PS-C Series

Altech Corp.

Features:

- High efficiency up to 94% and low power dissipation
- Universal AC Input / Full Range
- 150% peak load capability
- Built-in active PFC function, PF>0.93
- Protections: Short circuit / Overload / Overvoltage / Over temperature
- Cooling by free air convection
- Din rail mountable
- LED indicator for power on
- UL 508 (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

35mm DIN Rail Mounting

Adjustable DC Output Voltage

DC on LED signal

Easy to understand layout panel

Rugged metal housing

CE Compliance

UL508 Compliance

Universal Input

Narrow for maximized panel space

120-480W Single Phase

COMPACT SIZE POWER SUPPLIES

120W Single Output DIN Rail Power Supply

Cat. No.	Output V DC	A	Tol. %	Ripple & Noise	Efficiency	NOTES
PS-C12012	12V DC	10A	±1%	100 mVp-p	89%	
PS-C12024	24V DC	5A	±1%	100 mVp-p	91%	
PS-C12048	48V DC	2.5A	±1%	120 mVp-p	91%	

240W Single Output DIN Rail Power Supply

Cat. No.	Output V DC	A	Tol. %	Ripple & Noise	Efficiency	NOTES
PS-C24024	24V DC	10A	±1%	100 mVp-p	94%	
PS-C24048	48V DC	5A	±1%	120 mVp-p	94%	

480W Single Output DIN Rail Power Supply

Cat. No.	Output V DC	A	Tol. %	Ripple & Noise	Efficiency	NOTES
PS-C48024	24V DC	20A	±1%	100 mVp-p	94%	
PS-C48048	48V DC	10A	±1%	120 mVp-p	94%	

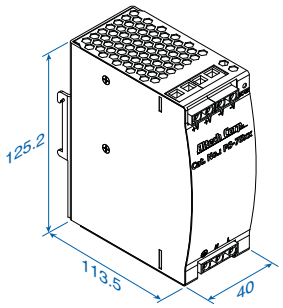
480W Single Output DIN Rail Power Supply

with PFC and Parallel Function (1+7)

Cat. No.	Output V DC	A	Tol. %	Ripple & Noise	Efficiency	NOTES
PS-C480P24	24V DC	20A	±1%	100 mVp-p	94%	
PS-C480P48	48V DC	10A	±1%	120 mVp-p	94%	

Altech Corp.

PS-C120 Series



Terminal Pin. No Assign. (TB1)

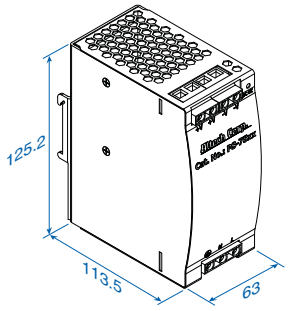
Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin. No Assign. (TB2)

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

Universal Input: 88-264V AC, 124-370V DC full range,
1.4A/115V AC, 0.7A/230V AC
Connection: Input - 3 poles, Output – 4 poles screw terminal
Size (WxHxD): 40x125.2x113.5mm (1.57x4.93x4.47 inches)
Packaging: 1/box; 1.48lbs / 0.67Kg

PS-C240 Series



Terminal Pin. No Assign. (TB1)

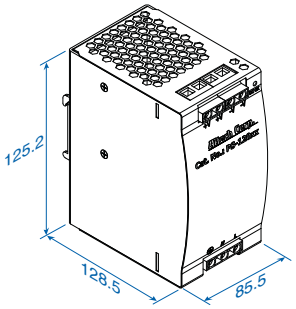
Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Terminal Pin. No Assign. (TB2)

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

Switch select Input: 88-264V AC, 124-370V DC range,
2.6A/115V AC, 1.3A/230V AC
Connection: Input - 3 poles, Output – 6 poles screw terminal
Size (WxHxD): 63x125.2x113.5mm (2.48x4.93x4.47 inches)
Packaging: 1/box; 2.27lbs / 1.03Kg

PS-C480 Series



Terminal Pin. No Assign. (TB1)

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

Terminal Pin. No Assign. (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact
7,8	NC

For Parallel Model
Terminal Pin. No Assign. (TB1)

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

For Parallel Model
Terminal Pin. No Assign. (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact
7	P+ (current share)*
8	P- (current share)*

* Only parallel function.

