



PSW-480 Series Specifications



Features:

- Single and two phase wide input range 180~550VAC
- High efficiency 93% 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-48024	PSW-48048
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DC VOLTAGE	24V	48V
RATED CURRENT	20A	10A
CURRENT RANGE	0 ~ 20A	0 ~ 10A
RATED POWER	480W	480W
RIPPLE & NOISE (max)	100mVp-p	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	24 ~ 28V	48 ~ 55V
VOLTAGE TOLERANCE	±1.0%	±1.0%
Tolerance: includes set up tolerance, line regulation and load regulation.		
LINE REGULATION	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±1.0%
SETUP, RISE, HOLD UP TIME	800ms, 150ms, 18ms / 400VAC	2000ms, 150ms, 16ms / 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.)	92%	93%
AC CURRENT	1.6A / 400VAC	4A / 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; auto recovery after 1 minute if the fault condition is removed		
Under over-voltage condition, if input voltage ≤ 200VAC, the power supply will shut down and then may have auto-recovery after several seconds.		
OVERTEMPERATURE	95°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	

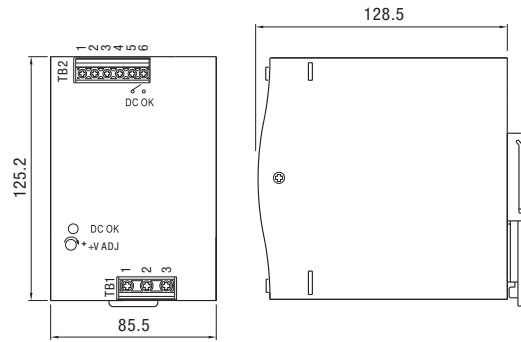
SAFETY & EMC

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), 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; 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 be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.			

OTHERS

MTBF	112.8K hrs min.	MIL-HDBK-217K (25°C)
DIMENSION	85.5x125.2x128.5mm (WxHxD)	
PACKING	1.7Kg; 8pcs / 14.6Kg / 0.9CUFT	
All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.		

Mechanical Specification



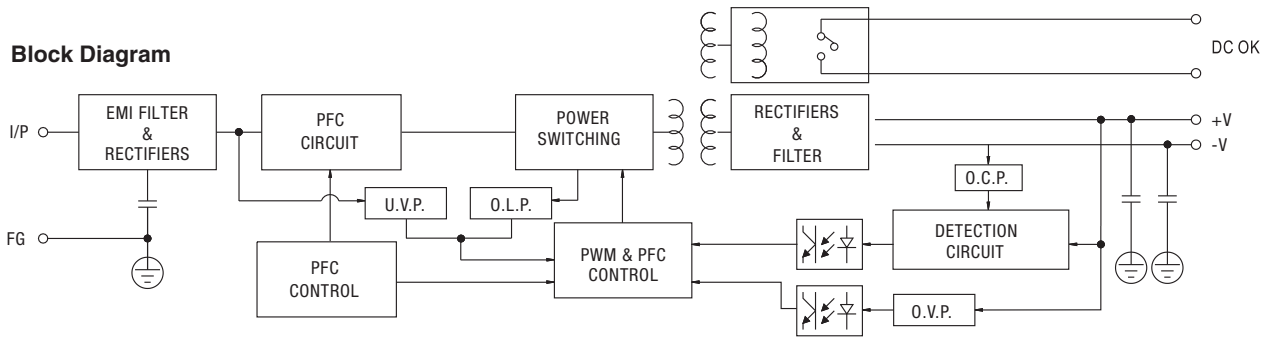
Terminal Pin No. Assignment (TB1)

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

Terminal Pin No. Assignment (TB2)

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

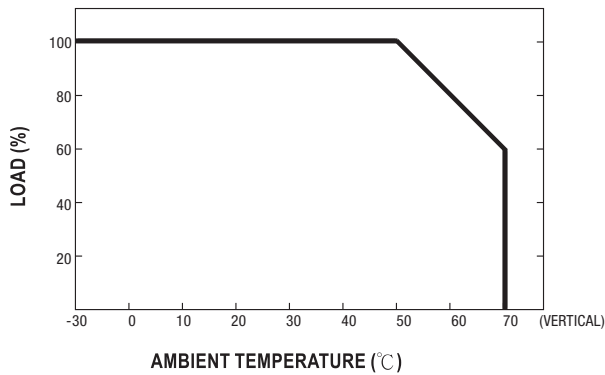
Block Diagram



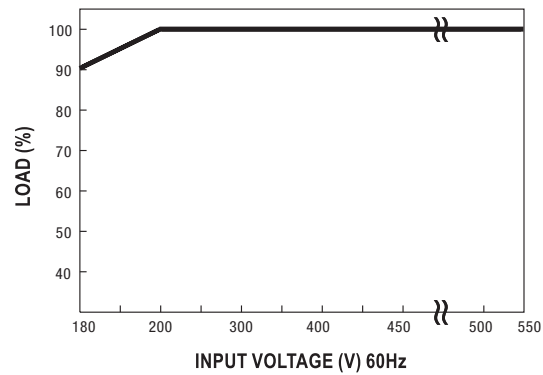
DC OK Relay Contact

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.