



Features:

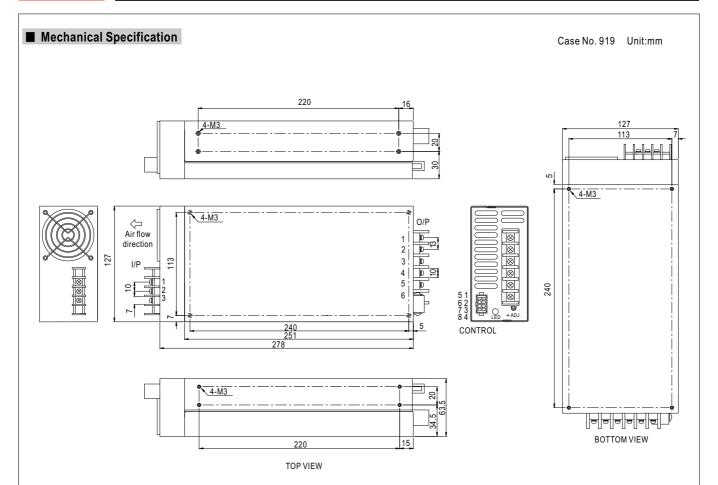
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Foced air cooling by built-in DC fan
- Current sharing up to 2000W(3+1)
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

SPECIFICATION



| MODEL | | PSP-500-5 | PSP-500-12 | PSP-500-13.5 | PSP-500-15 | PSP-500-24 | PSP-500-27 | PSP-500-48 |
|-------------|--|--|--|---|---------------------|-----------------------|---------------------|---------------------|
| | DC VOLTAGE | 5V | 12V | 13.5V | 15V | 24V | 27V | 48V |
| | RATED CURRENT | 80A | 41.5A | 37A | 33A | 20.8A | 18.5A | 10.5A |
| | CURRENT RANGE | 0 ~ 80A | 0 ~ 41.5A | 0~37A | 0 ~ 33A | 0 ~ 20.8A | 0 ~ 18.5A | 0 ~ 10.5A |
| | RATED POWER | 400W | 498W | 499.5W | 495W | 499.2W | 499.5W | 504W |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 200mVp-p |
| OUTPUT | VOLTAGE ADJ. RANGE | 4.75 ~ 5.5V | 10 ~ 13.2V | 12 ~ 15V | 13.5 ~ 18V | 20 ~ 26.4V | 24 ~ 30V | 41 ~ 56V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.3% | ±0.3% | ±0.3% | ±0.2% | ±0.2% | ±0.2% |
| | LOAD REGULATION | ±2.0% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE, HOLD TIME | 1500ms, 50ms, 15 | ims at full load | | | | | |
| | VOLTAGE RANGE Note.6 | 90 ~ 264VAC | 127 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | |
| | POWER FACTOR | 0.95/230VAC | 0.98/100VAC at fu | ıll load | | | | |
| INPUT | EFFICIENCY (Typ.) | 76% | 82% | 82% | 82% | 84% | 84% | 86% |
| | AC CURRENT | 7A/115AVC | 3.5A/230VAC | | | • | | |
| | INRUSH CURRENT (max.) | 20A/115VAC | 40A/230VAC | | | | | |
| | LEAKAGE CURRENT | <1mA / 240VAC | | | | | | |
| | | 110 ~ 125% rated | output power | | | | | |
| | OVER LOAD | Protection type : 0 | Constant current lin | niting, recovers aut | omatically after fa | ult condition is rem | noved | |
| | OVER VOLTAGE | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 15.5 ~ 18.2V | 18 ~ 21V | 27.6 ~ 32.4V | 31 ~ 36.5V | 57.6 ~ 67.2V |
| PROTECTION | | Protection type : S | Shut down o/p volta | ge, re-power on to | recover | 1 | | _ |
| | | RTH2 ≥ 95°C Detect on heatsink of Q1,Q7 power transistor & L3 output choke | | | | | | |
| | OVER TEMPERATURE | Protection type: Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | |
| FUNCTION | REMOTE CONTROL | RC+/RC-: 0 ~ 0.8 | /=power on ; 4 ~ 10 | V=power off | sink current <4 ~ | 10mA | | |
| | WORKING TEMP. | -10 ~ +60°C (Refer to output load derating curve) | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH with 30CFM forced air non-condensing | | | | | | |
| ENVIRONMENT | STORAGE TEMP., HUMIDITY | -20 ~ +85℃, 10 ~ 95% RH | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0~50°C) | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 1 | Omin./1cycle, 60mi | n. each along X, Y, | Zaxes | | | |
| | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 Approved | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC | I/P-FG:1.5KVAC | O/P-FG:0.5KVAC | ; | | | |
| SAFETY & | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, C | /P-FG:100M Ohms | s/500VDC | | | | |
| EMC | EMI CONDUCTION & RADIATION | Compliance to EN | 55022 (CISPR22) | Class B | | | | |
| (Note 4) | HARMONIC CURRENT | Compliance to EN | 61000-3-2,-3 | | | | | |
| | EMS IMMUNITY | Compliance to EN | 61000-4-2,3,4,5,6 | ,8,11; ENV50204, E | EN55024, Light inc | lustry level, criteri | ia A | |
| | MTBF | 130.1K hrs min. | MIL-HDBK-217F | (25℃) | | | | |
| OTHERS | DIMENSION | 278*129*63.5mm | (L*W*H) | | | | | |
| | PACKING | 2.6Kg; 6pcs/15.7k | <u> </u> | | | | | |
| NOTE | All parameters NOT special Ripple & noise are measure Tolerance: includes set up The power supply is consided EMC directives. In parallel connection, maybare. | d at 20MHz of ba tolerance, line reg ered a component | ndwidth by using a ulation and load re which will be insta | a 12" twisted pair-vegulation. alled into a final ed | wire terminated w | ith a 0.1uf & 47uf | parallel capacitor. | hat it still meets |
| | 6. Derating may be needed ur | ider low input volta | ages. Please chec | k the derating curv | e for more details | S. | File Name: PSE | P-500-SPEC 2005-02- |





