



PSW-240 Series Specifications



Features:

- Single and two phase wide input range 180~550VAC
- High efficiency 91% and low power dissipation
- Protections: Short Circuit / Overload / Over Voltage / Overtemperature
- Cooling by free air convection
- DIN rail mountable
- UL 508 (industrial control equipment) approved
- EN61000-6-2 (EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 year warranty

OUTPUT

Cat. No.

PSW-24024

PSW-24048

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

24V
10A
0 ~ 10A
240W
150mVp-p

48V
5A
0 ~ 5A
240W
150mVp-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
SETUP, RISE, HOLD UP TIME

±0.5%
±1.0%
800ms, 150ms, 18ms / 400VAC

±0.5%
±1.0%

1500ms, 150ms, 18ms / 230VAC at full load

INPUT

VOLTAGE RANGE

180 ~ 550VAC 254 ~ 780VDC

Derating may be needed under low input voltage. Please check the derating curve for more details

FREQUENCY RANGE

47 ~ 63Hz

EFFICIENCY (Typ.)

91%

AC CURRENT

1A / 400VAC 2A / 230VAC

INRUSH CURRENT (Typ.)

COLD START 50A

LEAKAGE CURRENT

≤ 3.5 mA / 530VAC

PROTECTION

OVERLOAD

105 ~ 130% rated output power

Protection type: Constant current limiting, unit will shut down after 3 sec.; auto recovery after 1 minute if the fault condition is removed

OVERVOLTAGE

29 ~ 33V 56 ~ 65V

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

Under over-voltage condition, if input voltage ≤ 200VAC, the power supply will shut down and then may have auto-recovery after several seconds

OVERTEMPERATURE

90°C ± 5°C (TSW) detect on heat sink of power switch

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

DC OK RELAY CONTACT RATINGS (max.)

60VDC / 0.3A; 30VDC / 1A; 30VAC / 0.5A resistive load

ENVIRONMENT

WORKING TEMP.

-30 ~ +70°C (Refer to output load derating curve)

Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.

WORKING HUMIDITY

20 ~ 95% RH non-condensing

STORAGE TEMP., HUMIDITY

-40 ~ +85°C; 10 ~ 95% RH

TEMP. COEFFICIENT

±0.03% / °C (0 ~ 50°C)

VIBRATION

10 ~ 500Hz, 2G 10min./1cycle, 60 min. each long X,Y, Z axes

MOUNTING

Compliance to IEC60068-2-6

SAFETY & EMC

SAFETY STANDARDS

UL508 approved
IEC 60950-1 compliant
Design refer to GL

WITHSTAND VOLTAGE

I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG :0.5KVAC O/P-DC OK: 0.5KVAC

ISOLATION RESISTANCE

I/P-O/P, I/P-FG, O/P-FG: ≥ 100M Ohms / 500VDC (25°C; 70% RH)

EMI CONDUCTION & RADIATION

EN55022 (CISPR22), Class B

HARMONIC CURRENT

Compliance to EN61000-3-2,-3

EMS IMMUNITY

Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204; EN 55024; EN61000-6-2; (EN50082-2); EN61204-3; heavy industry level; criteria A approved;

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

141.1K hrs min. MIL-HDBK-217K (25°C)

DIMENSION

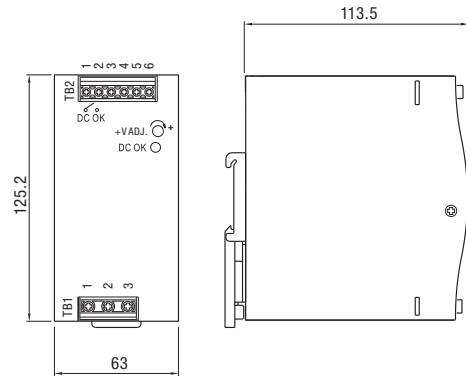
63x125.2x113.5mm (WxHxD)

PACKING

1.06Kg; 12pcs / 13.7Kg / 1.06CUFT

All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.

Mechanical Specification



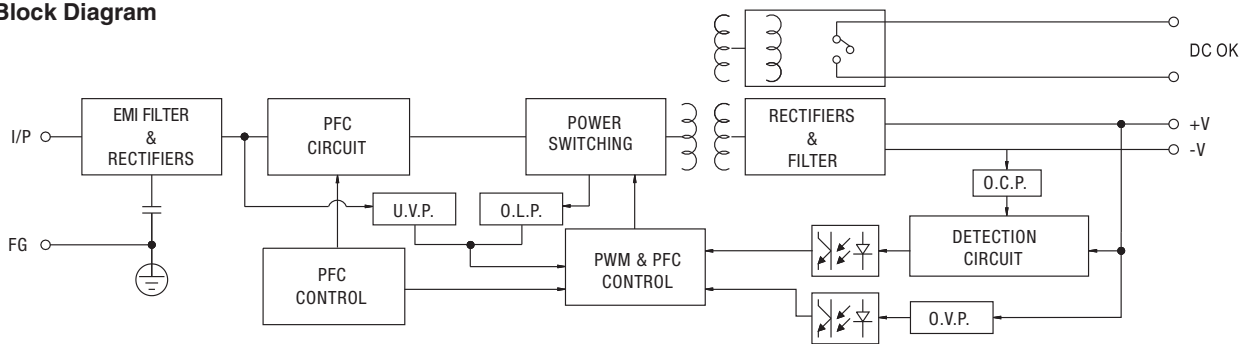
Terminal Pin No. Assignment (TB1)

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

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	Relay Contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V

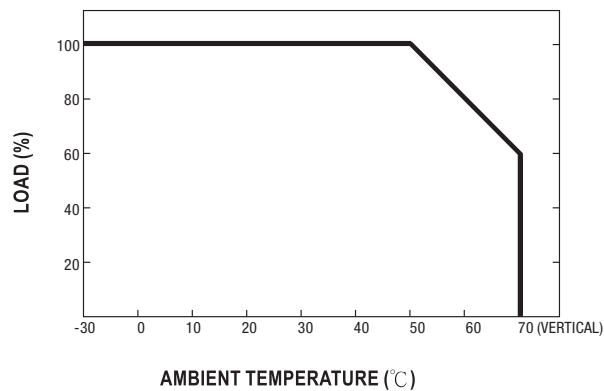
Block Diagram



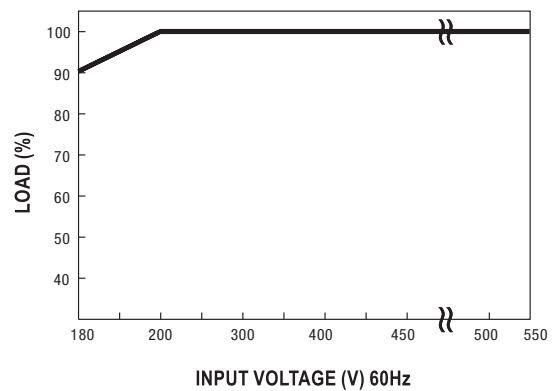
DC OK Relay Contact

Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
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.