



# PS-S40 Series Specifications

## Features:

- Universal AC input/full range
- Protections: Short Circuit / Overload / Over voltage
- Cooling by free air convection
- DIN rail mountable
- NEC class 2 / LPS compliant (12V,24V,48V only)
- LED indicator for power on DC OK relay contact
- No load power consumption < 0.75W
- 100% full load burn-in test
- 3 years warranty



### OUTPUT

Cat. No.	PS-S4005	PS-S4012	PS-S4024	PS-S4048
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DC VOLTAGE	5V	12V	24V	48V
RATED CURRENT	6A	3.33A	1.7A	0.83A
CURRENT RANGE	0~6A	0~3.33A	0~1.7A	0~0.83A
RATED POWER	30W	40W	40.8W	39.8W
RIPPLE & NOISE (max)	80mVp-p	120mVp-p	150mVp-p	200mVp-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	5 ~ 6V	12 ~ 15V	24 ~ 30V	48 ~ 56V
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	500ms, 30ms/230VAC; 500ms, 30ms/115VAC at full load			
Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.				
HOLD UP TIME (Typ.)	50ms/230VAC; 20ms/115VAC at full load			

### INPUT

VOLTAGE RANGE	85~264VAC 120~370VDC			
FREQUENCY RANGE	47~63Hz			
EFFICIENCY (Typ.)	78%	86%	88%	88%
AC CURRENT (max)	1.1A/115VAC; 0.7A/230VAC			
INRUSH CURRENT (Typ.)	COLD START: 30A/115VAC; 60A/230VAC			
LEAKAGE CURRENT	≤1mA/ 240VAC			

### PROTECTION

OVERLOAD PROTECTION	105% ~ 150% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed			
OVER VOLTAGE PROTECTION	6.25~7.25V	15.6~18V	31.2~36V	57.6~64.8V
Protection type: Shut down o/p voltage, re-power on to recover				
OVER TEMPERATURE PROTECTION	Power supply shut down at 70°C constant current limiting / output voltage goes to 0; re-power on to recover			
DC OK AKTIV SIGNAL (max.)	Relay contact rating (max.): 30V/ 1A resistive			

### ENVIRONMENT

WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)
WORKING HUMIDITY	20 ~ 90% 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, 60 min. each long X,Y, Z axes
MOUNTING	Compliance to IEC60068-2-6

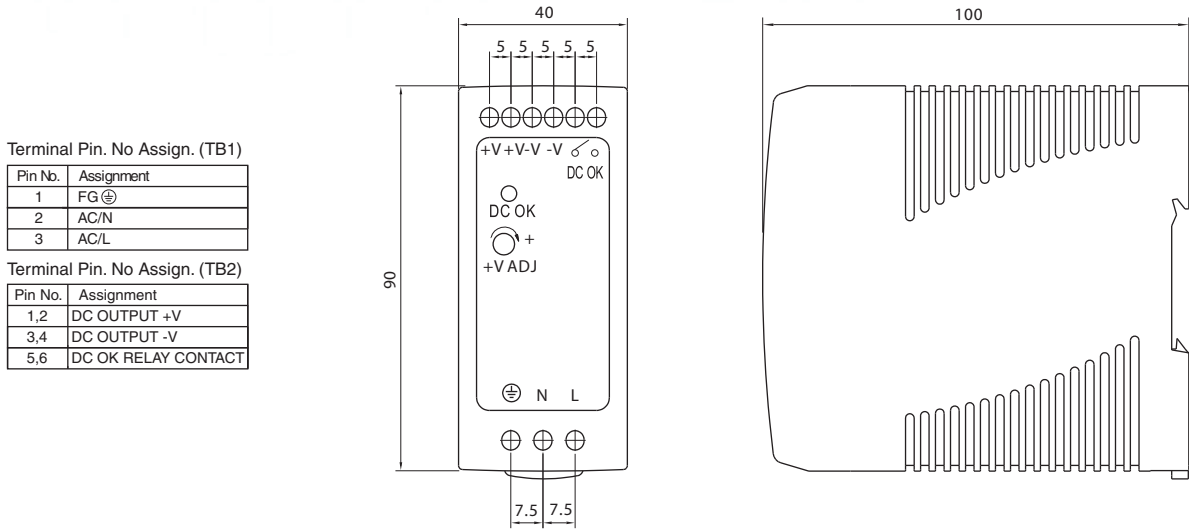
### SAFETY & EMC

SAFETY STANDARDS	UL508 UL60950-1 EN60950-1 approved NEC class2 / LPS compliant (12V, 24V, 48V only)
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) EN61204-3 Class B
HARMONIC CURRENT	Compliance to EN61000-3-2,-3
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024; ENV50204 ; EN61000-6-2; EN61204-3; light industry level; criteria A 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.