AC Input Terminal Pin. No. Assignment

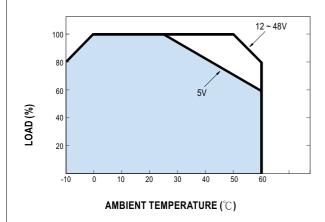
| Pin No. | Assignment | | | | | |
|---------|------------|--|--|--|--|--|
| 1 | AC/L | | | | | |
| 2 | AC/N | | | | | |
| 3 | FG ± | | | | | |

| Do output forminari ini. No | | | | | |
|-----------------------------|--------------|--|--|--|--|
| Pin No. | Assignment | | | | |
| 1~3 | DC OUTPUT +V | | | | |
| 4~6 | DC OUTPUT -V | | | | |

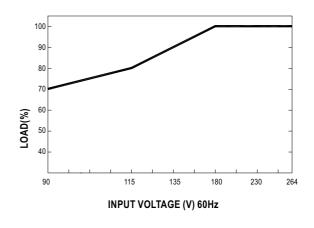
DC Output Terminal Pin. No Assignment Control Pin. No Assignment : MOLEX 5559-NP uses 5558 male crimp terminal

| Pin No. | Assignment | Pin No. | Assignment | Mating connector | Terminal | |
|---------|------------------|---------|-----------------------|------------------|---------------------|--|
| 1 | P(Current share) | | NC | | MOLEX 5556 | |
| 2 | -S | 6 | PF(Power fail signal) | MOLEX 5557-NR | Female crimp | |
| 3 | G | 7 | +S | WOLLX COOT WIN | Terminal receptacle | |
| 4 | RC- | 8 | RC+ | | receptacle | |

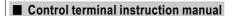
■ Derating Curve

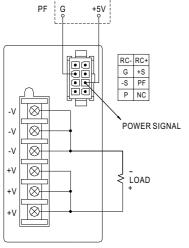


■ Output Derating VS Input Voltage



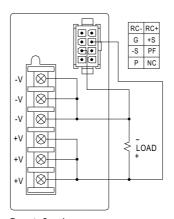




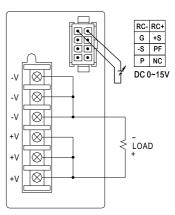


Power Fail Signal

PF Signal is the voltage difference between "G" and "PF" pin output



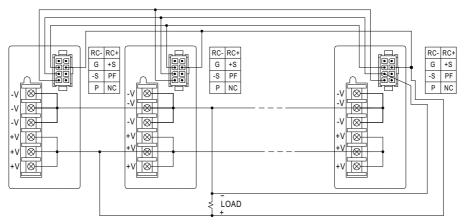
Remote Sensing



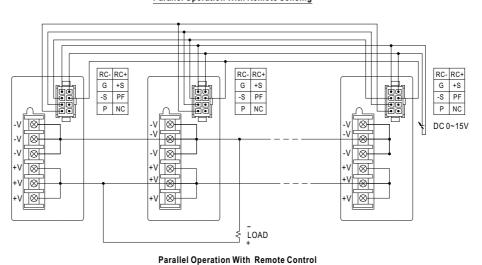
Remote Control

Power ON: When VRC+,RC-=0 \sim 0.8V or Open Power OFF: When VRC+,RC-=4 \sim 10V

■ Parallel Operation



Parallel Operation With Remote Sensing





SPECIFICATION

EMC directives.



