

Power Supply - X0398

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.

X0398 is one economical slim Din rail power supply series, providing up to 156W at 230VAC input. This series is adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 40mm in width, which allows space saving inside the cabinets. The entire series adopts the full range AC input from 90VAC to 264VAC and conforms to EN61000-3-2 ($\leq 80\%$ load). X0398 is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 87%, the entire series can operate at the ambient temperature between -20°C and 60°C under air convection. It is equipped with constant current mode for over-load protection, fitting various inductive or capacitive applications. The complete protection functions and relevant certificates for industrial control apparatus make X0398 a very competitive power supply solution for industrial applications.

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
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test
- 2 years warranty

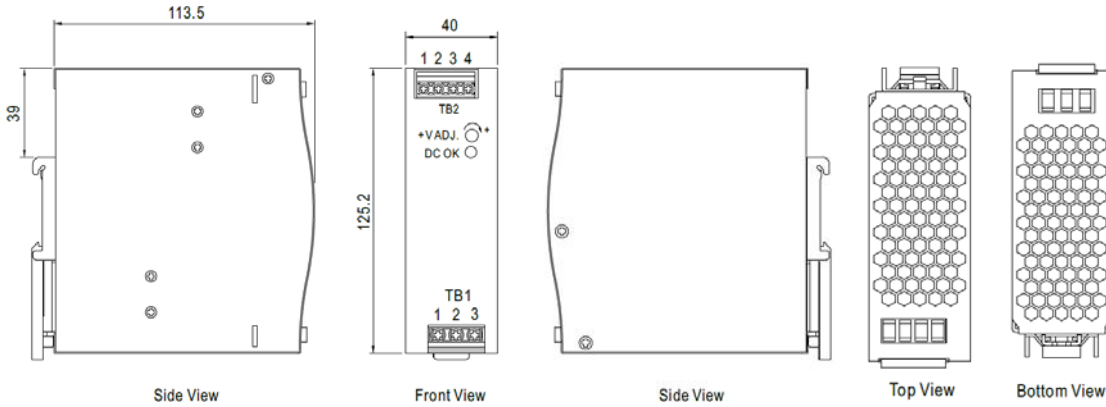


Specification

Output	DC Voltage	24V		
	Rated Current	6.5A / 230VAC	5.2A / 115VAC	
	Current Range	0 ~ 6.5A / 230VAC	0 ~ 5.2A / 115VAC	
	Rated Power	156W / 230VAC	125W / 115VAC	
	Ripple & Noise (max.) (Note.2)	150mVp-p		
	Voltage Adj. Range	24 ~ 28V		
	Voltage Tolerance (Note.3)	$\pm 1.0\%$		
	Line Regulation	$\pm 0.5\%$		
	Load Regulation	$\pm 1.0\%$		
	Setup, Rise Time	1500ms, 60ms/230VAC	3000ms, 60ms/115VAC at full load	
Hold Up Time (Typ.)	16ms/230VAC	10ms/115VAC at full load		
Input	Voltage Range (Note.6)	90 ~ 264VAC	120 ~ 370VDC [DC input operation possible by connecting AC/L(+0, AC/N(-))]	
	Frequency Range	47 ~ 63Hz		
	Efficiency (Typ.)	87%		
	AC Current (Typ.)	2.6A/115VAC	1.7A/230VAC	
	Inrush Current (Typ.)	20A/115VAC	35A/230VAC	
	Leakage Current	<1mA/240VAC		
Protection	Overload (Note.7)	105 ~ 130% rated output power		
		Protection type: Constant current limiting, recovers automatically after fault condition is removed / 230VAC		
	Over Voltage	105 ~ 150% rated output power		
		Protection type: Constant current limiting, recovers automatically after fault condition is removed / 115VAC		
Over Temperature	29 ~ 33V			
	Protection type: Shut off o/p voltage, re-power on to recover			
Environment	Working Temp.	$-20 \sim +60^{\circ}\text{C}$ (Refer to "Derating Curve")		
	Working Humidity	20 ~ 90% RH non-condensing		
	Storage Temp., Humidity	$-40 \sim +85^{\circ}\text{C}$, 10 ~ 95% RH		
	Temp. Coefficient	$\pm 0.03\%/^{\circ}\text{C}$ (0 ~ 50°C)		
	Vibration	Component: 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes Mounting: Compliance to IEX60068-2-6		
Safety & EMC (Note.4)	Safety Standards	UL508, TUV EN60950-1 approved;(meet EN60204-1)		
	Withstand Voltage	I/P-O/P:3KVAC	I/P-FG:2KVAC 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 EN55022 (CISPR22) Class A, EN61000-3-2, Class A ($\leq 80\%$ Load), EN61000-3-3		
Others	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), heavy industry level, criteria A		
	MTBF	472.5K hrs min.	MIL-HDBK-217F (25°C)	
	Dimension	40 x 125.2 x 113.5mm (W x H x D)		
Note	Packing	0.6Kg; 20pcs/13Kg/1.6CUFT		
		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature 2. Ripple and 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. 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. 5. Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended. 6. Derating may be needed under low input voltage. Please check the derating curve for more details. 7. Hiccup mode at 90 ~ 100VAC, recovers automatically after fault condition is removed.		