Universal Input: 90-264V AC, 127-370V DC full range,
5A/115V AC, 2.5A/230V AC
Connection: Input - 3 poles, Output – 12 poles screw terminal
Size (WxHxD): 85.5x125.2x128.5mm (3.37x4.93x5.06 inches)
Packaging: 1/box; 3.53lbs / 1.6Kg

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

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

Cat. No.	PS-C12012	PS-C12024	PS-C12048
OUTPUT			
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	
INPUT			
VOLTAGE RANGE	88 ~ 264VAC	124 ~ 370VDC	
	Derating 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		
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
	Protection type: Shut down overvoltage, re-power on to recover		
OVERTEMPERATURE	95°C ± 5°C (TSW: detect on heat sink of power switch)		
	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 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.		

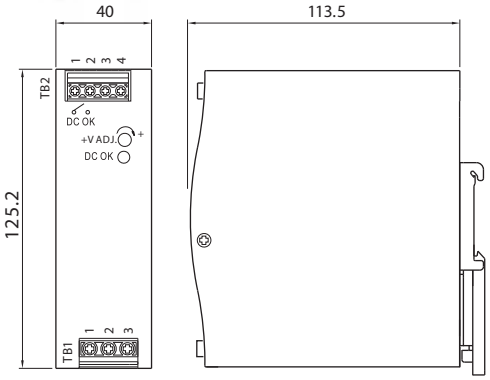
Mechanical Specification

Terminal Pin No. Assignment (TB1)

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

Terminal Pin No. Assignment (TB2)

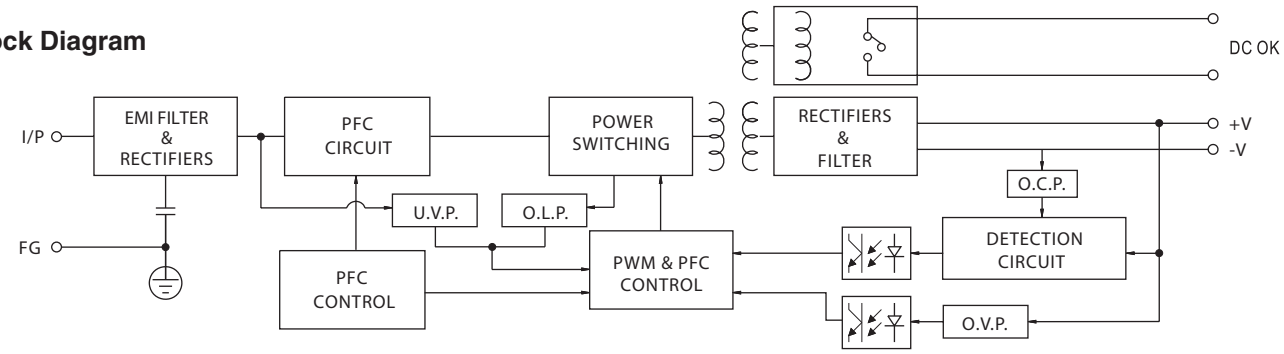
Pin No.	Assignment
1,2	Relay Contact
3	DC OUTPUT -V
4	DC OUTPUT+V



DC OK Relay Contact

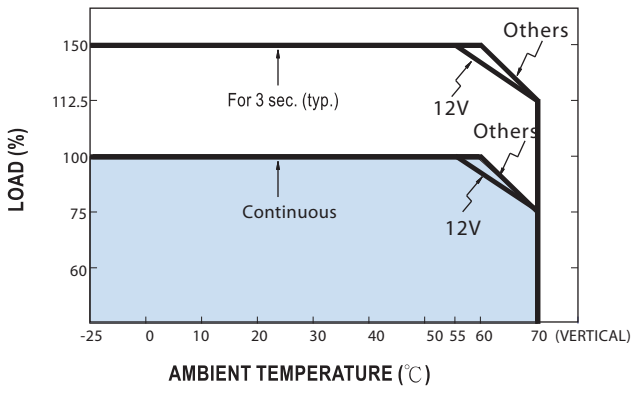
Contact Close	When the output voltage reaches the adjusted output voltage.
Contact Open	When the output voltage drop below 90% output voltage.
Contact Ratings (max.)	30V/1A resistive load

Block Diagram

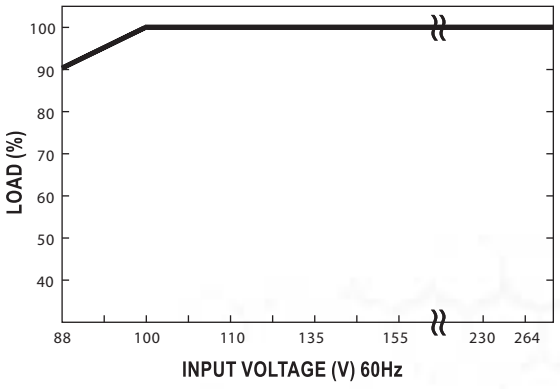


Peak Loading

Derating Curve



Output Derating VS Input Voltage



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