PS-S100 Series
Specifications

Features:

- Universal AC input / full range
- Protections: Short Circuit / Overload / Overvoltage / Over temperature
- ZCS/ZVS technology to reduce power dissipation
- Cooling by free air convection
- DIN rail mountable
- DC OK relay contact
- No load power consumption < 1W
- LED indicator for power on
- 100% full load burn-in test
- 3 year warranty

	Cat. No.	PS-S10012	PS-S10024	PS-S10048
OUTPUT	DC VOLTAGE	12V	24V	48V
	RATED CURRENT	7.5A	4A	2A
	CURRENT RANGE	0 ~ 7.5A	0 ~ 4A	0 ~ 2A
	RATED POWER	90W	96W	96W
	RIPPLE & NOISE (max)	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	12 ~ 15V	24 ~ 30V	48 ~ 56V
	VOLTAGE TOLERANCE	±1.0%	±1.0%	±1.0%
		Tolerance: includes set up tolerance, line regulation and load regulation.		
	LINE REGULATION	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME	3000ms, 50ms/230VAC; 3000ms, 50ms/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		
		Derating maybe needed under low input voltages, please check the derating curve for more detail		
	FREQUENCY RANGE	47~63Hz		
	POWER FACTOR (Typ.)	PF ≥ 0.95/230VAC; PF ≥ 0.98/115VAC at full load		
	EFFICIENCY (Typ.)	85%	86%	88%
	AC CURRENT (max)	1.3A/115VAC; 0.8A/230VAC		
	INRUSH CURRENT (Typ.)	COLD START: 30A/115VAC; 60A/230VAC		
	LEAKAGE CURRENT	≤1mA/ 240VAC		
PROTECTION	OVERLOAD	105% ~ 150% rated output power		
		Protection type: Constant current limiting, recovers automatically after fault condition is removed		
	OVERVOLTAGE	15.6 ~ 18V	31.2 ~ 36V	57.6 ~ 64.8V
		Protection type: Shut down overvoltage, re-power on to recover		
	OVERTEMPERATURE	90˚C ± 10˚C (RTH2) detect on heat sink of power transistor		
		Protection type: Shut down overvoltage, re-power on to recover		
	SHORT CIRCUIT 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.	-10 ~ +60˚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	346K hrs min. MIL-HDBK-217K (25˚C)		
	DIMENSION	55x90x100mm (WxHxD)		
	PACKING	0.42Kg; 30pcs / 13.6Kg / 0.82CUFT		
		All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25˚C of ambient temperature.		

For the latest on Altech Power Supply specifications please visit www.altechcorp.com/power.

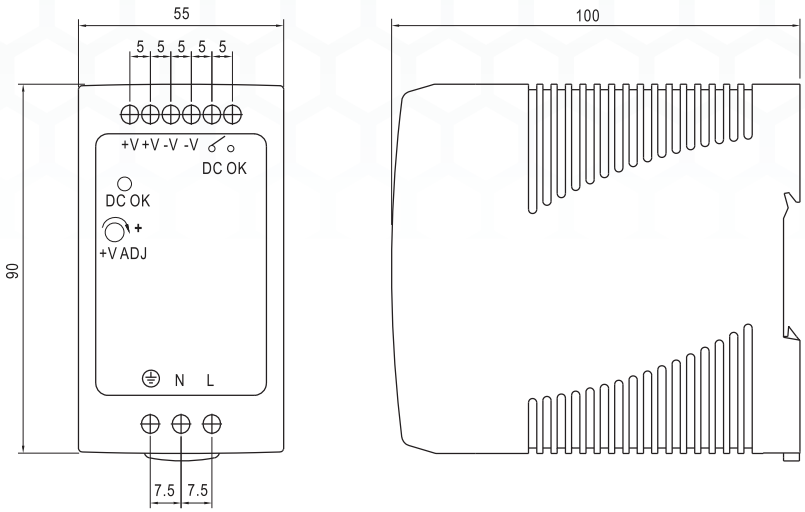
Mechanical Specification

Terminal Pin. No Assign. (TB1)

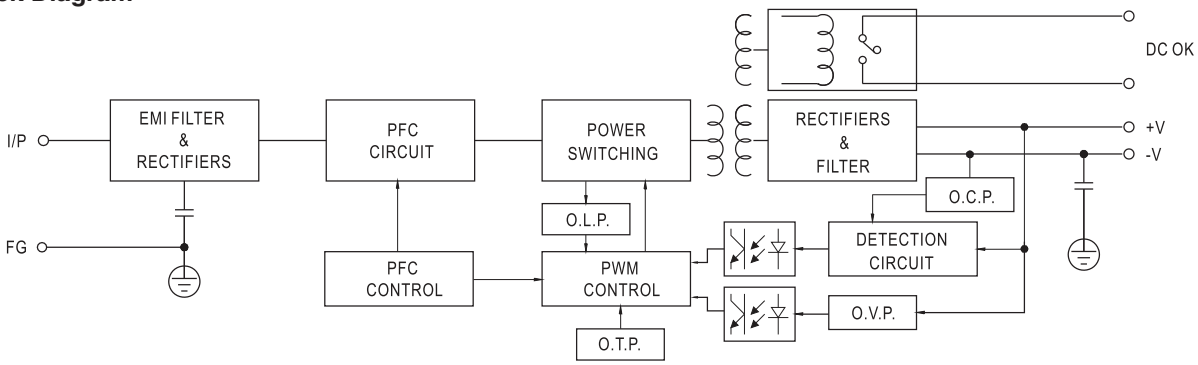
Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin. No Assign. (TB2)

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



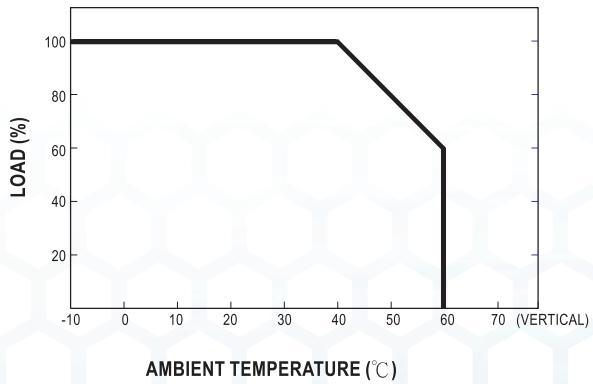
Block Diagram



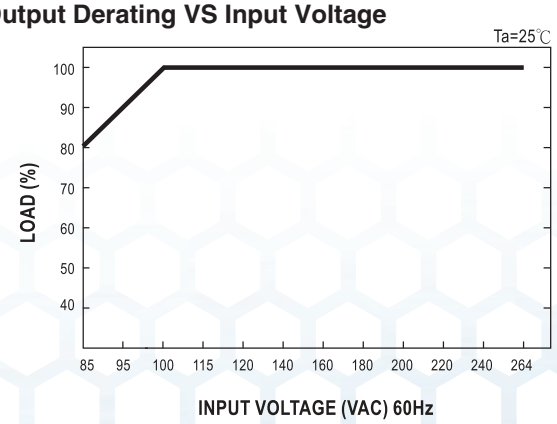
DC OK Relay Contact

Contact Close	When the output voltage reaches the adjusted output voltage.
Contact Open	When the output voltage drop below 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.