

X0401 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.



X0401 is one economical slim 240W Din rail power supply series, adapt to be installed on TS-35/7.5 or TS-35/15 mounting rails. The body is designed 63mm 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.

X0401 is designed with metal housing that enhances the unit's power dissipation. With working efficiency up to 90%, the entire series can operate at the ambient temperature between -20°C and 70°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 (UL508, TUV EN60950-1, etc.) make X0401 a very competitive power supply solution for industrial applications.

Features

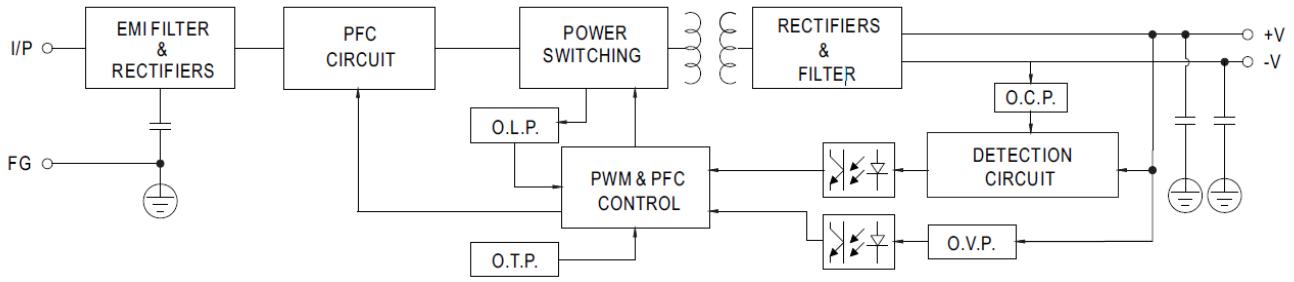
- Universal AC input/full range
- Built-in active PFC function
- Protections: Short circuit/overload/over voltage/over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test

Specification

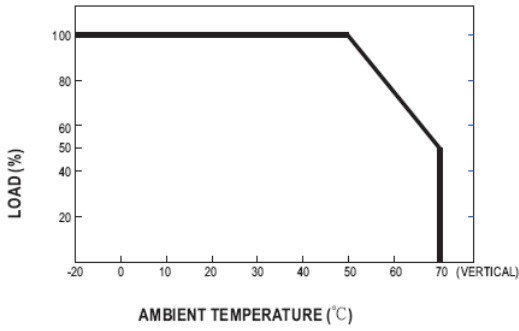
Output	DC Voltage	24V			
	Rated Current	10A			
	Current Range	0 ~ 10A			
	Rated Power	240W			
	Ripple & Noise (max.)	(Note.2)	150mVp-p		
	Voltage Adj. Range	24 ~ 28V			
	Voltage Tolerance	(Note.3)	±1.0%		
	Line Regulation	±0.5%			
	Load Regulation	±1.0%			
	Setup, Rise Time	1500ms, 100ms/230VAC	3000ms, 100ms/115VAC at full load		
Input	Hold Up Time (Typ.)	28ms/230VAC	22ms/115VAC at full load		
	Voltage Range	(Note.6)	90 ~ 264VAC	127 ~ 370VDC	
	Frequency Range	47 ~ 63Hz			
	Power Factor (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC at full load			
	Efficiency (Typ.)	88.5%			
	AC Current (Typ.)	2.5A/115VAC	1.3A/230VAC		
	Inrush Current (Typ.)	20A/115VAC	35A/230VAC		
	Leakage Current	<1mA/240VAC			
	Protection	Overload	105 ~ 130% rated output power		
			Protection type: Constant current limiting, recovers automatically after fault condition is removed		
Over Voltage		29 ~ 33V			
		Protection type: Shut down o/p voltage, re-power on to recover			
Environment	Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down			
	Working Temp.	-20 ~ +70°C (Refer to "Derating Curve")			
	Working Humidity	20 ~ 95% RH non-condensing			
	Storage Temp., Humidity	-40 ~ +85°C, 10 ~ 95% RH			
	Temp. Coefficient	±0.03%/°C (0 ~ 50°C)			
	Vibration	Component: 10 ~ 500Hz, 2G 10min./1 cycle, 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: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			
	(Note.4) EMC Emission	Compliance to EN55022 (CISPR22), EN61204-3 Class B, EN61000-3-2,-3			
Others	EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A			
	MTBF	230.2K hrs min.	MIL-HDBK-217F (25°C)		
	Dimension	63 x 125.2 x 113.5mm (W x H x D)			
	Packing	1Kg; 12pcs/13Kg/1.1CUFT			
Note	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C ambient temperature.				
	2. Ripple and noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf & 47µf parallel capacitor.				
	3. Tolerance: includes set up tolerance, line regulation and load regulation.				
	4. Derating may be needed under low input voltage. Please check the derating curve for more details.				
	5. Installation clearances: 40mm on top, 20mm on 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. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that is still meets EMC directives.				
	7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).				

