



# PSH-120 High Input Series

## Specifications



### Features:

- Universal AC input / full range
- Protections: Short Circuit / Overload / Over Voltage / Overtemperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- DIN rail mountable
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test
- Fixed switching frequency at 70KHz
- 3 year warranty

### OUTPUT

#### Cat. No.

#### PSH-12024

#### PSH-12048

DC VOLTAGE  
RATED CURRENT  
CURRENT RANGE  
RATED POWER  
RIPPLE & NOISE (max)

24V  
5A  
0 ~ 5A  
120W  
80mVp-p

48V  
2.5A  
0 ~ 2.5A  
120W  
80mVp-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  
VOLTAGE TOLERANCE

24 ~ 28V  
±1.0%

48 ~ 55V  
±1.0%

Tolerance: includes set up tolerance, line regulation and load regulation.

LINE REGULATION  
LOAD REGULATION

±0.5%  
±0.5%

±0.5%  
±0.5%

SETUP, RISE, HOLD UP TIME

1700ms, 120ms, 16ms / 400VAC

1000ms, 120ms, 30ms / 500VAC at full load

VOLTAGE RANGE  
FREQUENCY RANGE  
EFFICIENCY (Typ.)  
AC CURRENT (max.)  
INRUSH CURRENT (max.)  
LEAKAGE CURRENT

340 ~ 550VAC    480 ~ 780VDC  
47 ~ 63Hz  
85%  
0.65A / 400VAC    0.6A / 500VAC  
COLD START 50A  
≤ 3.5 mA / 530VAC

86%

OVERLOAD

105 ~ 160% rated output power

OVERVOLTAGE

30 ~ 36V

59 ~ 66V

Protection type: Shut down overvoltage, re-power on to recover

OVERTEMPERATURE

85°C ± 5°C (TSW: detect on heat sink of power switch)

Protection type: Shut down overvoltage, recovers automatically after temperature goes down

WORKING TEMP.  
WORKING HUMIDITY  
STORAGE TEMP., HUMIDITY  
TEMP. COEFFICIENT  
VIBRATION  
MOUNTING

-20 ~ +60°C (Refer to output load derating curve)  
20 ~ 90% RH non-condensing  
-40 ~ +85°C, 10 ~ 95% RH  
±0.03% / °C (0 ~ 50°C)  
10 ~ 500Hz, 2G 10min./1cycle, 60 min. each long X,Y, Z axes  
Compliance to IEC60068-2-6

SAFETY STANDARDS

UL60950-1 approved  
IEC60950-1 CB compliant

WITHSTAND VOLTAGE  
ISOLATION RESISTANCE  
EMI CONDUCTION & RADIATION  
EMS IMMUNITY

I/P-O/P: 3KVAC    I/P-FG: 1.5KVAC    O/P-FG: 0.5KVAC  
I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC (25°C; 70% RH)  
Compliance to EN55011 (CISPR11); EN55022 (CISPR22); EN61204-3 Class B  
Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204; EN61204-3; EN61000-6-2; (EN50082-2), heavy 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.

MTBF  
DIMENSION  
PACKING

178.7K hrs min.    MIL-HDBK-217K (25°C)  
65.5x125.2x100mm (WxHxD)  
0.75Kg; 20pcs / 16Kg / 1.29CUFT

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.

### INPUT

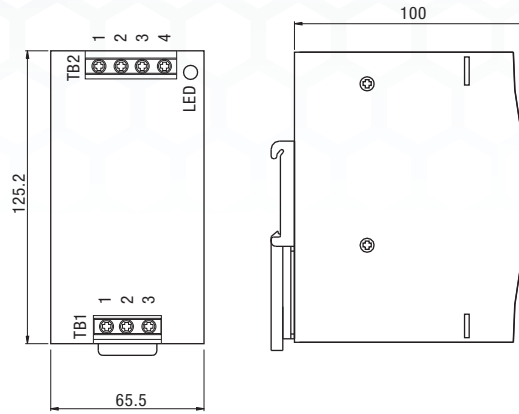
### PROTECTION

### ENVIRONMENT

### SAFETY & EMC

### OTHERS

**Mechanical Specification**



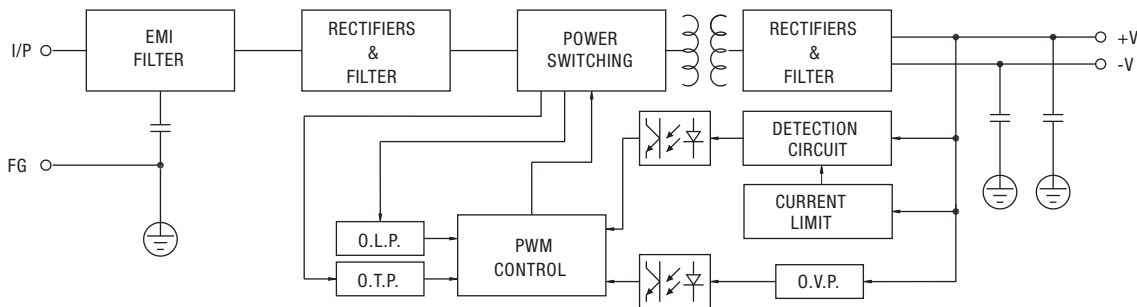
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG ⊕
2	AC/L2
3	AC/L1

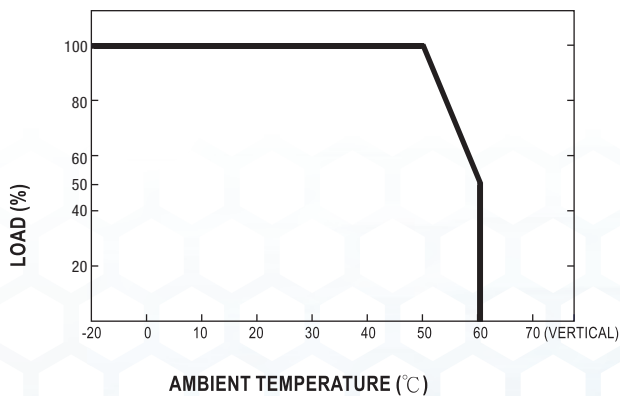
Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

**Block Diagram**



**Derating Curve**



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