



# PSW-120 Series Specifications



## Features:

- Single and two phase wide input range 180 ~ 550VAC
- Protections: Short Circuit / Overload / Over Voltage / Overtemperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- DIN rail mountable
- UL508 (industrial control equipment) approved
- EN61000-6-2 (EN50082-2) industrial immunity level
- 100% full load burn-in test
- Built-in DC OK relay contact
- 3 year warranty

### OUTPUT

Cat. No.	PSW-12012	PSW-12024	PSW-12048
----------	-----------	-----------	-----------

DC VOLTAGE	12V	24V	48V
RATED CURRENT	10A	5A	2.5A
CURRENT RANGE	0 ~ 10A	0 ~ 5A	0 ~ 2.5A
RATED POWER	120W	120W	120W
RIPPLE & NOISE (max)	120mVp-p	120mVp-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	12 ~ 15V	24 ~ 29V	48 ~ 58V
VOLTAGE TOLERANCE	±1.5%	±1.0%	±1.0%
Tolerance: includes set up tolerance, line regulation and load regulation.			
LINE REGULATION	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±0.5%	±0.5%	±0.5%
SETUP, RISE HOLD UP TIME	2000ms, 70ms, 50ms / 400VAC	2000ms, 70ms, 10ms / 230VAC at full load	
Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quick may lead to increase of the set up time.			
VOLTAGE RANGE	180 ~ 550VAC	254 ~ 780VDC	
FREQUENCY RANGE	47 ~ 63Hz		
EFFICIENCY (Typ.)	89.5% / 400V	91% / 400V	92% / 400V
AC CURRENT	0.55A / 400VAC	1.2A / 230VAC	
INRUSH CURRENT (Typ.)	COLD START 50A		
LEAKAGE CURRENT	≤ 3.5 mA / 530VAC		
OVERLOAD	105 ~ 130% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed		
OVERVOLTAGE	16 ~ 18V	31 ~ 37V	60 ~ 67V
OVERTEMPERATURE	Protection type: Shut down overvoltage, re-power on to recover 105°C ± 5°C (12V), 110°C ± 5°C (24V) (TSW1) detect on heat sink of power switch transistor; 100°C ± 5°C (48V) (TSW1) detect on heat sink of power diode Protection type: Shut down overvoltage, re-power automatically after temperature goes down		
DC OK SIGNAL	Relay contact rating (max.): 30V / 1A resistive		
WORKING TEMP.	-25 ~ +70°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	10 ~ 500Hz, 2G 10min./1cycle, 60 min. each long X,Y, Z axes Mounting clip: Compliance to IEC60068-2-6		
SAFETY STANDARDS	UL508 approved IEC60950-1 compliant		
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	Compliance to EN55011 (CISPR11), EN55022 (CISPR22), EN61204-3 Class B		
EMS IMMUNITY	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 installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.		
MTBF	268K hrs min. MIL-HDBK-217K (25°C)		
DIMENSION	40x125.2x113.5mm (WxHxD)		
PACKING	0.65Kg; 20pcs / 14Kg / 1.16CUFT		
All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.			

### INPUT

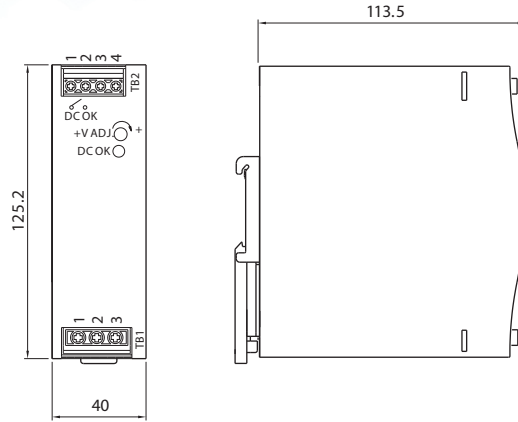
### PROTECTION

### ENVIRONMENT

### SAFETY & EMC

### OTHERS

**Mechanical Specification**



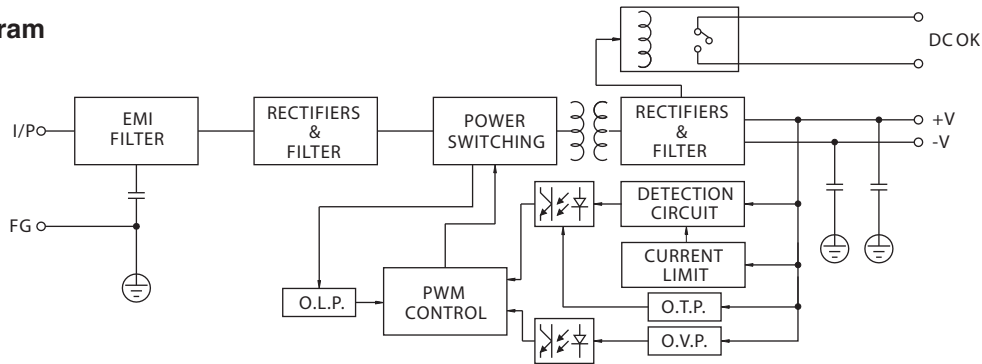
TerminaPinNo. Assignment (TB1)

PinNo.	Assignment
1	FG ⊕
2	AC/L2
3	AC/L1

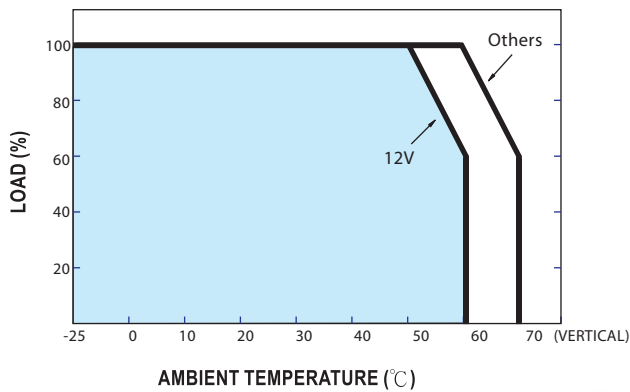
TerminaPinNo. Assignment (TB2)

PinNo.	Assignment
1,2	Relay Contact
3	DC OUTPUT -V
4	DC OUTPUT +V

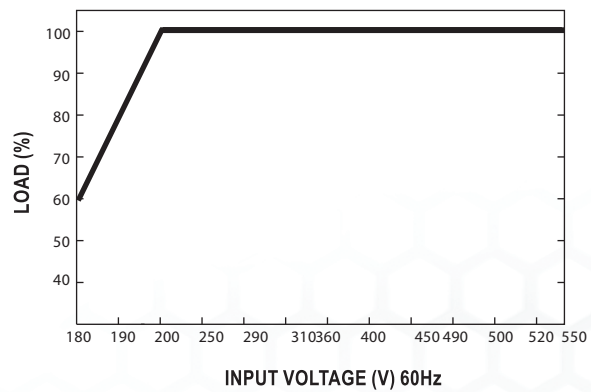
**Block Diagram**



**Derating Curve**



**Static Characteristics**



Note: All dimensions are in millimeters, to convert to inches multiply by 0.03937.

Slimline  
single phase

Low Profile  
single phase

Industrial Metal Case  
single phase

Industrial Metal Case  
three phase

High Efficiency  
compact housing

Accessories