



PS-45 Series Specifications



Features:

- Universal AC input / full range
- Protections: Short Circuit / Overload / Over Voltage/ Overtemperature
- Cooling by free air convection
- DIN rail mountable
- UL508 approved
- LED indicator for power on
- Fix switching frequency at 100kHz
- 100% full load burn-in test
- 3 year warranty

OUTPUT

Cat. No.	PS-4505	PS-4512	PS-4515	PS-4524
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DC VOLTAGE	5V	12V	15V	24V
RATED CURRENT	5A	3.5A	2.8A	2A
CURRENT RANGE	0 ~ 5A	0 ~ 3.5A	0 ~ 2.8A	0 ~ 2A
RATED POWER	25W	42W	42W	48W
RIPPLE & NOISE (max)	100mVp-p	200mVp-p	240mVp-p	480mVp-p

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

VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V
VOLTAGE TOLERANCE	±2.0%	±1.0%	±1.0%	±1.0%

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

LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
LOAD REGULATION	±1.0%	±1.0%	±1.0%	±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.)	72%	77%	77%	80%
AC CURRENT (max.)	1.5A / 115VAC	0.75A / 230VAC		
INRUSH CURRENT (Typ.)	COLD START 28A / 115VAC; 56A / 230VAC			
LEAKAGE CURRENT	≤1mA / 240VAC			

PROTECTION

OVERLOAD	105 ~ 160% rated output power Protection type: Constant current limiting recovers automatically after fault condition is removed			
OVERVOLTAGE	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V
OVERTEMPERATURE	Tj 135°C typically (U1) detect on heat sink of power transistor Protection type: Shut down overvoltage, clamping by zener diode Protection type: Shut down overvoltage, re-power on to recover			

ENVIRONMENT

WORKING TEMPERATURE	-10 ~ +50°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	Component: 10 ~ 500Hz, 2G 10min. / 1cycle, 60 min. each long X,Y, Z axes
MOUNTING	Compliance to IEC60068-2-6

SAFETY & EMC

SAFETY STANDARDS	UL508 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 (25°C; 70% RH)
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; 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

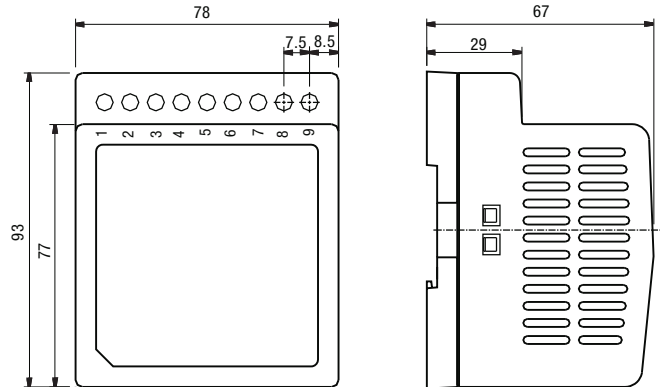
MTBF	364.6K hrs min. MIL-HDBK-217K (25°C)
DIMENSION	93x78x67mm (LxWxH)
PACKING	0.31Kg; 48pcs / 16.1Kg / 1.3CUFT

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

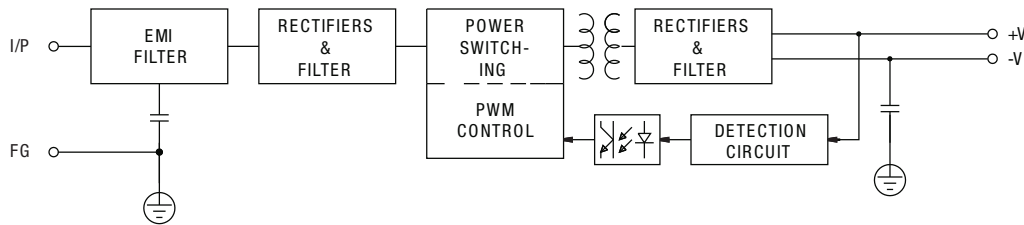
Mechanical Specification

Terminal Pin. No Assignment

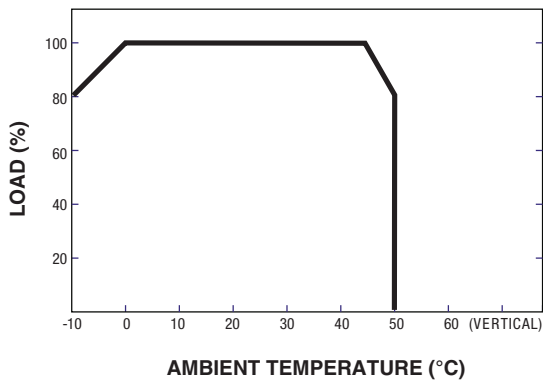
Pin	Assignment	Pin	Assignment
1	AC/L	6,7	DC OUTPUT+V
2	AC/N	8	LED
3	FG ⊕	9	+V ADJ.
4,5	DC OUTPUT-V		



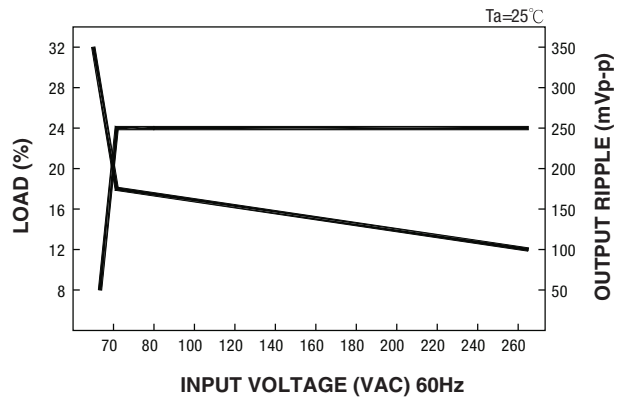
Block Diagram



Derating Curve



Static Characteristic (24V)



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