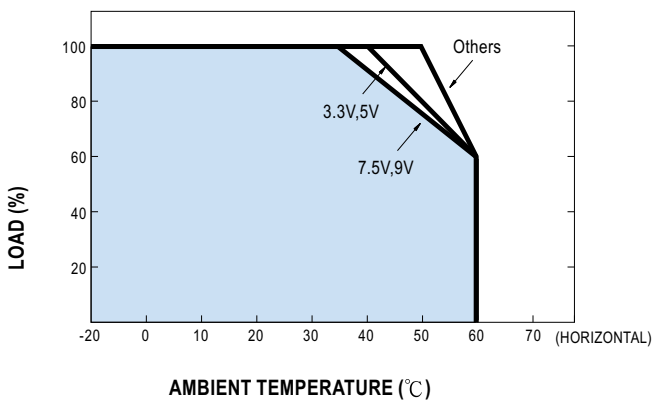
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG $\perp$		

## Block Diagram



## Derating Curve



## Static Characteristics

