



PST-960 Series Specifications

PARALLEL



Features:

- Three-Phase AC 340 ~ 550V wide range input
- High efficiency 91% and low dissipation
- Protections: Short Circuit / Overload / Over Voltage / Overtemperature
- Optional parallel function(1+1)
- Cooling by free air convection
- 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-96024 / PST-960P24* | PST-96048 / PST-960P48* |
|----------|-------------------------|-------------------------|
|----------|-------------------------|-------------------------|

| | | |
|---|----------------------------|---|
| DC VOLTAGE | 24V | 48V |
| RATED CURRENT | 40A | 20A |
| CURRENT RANGE | 0 ~ 40A | 0 ~ 20A |
| RATED POWER | 960W | 960W |
| RIPPLE & NOISE (max) | 80mVp-p | 80mVp-p |
| <small>Ripple & noise are measured at 20MHz of bandwidth by using a 12 twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor.</small> | | |
| 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 | 200ms, 60ms, 14ms / 400VAC | 200ms, 60ms, 30ms / 500VAC at full load |

INPUT

| | | |
|--|---|---------------|
| VOLTAGE RANGE | Three Phase 340 ~ 550VAC (Dual Phase operation possible in connecting L1, L3, FG) | |
| <small>Dual phase operation (connecting L1, L3, FG) is allowed under certain derating to output load. Please refer to the derating curves for details.</small> | | |
| FREQUENCY RANGE | 47 ~ 63Hz | |
| EFFICIENCY (Typ.) | 91% | 92% |
| AC CURRENT | 2A / 400VAC; | 1.6A / 500VAC |
| INRUSH CURRENT (Typ.) | COLD START 50A | |
| LEAKAGE CURRENT | ≤ 3.5 mA / 530VAC | |

PROTECTION

| | | |
|---|--|----------|
| OVERLOAD | 105 ~ 125% rated output power | |
| <small>Protection type: Constant current limiting, unit will shut down overvoltage after 3 sec., re-power on to recover</small> | | |
| OVERVOLTAGE | 30 ~ 36V | 59 ~ 66V |
| <small>Protection type: Shut down overvoltage, re-power on to recover</small> | | |
| OVERTEMPERATURE | 110°C ± 5°C (TSW1) detect on heat sink of power transistor | |
| 85°C ± 5°C (TSW2) detect on heat sink of power diode | | |
| <small>Protection type: Shut down overvoltage, recovers automatically after temperature goes down</small> | | |

ENVIRONMENT

| | | |
|-------------------------|---|--|
| WORKING TEMP. | -20 ~ +60°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 | |
| <small>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.</small> | | |

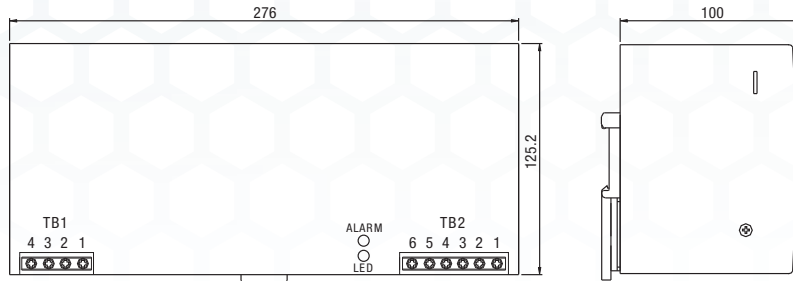
OTHERS

| | | |
|---|--------------------------------------|--|
| MTBF | 122.5K hrs min. MIL-HDBK-217K (25°C) | |
| DIMENSION | 276x125.2x100mm (WxHxD) | |
| PACKING | 3.3Kg; 4pcs / 14.2Kg / 1.14CUFT | |
| <small>All parameters NOT specially mentioned are measured at 400VAC input, rated load and 25°C of ambient temperature.</small> | | |

*Special order required.

