



# 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

## OUTPUT

## INPUT

## PROTECTION

## ENVIRONMENT

## SAFETY & EMC

## OTHERS

Cat. No.	PS-S10012	PS-S10024	PS-S10048
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		
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		
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		
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 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.			
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](http://www.altechcorp.com/power).

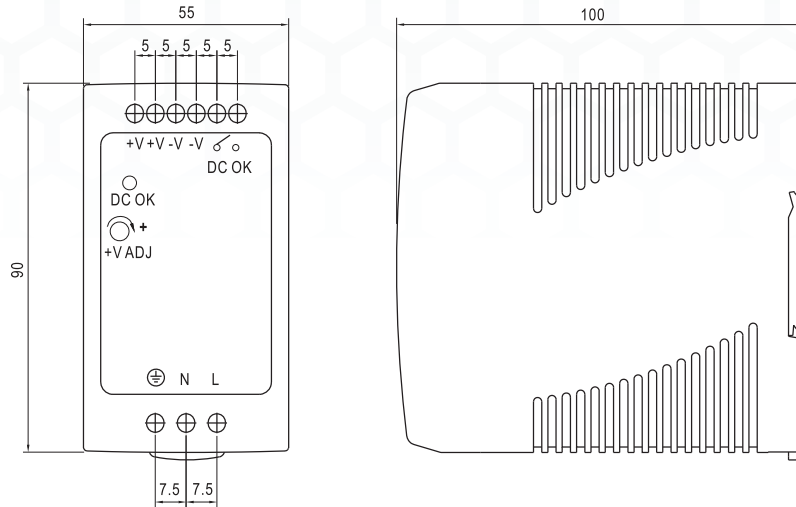
**Mechanical Specification**

Terminal Pin. No Assign. (TB1)

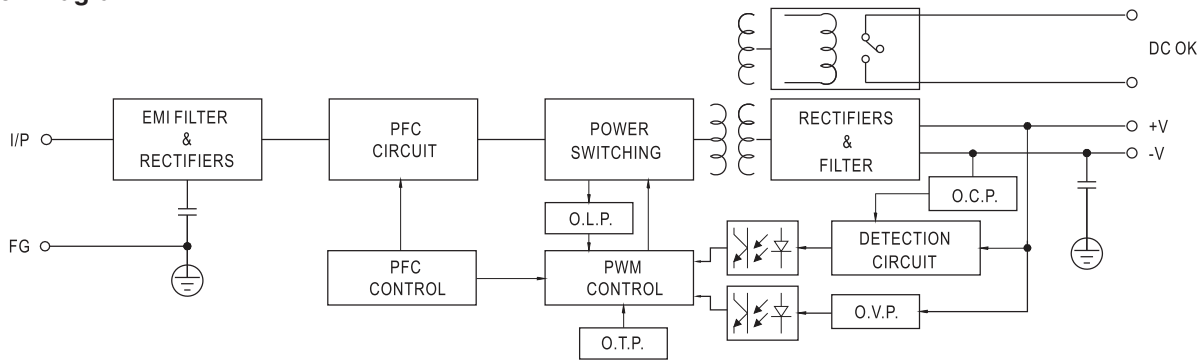
Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

Terminal Pin. No Assign. (TB2)

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



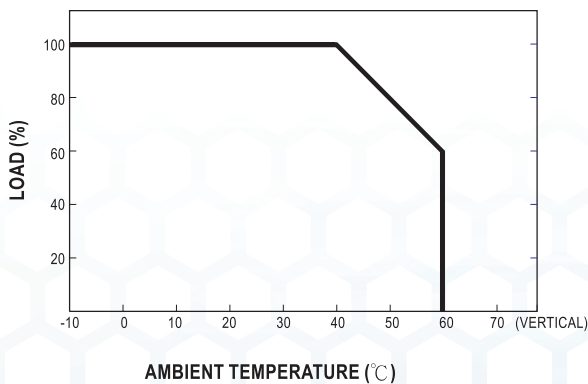
**Block Diagram**



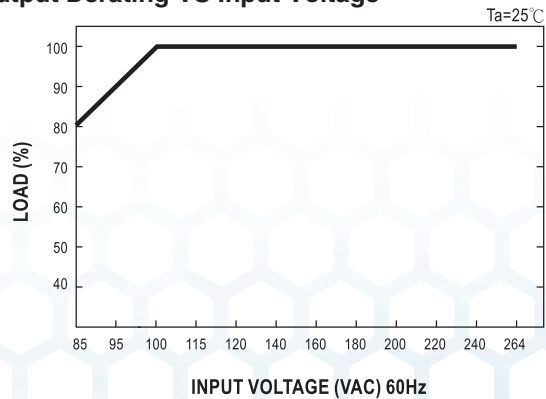
**DC OK Relay Contact**

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.

PSC Class 2 Series  
Compact Housing

PSA Flex Series  
1 Phase

PSB Flex Series  
2 & 3 Phase

PS-S Slim Series  
Plastic Housing

PS Low Profile Series  
Plastic Housing

PS Industrial Series  
1, 2 & 3 Phase

PS C & W Series  
1 and 2 Phase

CBI Type  
DC UPS Systems

CB Type  
Battery Chargers

Accessories

Appendix