

# X0135 Power Supply

NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

## Features:

- Universal AC input/full range
- Protections: Short circuit/overload/over voltage/over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- LED indicator for power on
- 100% full load burn-in test
- Fix switching frequency at 100KHz
- 3 years warranty



## Specification

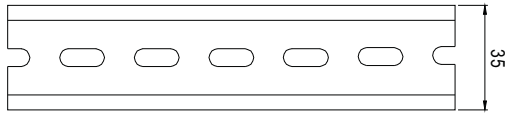
Output	DC Voltage	12V
	Rated Current	3.5A
	Current Range	0 ~ 3.5A
	Rated Power	42W
	Ripple & Noise (max.)	(Note.2) 200mVp-p
	Voltage Adj. Range	10.8 ~ 13.2V
	Voltage Tolerance	(Note.3) ±1.0%
	Line Regulation	±1.0%
	Load Regulation	±1.0%
	Setup, Rise Time	800ms, 60ms/230VAC at full load
	Hold Up Time (Typ.)	60ms/230VAC at full load
Input	Voltage Range	85 ~ 264VAC 120 ~ 370VDC
	Frequency Range	47 ~ 63Hz
	Efficiency (Typ.)	77%
	AC Current (Typ.)	1.5A/115VAC 0.75A/230VAC
	Inrush Current (Typ.)	Cold start 28A/115VAC 56A/230VAC
	Leakage Current	<1mA/240VAC
Protection	Overload	105 ~ 150% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed
	Over Voltage	13.8 ~ 16.2V Protection type: Shut off o/p voltage, clamping by zener diode
	Over Temperature	Tj 135°C typically (U1) detect on heat sink of power transistor Protection type: Shut down o/p voltage, re-power on to recover
Environment	Working Temp.	-10 ~ +50°C (Refer to "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, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes: Mounting: Compliance to IEC60068-2-6
Safety & EMC	Safety Standards	UL508, 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 / 25°C / 70% RH
	EMC Emission	Compliance to EN55011, EN55022 (CISPR22), EN61000-3-2, -3
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), heavy industry level, criteria A
Others	MTBF	364.6K hrs min. MIL-HDBK-217F (25°C)
	Dimension	93 x 78 x 67mm (L x W x H)
	Packing	0.31Kg; 48pcs/17.5Kg/1.3CUFT
Note	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature</p> <p>2. Ripple and noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation</p> <p>4. 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.</p>	

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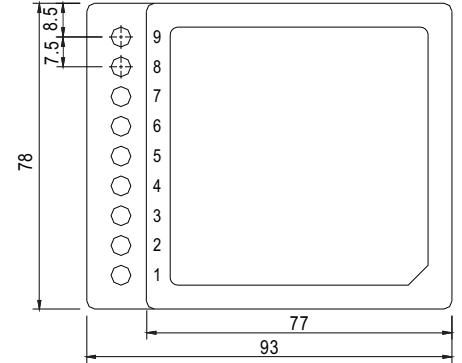
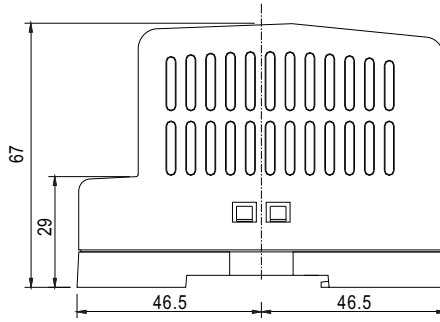
## Mechanical Specification

Terminal Pin No. Assignment

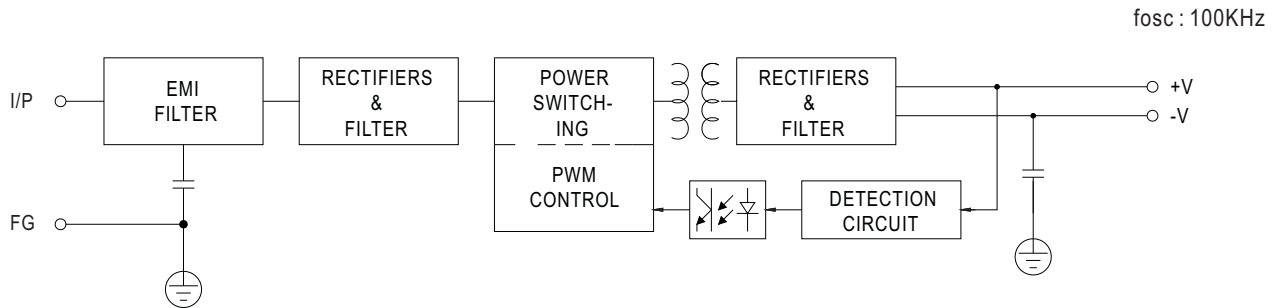
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5, 7	DC OUTPUT +V
2	AC/N	8	LED
3	FG	9	+V ADJ.
4, 5	DC OUTPUT -V		



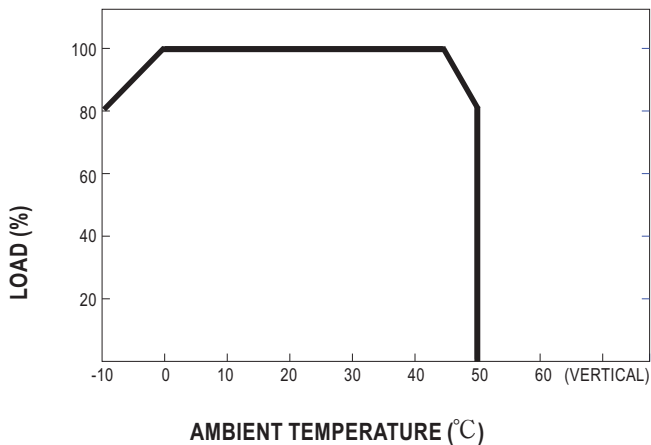
Install DIN rail TS35/7.5 or TS35/15



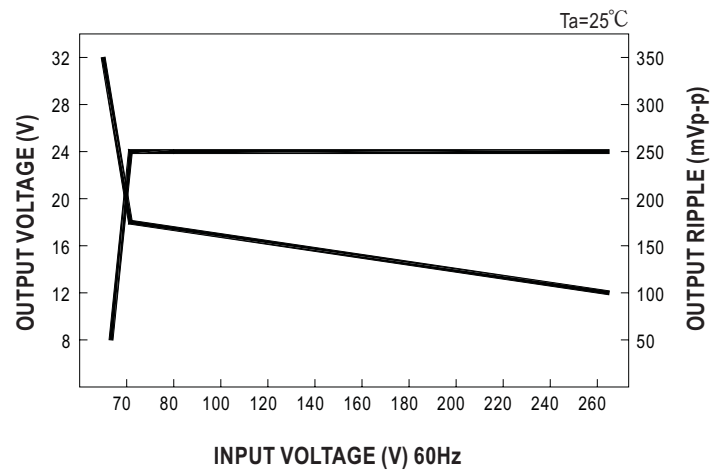
## Block Diagram



## Derating Curve



## Status Characteristics (24V)



**NEPEAN**  
Power

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