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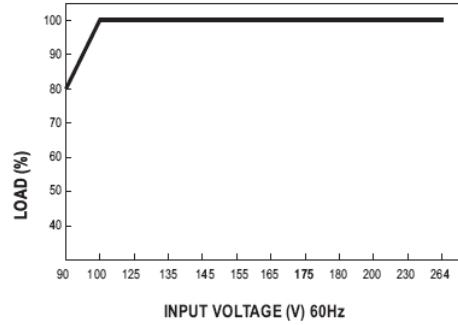
Block Diagram



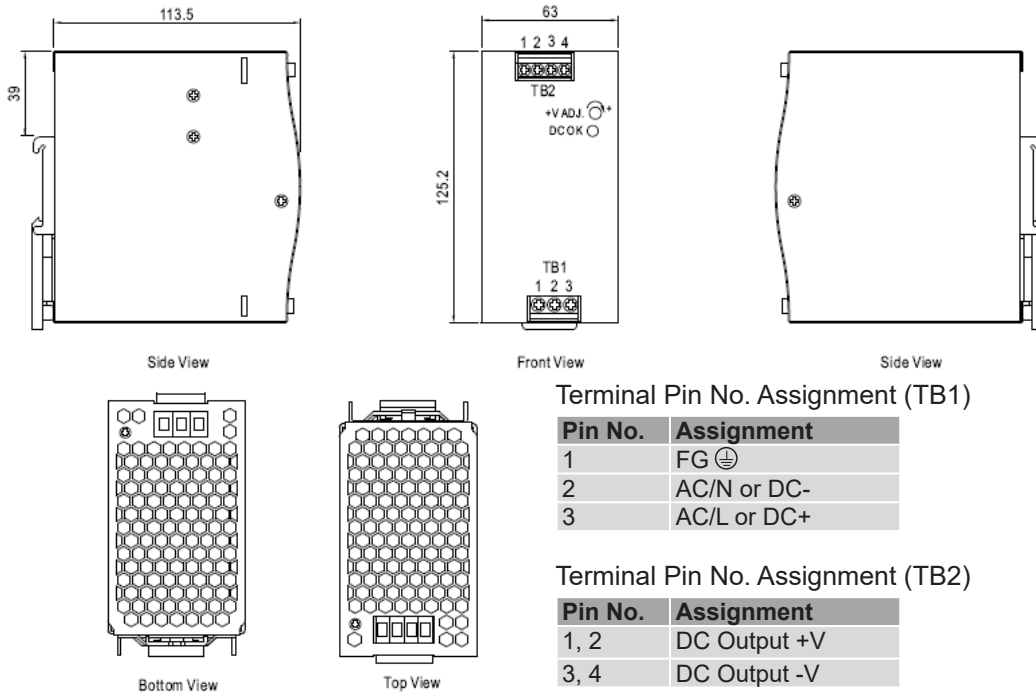
Derating Curve



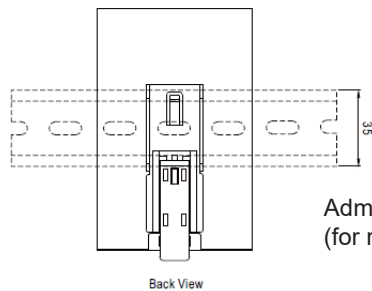
Output Derating VS Input Voltage



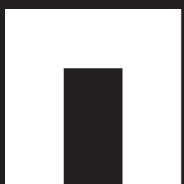
Mechanical Specification



Installation Instruction



Admissible Din-Rail: TS35/7.5 or TS35/15
(for reference only. Not included with unit)



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