



# 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 / 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.	PS-C12012	PS-C12024	PS-C12048
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
VOLTAGE ADJ. RANGE	12 ~ 14V	24 ~ 28V	48 ~ 55V
VOLTAGE TOLERANCE	±1.0%	±1.0%	±1.0%
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	

Ripple & noise are measured at 20MHz of bandwidth by using a 12 twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.

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

## INPUT

VOLTAGE RANGE	88 ~ 264VAC	124 ~ 370VDC	
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		

Derating may be needed under low input voltages, please check the derating curve for more detail

## PROTECTION

OVERLOAD	Normally works within 110 ~ 150% rated output power for more than 3 seconds and then shut down overvoltage ≥ 150% rated power, constant current limiting with auto-recovery within 3 seconds and shut down overvoltage after 3 seconds		
OVERVOLTAGE	14 ~ 17V	29 ~ 33V	56 ~ 65V
OVERTEMPERATURE	95°C ± 5°C (TSW: detect on heat sink of power switch) Protection type: Shut down overvoltage, re-power on to recover Protection type: Shut down overvoltage, re-power automatically after temperature goes down		
DC OK RELAY CONTACT RATINGS (max.)	60VDC / 0.3A	30VDC / 1A	30VAC / 0.5A RESISTIVE LOAD

## ENVIRONMENT

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 & EMC

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

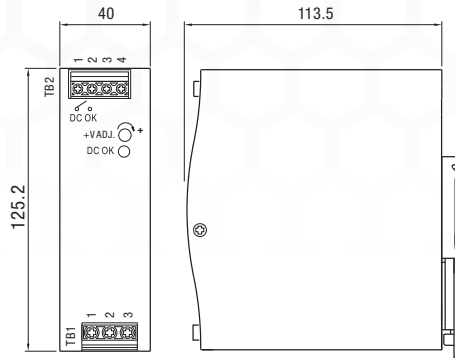
## OTHERS

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.		

For the latest on Altech Power Supply specifications please visit [www.altechcorp.com/power](http://www.altechcorp.com/power).

**Mechanical Specification**

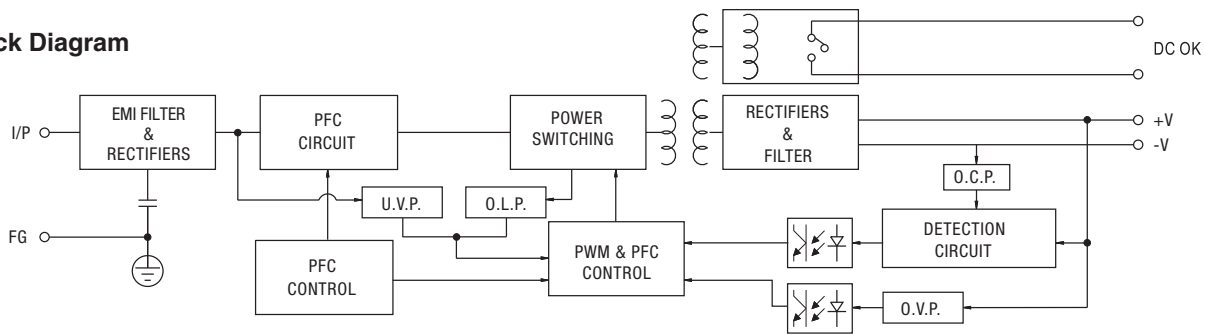
Terminal Pin No. Assignment (TB1)		Terminal Pin No. Assignment (TB2)	
Pin No.	Assignment	Pin No.	Assignment
1	FG ⊕	1,2	Relay Contact
2	AC/N	3	DC OUTPUT -V
3	AC/L	4	DC OUTPUT +V



**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

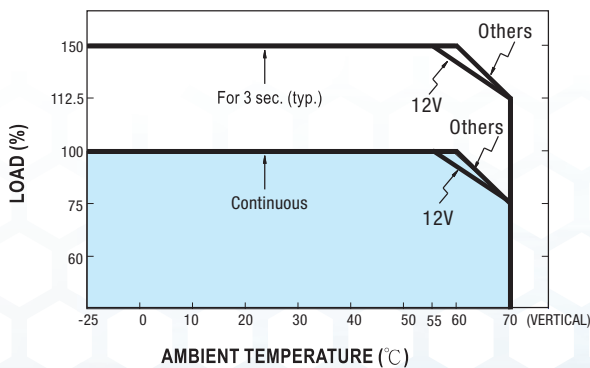
**Block Diagram**



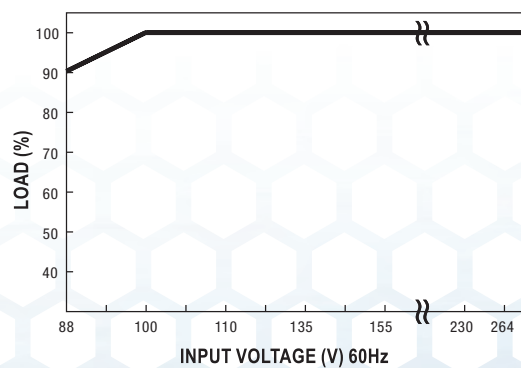
**Peak Loading**



**Derating Curve**



**Output Derating VS Input Voltage**



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

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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [DIN Rail Power Supplies](#) category:*

*Click to view products by [Altech](#) manufacturer:*

Other Similar products are found below :

[PS-3015](#) [PSP-480S48](#) [PSR-SD25](#) [PS-S6024](#) [DR-45-24](#) [DRP048V120W1BA](#) [DVP01PU-S](#) [DVP06AD-S](#) [DVP06XA-S](#) [DVDPNET-SL](#)  
[DV PDT01-S](#) [DVPPS01](#) [DVPPS02](#) [KHNA30F-5](#) [KHNA60F-24](#) [S8JX-G01524](#) [S8JX-G01548C](#) [S8JX-G03512D](#) [S8VS-09024B-F](#) [PS-6012](#)  
[PS9Z-5R1G](#) [PS-C24024](#) [PSC-9648](#) [5607189](#) [KHNA30F-24](#) [KHNA480F-24](#) [KHNA90F-12](#) [KHNA90F-24](#) [DVP08ST11N](#) [DVPACAB530](#)  
[DVPCOPM-SL](#) [DVPEN01-SL](#) [DVPPF01-S](#) [S8JX-G10012](#) [S8JX-G15024](#) [CBI1210A](#) [SS14011524](#) [S8JX-G01505C](#) [S8TS-06024-E1](#) [PS-](#)  
[S2012](#) [PSW-12024](#) [PS-UPS40](#) [PSC-6024](#) [S8VS-48024A-F](#) [PSD-A60W12](#) [96PS-A120WDIN](#) [PSD-A60W48](#) [S8JX-G03515CD](#) [PSD-](#)  
[A40W12](#) [PSD-A40W24](#)