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

Mechanical Specification



TB1 Terminal Pin. No Assignment

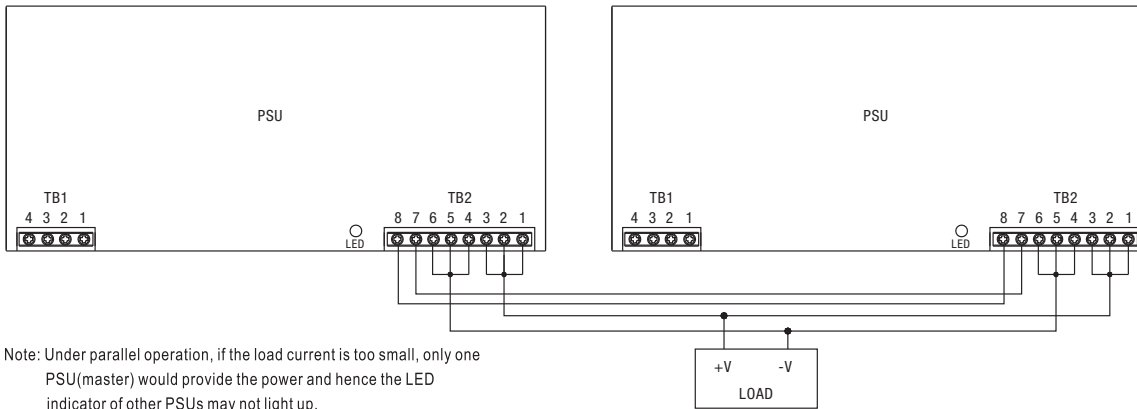
| Pin No. | Assignment |
|---------|------------|
| 1 | ACL1 |
| 2 | ACL2 |
| 3 | ACL3 |
| 4 | FG ⊕ |

TB2 Terminal Pin. No Assignment

| Pin No. | Assignment |
|---------|-------------------|
| 1,2,3 | DCOUTPUT+V |
| 4,5,6 | DCOUTPUT - V |
| 7 | P (Current Share) |
| 8 | P (Current Share) |

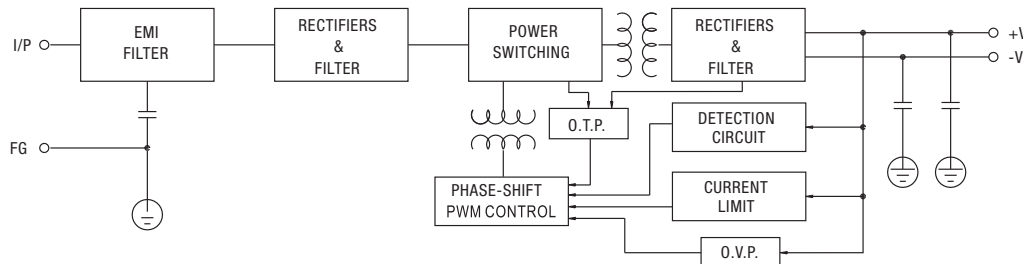
} Parallel Only

Optional Parallel Function (1+1) - (Special order required)

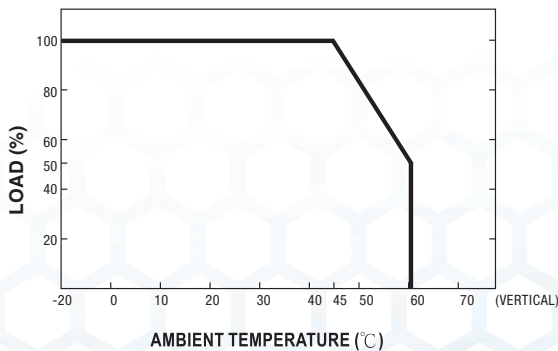


Note: Under parallel operation, if the load current is too small, only one PSU(master) would provide the power and hence the LED indicator of other PSUs may not light up.

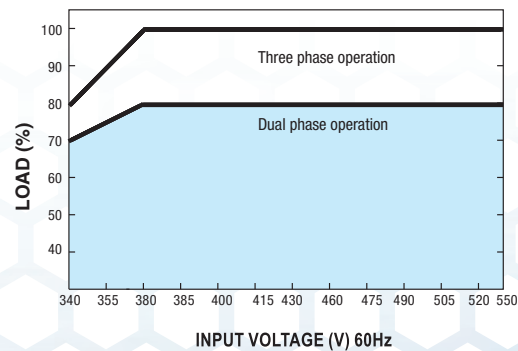
Block Diagram



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