PS-C120 Series
Specifications

Features:
- High efficiency 91% and low power dissipation
- 150% peak load capability
- Built-in active PFC function, PF>0.93
- Protections: Short Circuit / Overload / Over Voltage / Over Temperature
- 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 years warranty

OUTPUT

INPUT

PROTECTION

ENVIRONMENT

SAFETY & EMC

OTHERS

Cat. No.	PS-C12012	PS-C24024	PS-C24048
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
PEAK CURRENT	15A	7.5A	3.75A
PEAK POWER	180W (3 sec.) 3 seconds max., please refer to peak loading curves		
RIPPLE & NOISE (max)	100mVp-p	100mVp-p	120mVp-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 ~ 14V	24 ~ 28V	48 ~ 55V
VOLTAGE TOLERANCE	±1.0%	±1.0%	±1.0%
	Tolerance: includes set up tolerance, line regulation and load regulation.		
LINE REGULATION	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±1.0%	±1.0%
SETUP, RISE TIME	1500ms, 60ms / 230VAC	3000ms, 60ms / 115VAC at full load	
HOLD UP TIME (Typ.)	20ms / 230VAC	20ms / 115VAC at full load	
VOLTAGE RANGE	88 ~ 264VAC	124 ~ 370VDC	
	Deating may be needed under low input voltages, please check the derating curve for more detail		
FREQUENCY RANGE	47 ~ 63Hz		
POWER FACTOR (Typ.)	0.93 / 230VAC	0.96 / 115VAC at full load	
EFFICIENCY (Typ.)	89%	91%	90.50%
AC CURRENT (Typ.)	1.4A / 115VAC	0.7A / 230VAC	
INRUSH CURRENT (Typ.)	35A / 115VAC	70A / 230VAC	
LEAKAGE CURRENT	≤ 1 mA / 240VAC		
OVERLOAD	Normally works within 110 ~ 150% rated output power for more than 3 seconds and then shut down o/p voltage ≥ 150% rated power, constant current limiting with auto-recovery within 3 seconds and shut down o/p voltage after 3 seconds		
OVER VOLTAGE	14 ~ 17V	29 ~ 33V	56 ~ 65V
	Protection type: Shut down o/p voltage, re-power on to recover		
OVER TEMPERATURE	95°C ± 5°C (TSW: detect on heat sink of power switch)		
	Protection type: Shut down o/p voltage, re-power automatically after temperature goes down		
DC OK RELAY CONTACT RATINGS (max.)	60VDC / 0.3A	30VDC / 1A	30VAC / 0.5A RESISTIVE LOAD
WORKING TEMP.	-25 ~ +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 STANDARDS	UL508 EN60950-1 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 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; EN55024; EN61000-6-2; (EN50082-2); EN61204-3; heavy industry level; criteria A, SEMI F47, GL 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.		
MTBF	289.9K hrs min. MIL-HDBK-217K (25°C)		
DIMENSION	40x125.2x113.5mm (WxHxD)		
PACKING	0.67Kg; 20pcs / 14.4Kg / 1.16CUFT		
	All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature.		

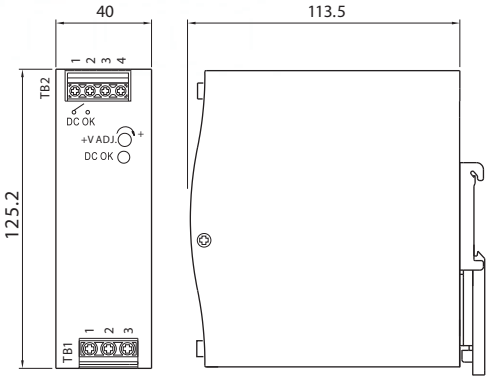
Mechanical Specification

Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB2)

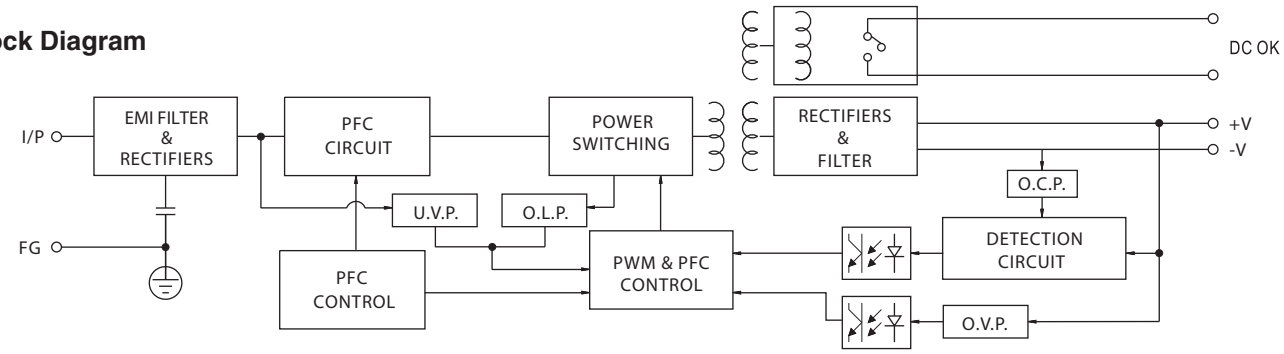
Pin No.	Assignment
1,2	Relay Contact
3	DC OUTPUT -V
4	DC OUTPUT+V



DC OK Relay Contact

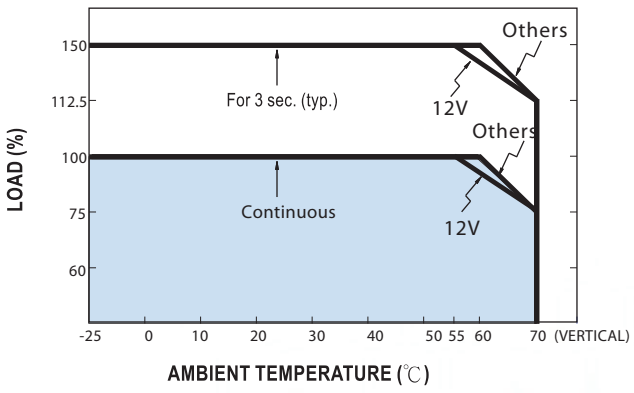
Contact Close	When the output voltage reaches the adjusted output voltage.
Contact Open	When the output voltage drop below 90% output voltage.
Contact Ratings (max.)	30V/1A resistive load

Block Diagram

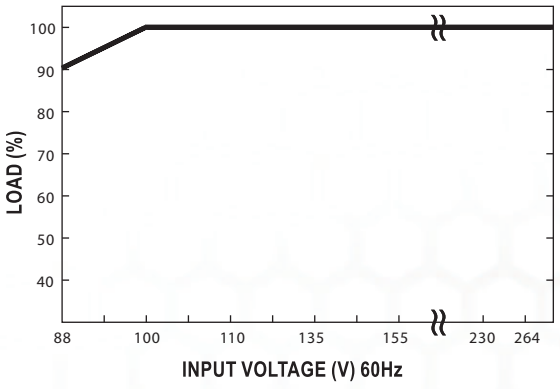


Peak Loading

Derating Curve



Output Derating VS Input Voltage



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