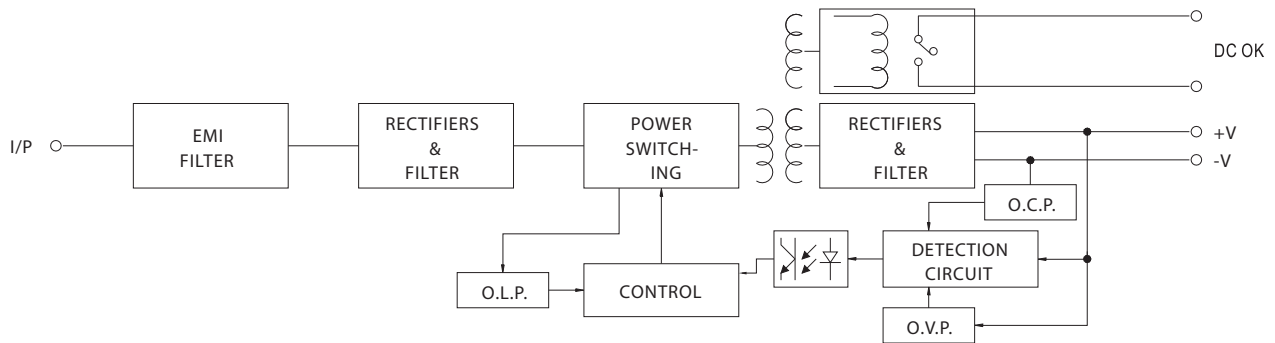
### OTHERS

MTBF	301.7K hrs min. MIL-HDBK-217K (25°C)
DIMENSION	40x90x100mm (WxHxD)
PACKING	0.3Kg; 42pcs / 13.6 Kg / 0.82CUFT
All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.	

**Mechanical Specification**



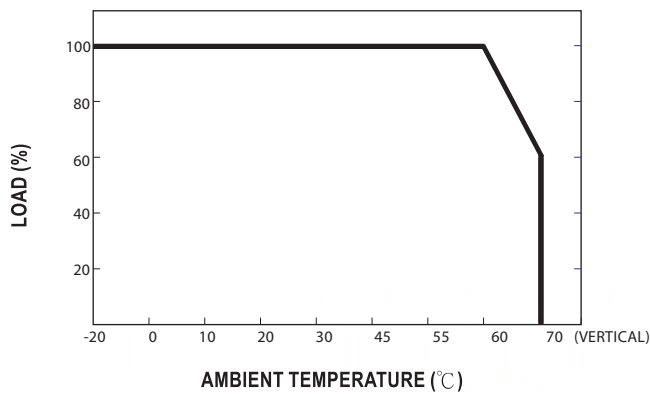
**Block Diagram**



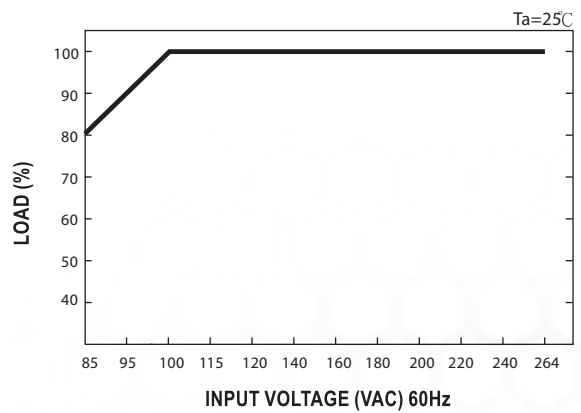
**DC OK Relay Contact**

Contact Close	When the output voltage reaches the adjusted output voltage.
Contact Open	When the output voltage drop more than 90% output voltage.
Contact Ratings (max.)	30V/1A resistive load

**Derating Curve**



**Output Derating VS Input Voltage**



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