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Mechanical Specification



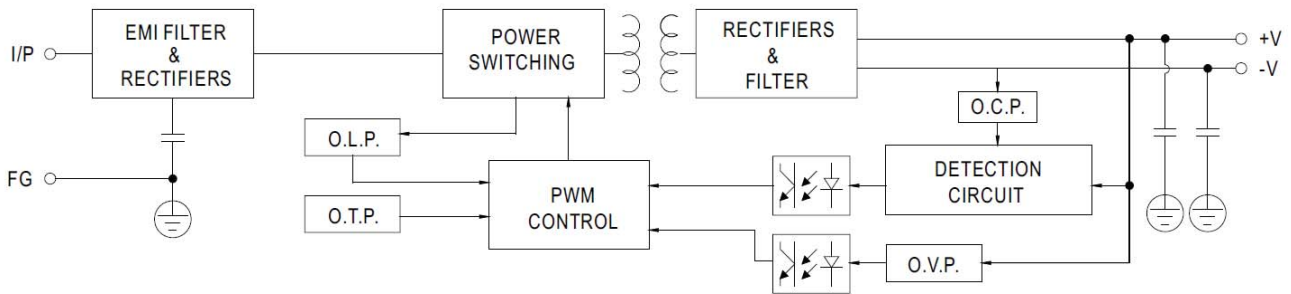
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG \oplus
2	AC/N or DC-
3	AC/L or DC+

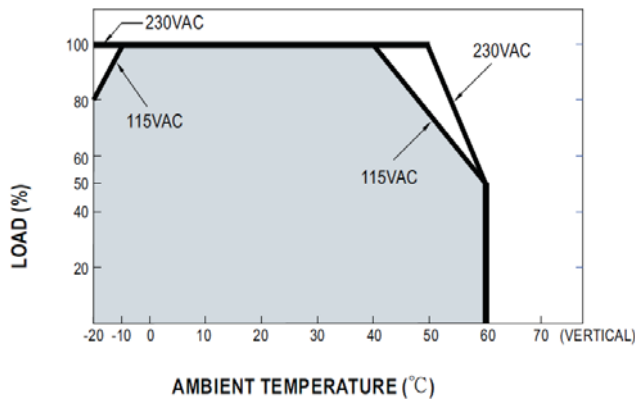
Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1, 2	DC Output -V
3, 4	DC Output +V

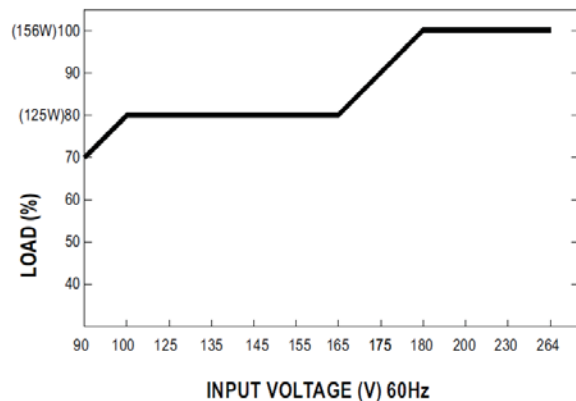
Block Diagram



Derating Curve



Static Characteristics



Installation Instruction

This series fits DIN-RAIL TS35/7.5 or TS35/15. For reference only - not included with unit

