



110/220V  
SWITCH SELECT

# PS-120 Series Specifications



## Features:

- Universal AC input / full range
- Protections: Short Circuit / Over load / Overvoltage/Over temperature
- Cooling by free air convection
- DIN rail mountable TS-35/ 7.5 or 1.5
- UL 508 (industrial control equipment) approved
- LED indicator for power on
- 100% full load burn-in test
- Fix switching frequency at 50KHz
- 3 year warranty

## OUTPUT

Cat. No.	PS-12012	PS-12024	PS-12048
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DC VOLTAGE	12V	24V	48V
RATED CURRENT	10A	5A	2.5A
CURRENT RANGE	0 ~ 10A	0 ~ 5A	0 ~ 2.5A
RATED POWER	120W	120W	120W
RIPPLE & NOISE (max)	80mVp-p	80mVp-p	100mVp-p
VOLTAGE ADJ. RANGE	12 ~ 14V	24 ~ 28V	48 ~ 53V
VOLTAGE TOLERANCE	±2.0%	±1.0%	±1.0%
LINE REGULATION	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±1.0%	±1.0%
SETUP, RISE TIME	500ms, 70ms / 230VAC	500ms, 70ms / 115VAC at full load	
HOLD UP TIME (Typ.)	36ms / 230VAC	32ms / 115VAC at full load	

Ripple & noise are measured at 20MHz of bandwidth by using a 12 twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.

Tolerance: includes set up tolerance, line regulation and load regulation.

## INPUT

VOLTAGE RANGE	88 ~ 132VAC / 176 ~ 264VAC by switch		120 ~ 185VDC / 248 ~ 370VDC
FREQUENCY RANGE	47 ~ 63Hz		
EFFICIENCY (Typ.)	80%	84%	85%
AC CURRENT (max.)	2.6 A / 115VAC	1.6A / 230VAC	
INRUSH CURRENT (Typ.)	COLD START	20A / 115VAC	40A / 230VAC
LEAKAGE CURRENT	≤ 3.5mA / 240VAC		

## PROTECTION

OVERLOAD	105 ~ 150% rated output power		
OVERVOLTAGE	15 ~ 16.5V	29 ~ 33V	58 ~ 65V
OVERTEMPERATURE	85°C ± 5°C (TSW1)	90°C ± 5°C (TSW1)	90°C ± 5°C (TSW1)

Protection type: Constant current limiting, recovers automatically after fault condition is removed

Protection type: Shut down overvoltage, re-power on to recover

Protection type: Shut down overvoltage, recovers automatically after temperature goes down

## ENVIRONMENT

WORKING TEMP.	-10 ~ +60°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, 2G 10min./1cycle, 60 min. each long X,Y, Z axes		
MOUNTING	Compliance to IEC60068-2-6		

## SAFETY & EMC

SAFETY STANDARDS	UL508 UL60950-1 EN60950-1 compliant		
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		
EMI CONDUCTION & RADIATION	Compliance to EN55011; 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; EN61000-6-2; (EN50082-2); heavy industry level; criteria A		

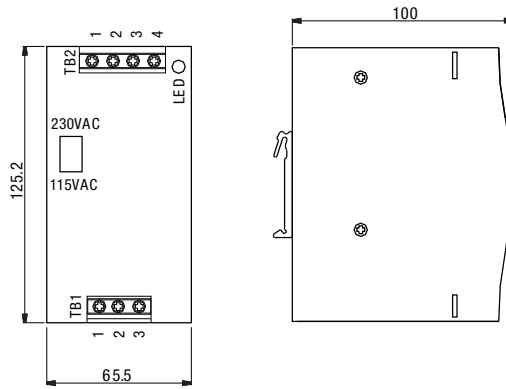
The power supply is considered a component which will installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

## OTHERS

MTBF	136.8K hrs min. MIL-HDBK-217K (25°C)		
DIMENSION	65.5x125.2x100mm (WxHxD)		
PACKING	0.79Kg; 20pcs / 16.5Kg / 1.29CUFT		

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.

## Mechanical Specification



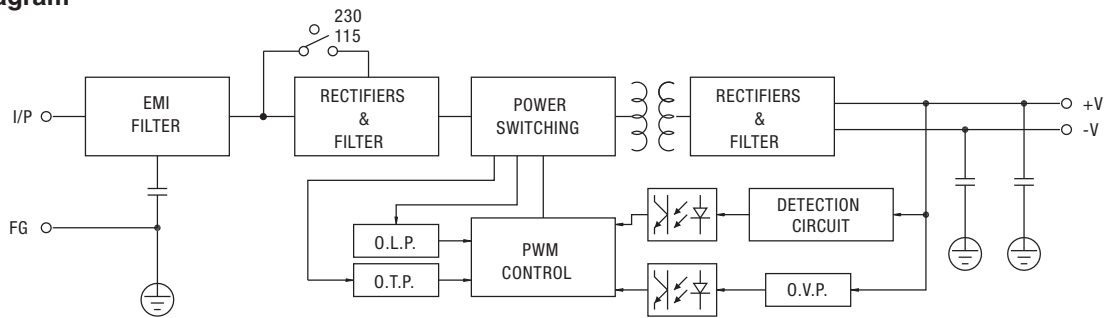
Terminal Pin. No Assignment (TB1)

Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

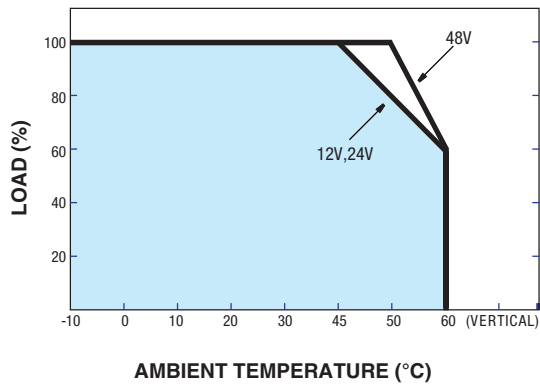
Terminal Pin. No Assignment (TB2)

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

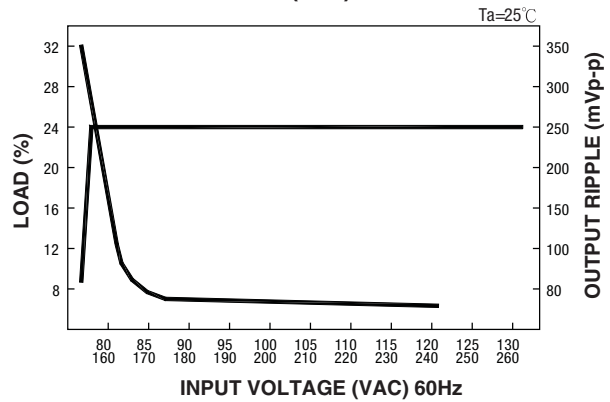
## Block Diagram



## Derating Curve



## Static Characteristics (24V)



Note: All dimensions are in millimeters, to convert to inches multiply by 0.03937.