PST-480 Series
Specifications

Features:
- Three-Phase AC 340 ~ 550V wide range input
- High efficiency 89% and low dissipation
- Protections: Short Circuit / Overload / Over Voltage / Overtemperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- DIN rail mountable
- UL 508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test
- 3 year warranty

OUTPUT

Cat. No.	PST-48024	PST-48048
DC VOLTAGE	24V	48V
RATED CURRENT	20A	10A
CURRENT RANGE	0 ~ 20A	0 ~ 10A
RATED POWER	480W	480W
RIPPLE & NOISE (max)	80mVp-p	80mVp-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	±1.0%	±1.0%
	Tolerance: includes set up tolerance, line regulation and load regulation.	
LINE REGULATION	±0.5%	±0.5%
LOAD REGULATION	±0.5%	±0.5%
SETUP, RISE, HOLD UP TIME	1200ms, 40ms, 16ms / 400VAC; 800ms, 40ms, 35ms / 500VAC at full load	

INPUT

VOLTAGE RANGE	Three Phase 340 ~ 550VAC (Dual Phase operation possible) 480 ~ 780VDC Dual phase operation: derating of 20% is required	
FREQUENCY RANGE	47 ~ 63Hz	
EFFICIENCY (Typ.)	89%	90%
AC CURRENT	1.7A / 400VAC; 1.3A / 500VAC	
INRUSH CURRENT (Typ.)	COLD START 50A	
LEAKAGE CURRENT	≤ 3.5mA / 530VAC	

PROTECTION

OVERLOAD	105 ~ 150% rated output power	
	Protection type: Constant current limiting, recovers automatically after fault condition is removed	
OVERVOLTAGE	30 ~ 36V	59 ~ 66V
	Protection type: Shut down overvoltage, re-power on to recover	
OVERTEMPERATURE	110°C ± 5°C (TSW) detect on heat sink of power switch	
	Protection type: Shut down overvoltage, recovers automatically after temperature goes down	

ENVIRONMENT

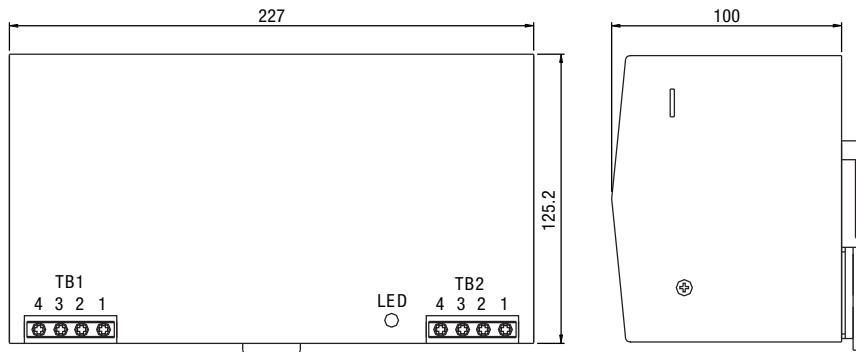|	
WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH
TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60 min. each long X,Y, Z axes
MOUNTING	Compliance to IEC60068-2-6

SAFETY & EMC

SAFETY STANDARDS	UL508 EN60950-1 compliant UL60950-1
WITHSTAND VOLTAGE	I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 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
HARMONIC CURRENT	Compliance to EN61000-3-2,-3
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.

OTHERS

MTBF	91.1K hrs min. MIL-HDBK-217K (25°C)
DIMENSION	227x125.2x100mm (WxHxD)
PACKING	2.5Kg; 6pcs / 16Kg / 1.75CUFT
	All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.

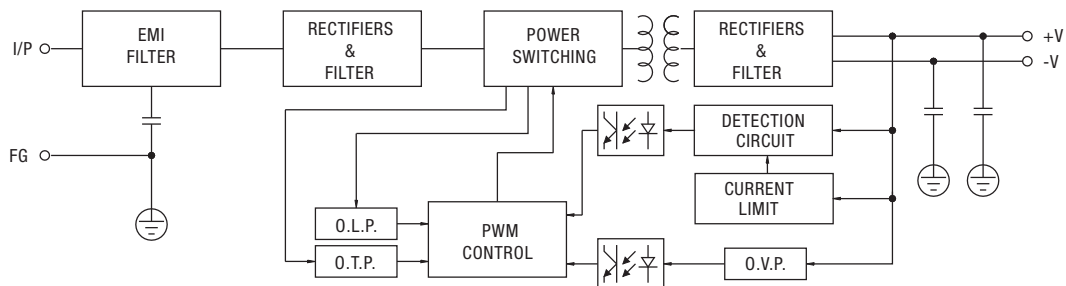For the latest on Altech Power Supply specifications please visit www.altechcorp.com/power.

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Mechanical Specification

227

100

125.2

TB1
4 3 2 1

LED

TB2
4 3 2 1

TB1 Terminal Pin. No Assignment

Pin No.	Assignment
1	AC/L1
2	AC/L2
3	AC/L3
4	FG ⏚

TB2 Terminal Pin. No Assignment

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

Block Diagram

I/P — EMI FILTER — RECTIFIERS & FILTER — POWER SWITCHING — RECTIFIERS & FILTER — +V / -V

FG

DETECTION CIRCUIT

CURRENT LIMIT

O.L.P.
O.T.P.
PWM CONTROL
O.V.P.

Derating Curve

LOAD (%)

AMBIENT TEMPERATURE (℃)

-20 0 10 20 30 40 50 60 70 (VERTICAL)
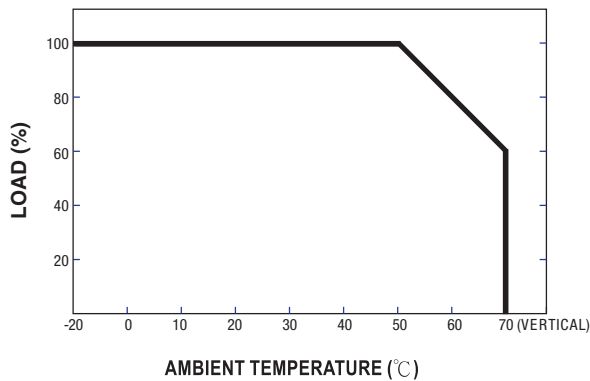
Output Derating VS Input Voltage

LOAD (%)

Three phase operation

Dual phase operation

INPUT VOLTAGE (V) 60Hz

340 355 370 385 400 415 430 460 475 490 505 520 550
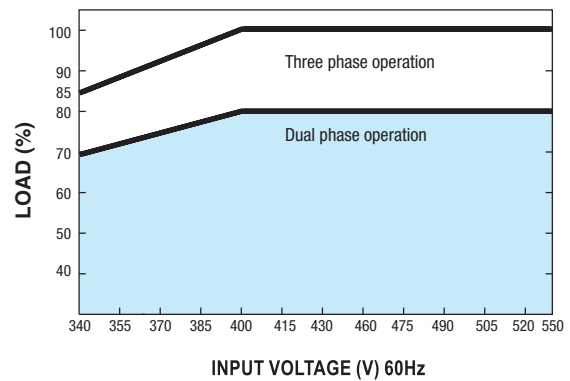
Note: All dimensions are in millimeters, to convert to inches multiply by 0.03937.