



# 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<br>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<br>EN55022 (CISPR22)<br>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).

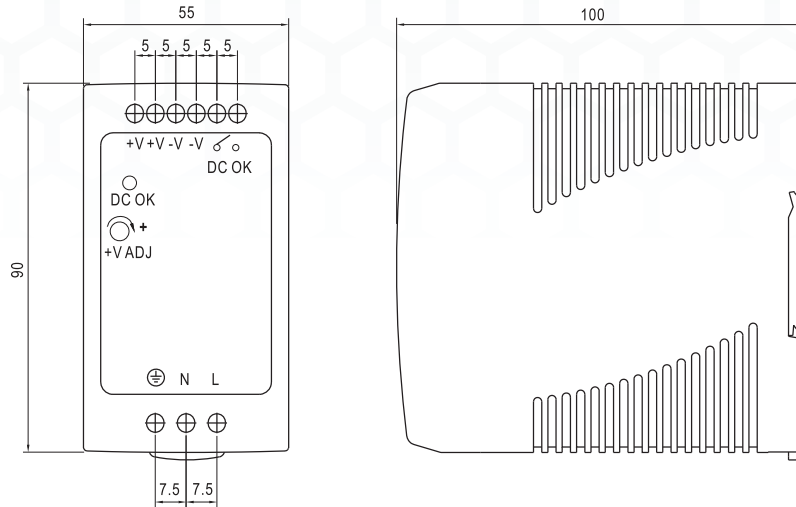
**Mechanical Specification**

Terminal Pin. No Assign. (TB1)

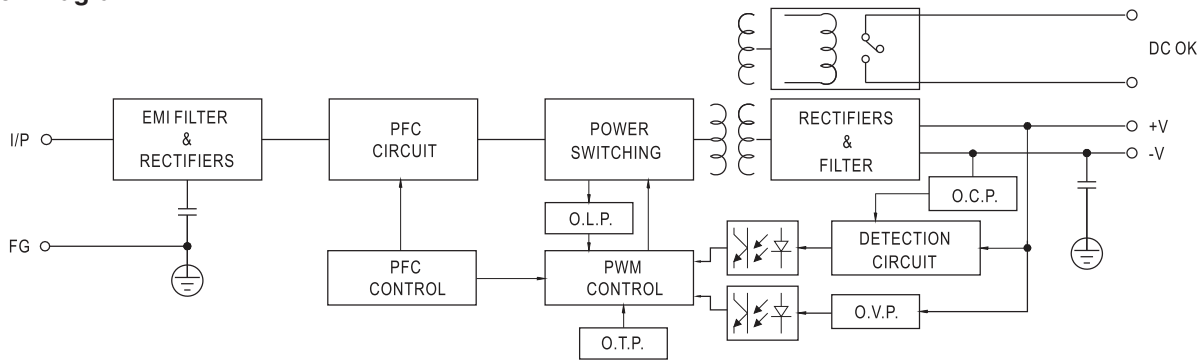
| Pin No. | Assignment |
|---------|------------|
| 1       | FG ⊕       |
| 2       | AC/N       |
| 3       | AC/L       |

Terminal Pin. No Assign. (TB2)

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



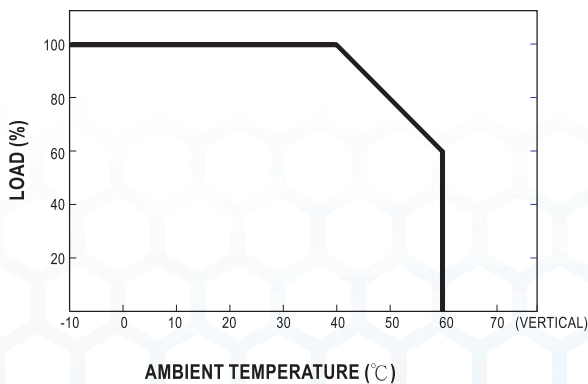
**Block Diagram**



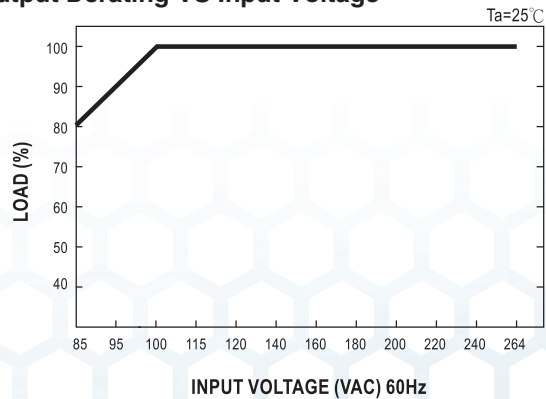
**DC OK Relay Contact**

|                        |  |
|------------------------|--|
| 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

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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