PS-S40 Series

Specifications

Features:

- Universal AC input/full range
- Protections: Short Circuit / Overload / Overvoltage
- Cooling by free air convection
- DIN rail mountable
- LED indicator for power on DC OK relay contact
- No load power consumption < 0.75W
- 100% full load burn-in test
- 3 year warranty

	Cat. No.	PS-S4005	PS-S4012	PS-S4024	PS-S4048
OUTPUT	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			
	OVERVOLTAGE PROTECTION	6.25~7.25V	15.6~18V	31.2~36V	57.6~64.8V
		Protection type: Shut down overvoltage, 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. / 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) 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 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.			

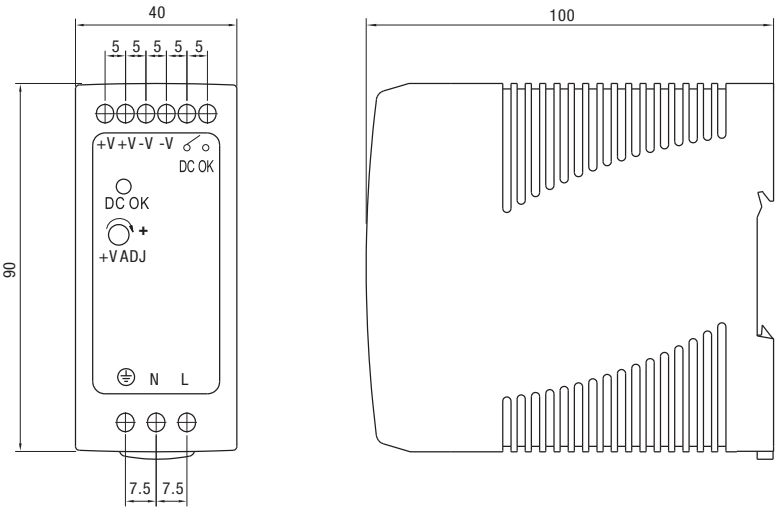
Mechanical Specification

Terminal Pin. No Assign. (TB1)

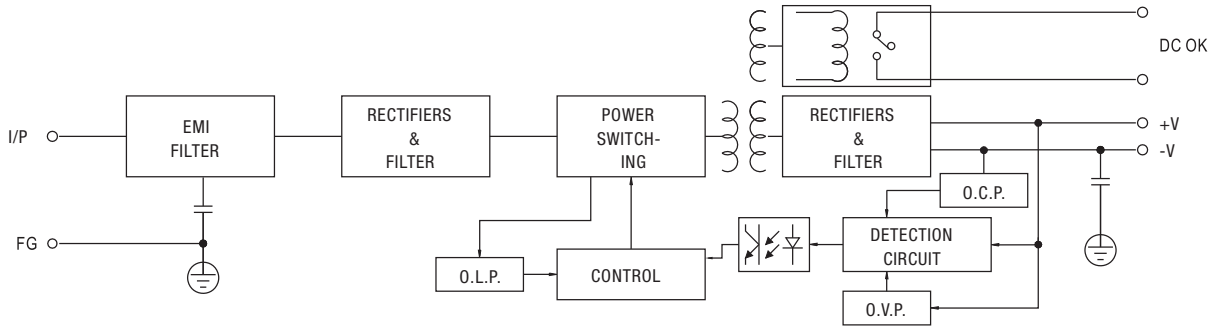
Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin. No Assign. (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	DC OK RELAY CONTACT



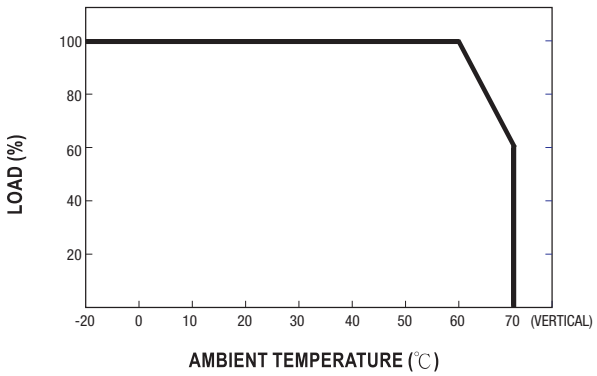
Block Diagram



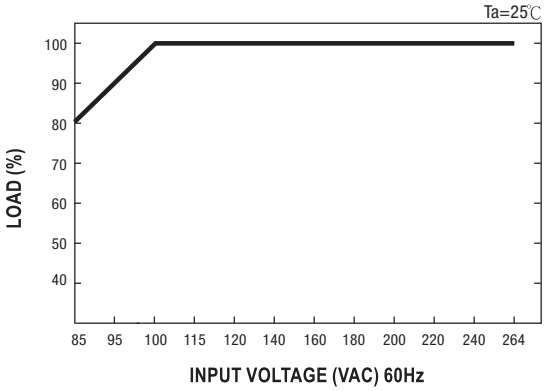
DC OK Relay Contact

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.