PARALLEL

PS-C480P Series
With Parallel Function
Specifications

Features:

- High efficiency 94% and low power dissipation
- 150% peak load capability
- Built-in active PFC function, PF>0.94
- Protections: Short Circuit / Overload / Over Voltage / Overtemperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- DIN rail mountable
- Current sharing up to 380W (1+7)
- 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-C480P24	PS-C480P48
OUTPUT	DC VOLTAGE	24V	48V
	RATED CURRENT	20A	10A
	CURRENT RANGE	0 ~ 20A	0 ~ 10A
	RATED POWER	480W	480W
	PEAK CURRENT	30A	15A
	PEAK POWER	720W (3 sec.)	
		3 seconds peak power max. and the average output power should not exceed the rate power	
	RIPPLE & NOISE (max)	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	24 ~ 28V	48 ~ 55V
	VOLTAGE TOLERANCE	±1.2%	±1.0%
		Tolerance: includes set up tolerance, line regulation and load regulation.	
	LINE REGULATION	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%
INPUT	SETUP, RISE, HOLD UP TIME	1500ms, 150ms, 14ms / 230VAC	3000ms, 150ms / 115VAC at full load
	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC	
		Derating may be needed under low input voltages, please check the derating curve for more detail	
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR (Typ.)	0.94 / 230VAC 0.99 / 115VAC at full load	
	EFFICIENCY (Typ.)	94%	
		After 30 minutes of burn-in.	
	AC CURRENT (max.)	5A / 115VAC 2.5A / 230VAC	
	INRUSH CURRENT (Typ.)	40A / 115VAC 80A / 230VAC	
	LEAKAGE CURRENT	≤ 0.6 mA / 240VAC	
PROTECTION	OVERLOAD	Normally works within 110 ~ 150% rated output power for more than 3 seconds and then shut down overvoltage with auto-recovery ≥ 150% rated power, constant current limiting with auto-recovery within 2 seconds and shut down overvoltage after 2 seconds	
	OVERVOLTAGE	29 ~ 33V	56 ~ 65V
		Protection type: Shut down overvoltage with auto-recovery on re-power on to recovery	
	OVERTEMPERATURE	105°C ± 5°C (TSW: detect on heat sink of power switch)	
		Protection type: Shut down overvoltage, re-power automatically after temperature goes down	
	CURRENT SHARING	Please see function diagram	
	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	112.9K hrs min. MIL-HDBK-217K (25°C)	
	DIMENSION	85.5x125.2x128.5mm (WxHxD)	
	PACKING	1.6Kg; 8pcs / 13.8Kg / 0.9CUFT	
		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.

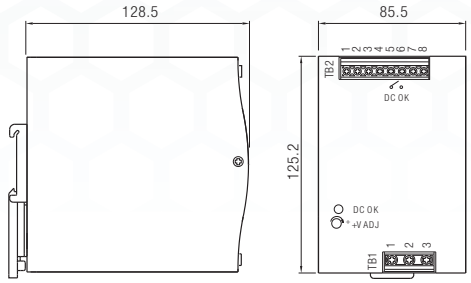
Mechanical Specification

Terminal Pin No. Assignment (TB1)

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

Terminal Pin No. Assignment (TB2)

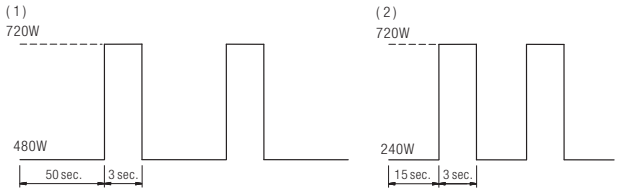
Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact
7	P+ (current share)
8	P- (current share)



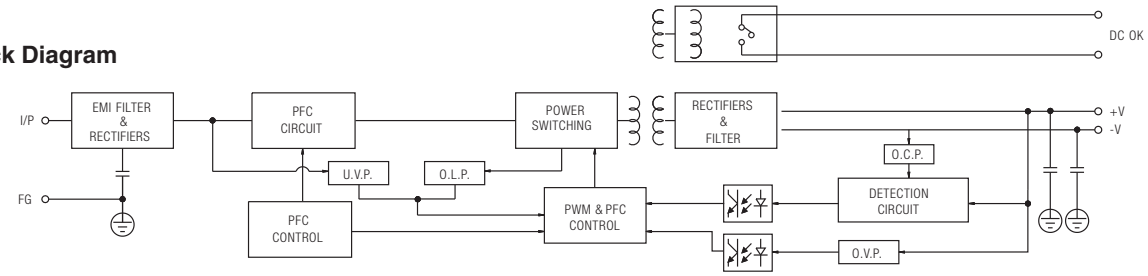
DC OK Relay Contact

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

Peak Loading

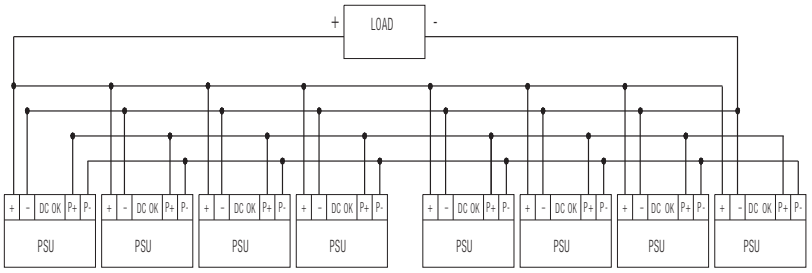


Block Diagram

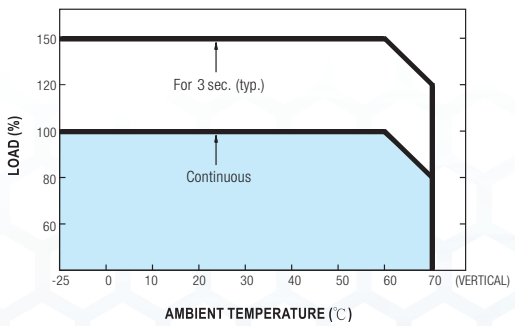


Function Diagram

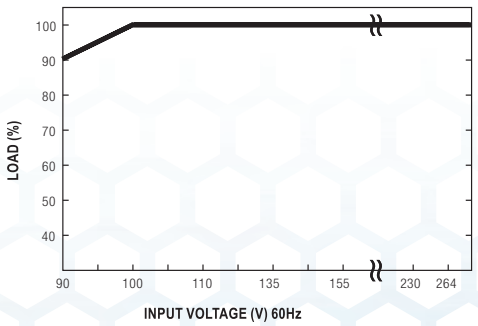
1. Current sharing
(1)Parallel operation is available by connecting the units shown as below (P+,P- are connected mutually in parallel):
(2)The voltage difference among each output should be minimized that less than 2% is required.
(3)The total output current must not exceed the value determined by the following equation (Output current at parallel operation) =(The rated current per unit) x (Number of unit) x 0.9.
(4) In parallel operation 8 units is the maximum, please consult the manufacture for other applications.
(5) When in parallel operation, the minimum output load should be greater than 3% of total output load.
(Min. load > 3% rated current per unit x number of unit)



Derating Curve



Output Derating VS Input Voltage



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

Mouser Electronics

Authorized Distributor

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PS-C480P48 PS-C480P24