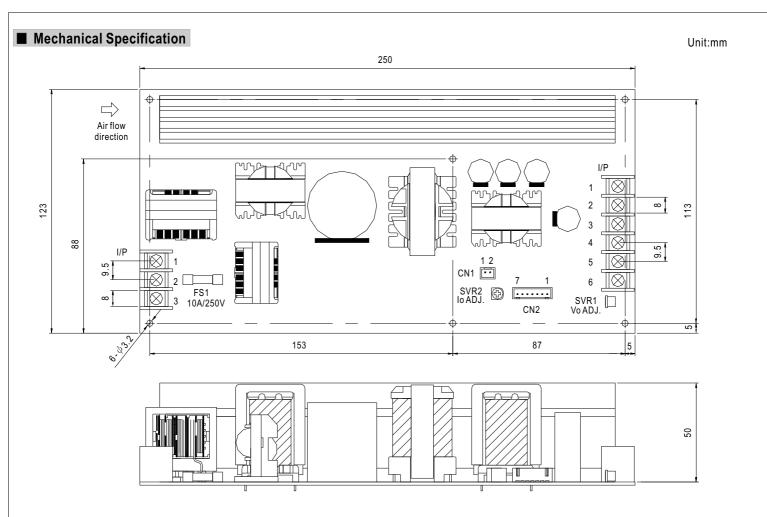
Features:

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Foced air cooling by built-in DC fan
- Current sharing up to 2000W(3+1)
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

| MODEL | | PSP-500-5P | PSP-500-12P | PSP-500-13.5P | PSP-500-15P | PSP-500-24P | PSP-500-27P | PSP-500-48P | | |
|------------|--|---|--|---------------------|-------------------|--------------|-------------|--------------|--|--|
| | DC VOLTAGE | 5V | 12V | 13.5V | 15V | 24V | 27V | 48V | | |
| | RATED CURRENT | 80A | 41.5A | 37A | 33A | 20.8A | 18.5A | 10.5A | | |
| | CURRENT RANGE | 0 ~ 80A | 0 ~ 41.5A | 0 ~ 37A | 0 ~ 33A | 0 ~ 20.8A | 0 ~ 18.5A | 0 ~ 10.5A | | |
| | RATED POWER | 400W | 498W | 499.5W | 495W | 499.2W | 499.5W | 504W | | |
| TDIIT | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 200mVp-p | | |
| OUTPUT | VOLTAGE ADJ. RANGE | 4.75 ~ 5.5V | 10 ~ 13.2V | 12 ~ 15V | 13.5 ~ 18V | 20 ~ 26.4V | 24 ~ 30V | 41 ~ 56V | | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | | |
| | LINE REGULATION | ±0.5% | ±0.3% | ±0.3% | ±0.3% | ±0.2% | ±0.2% | ±0.2% | | |
| | LOAD REGULATION | ±2.0% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | | |
| | SETUP, RISE, HOLD TIME | 1500ms, 50ms, 1 | 5ms at full load | • | | | · | | | |
| | VOLTAGE RANGE Note.5 | 90 ~ 264VAC | 127 ~ 370VDC | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | |
| | POWER FACTOR | 0.95/230VAC | 0.98/100VAC at | full load | | | | | | |
| NPUT | EFFICIENCY (Typ.) | 76% | 82% | 82% | 82% | 84% | 84% | 86% | | |
| | AC CURRENT | 7A/115AVC | 3.5A/230VAC | | | | | · | | |
| | INRUSH CURRENT (max.) | 20A/115VAC | 40A/230VAC | | | | | | | |
| | LEAKAGE CURRENT | <1mA / 240VAC | <1mA / 240VAC | | | | | | | |
| | 0./50.4.04.0 | 110 ~ 125% rated output power | | | | | | | | |
| | OVER LOAD | Protection type: Constant current limiting, recovers automatically after fault condition is removed | | | | | | | | |
| DOTECTION | OVED VOLTACE | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 15.5 ~ 18.2V | 18 ~ 21V | 27.6 ~ 32.4V | 31 ~ 36.5V | 57.6 ~ 67.2V | | |
| PROTECTION | OVER VOLTAGE | Protection type : Shut down o/p voltage, re-power on to recover | | | | | | | | |
| | OVED TEMPEDATURE | RTH2≥95°C Detect on heatsink of Q1,Q7 power transistor & L3 output choke | | | | | | | | |
| | OVER TEMPERATURE | Protection type : | Protection type: Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | | |
| UNCTION | REMOTE CONTROL | RC+/RC-: 0 ~ 0.8 | V=power on ; $4 \sim 1$ | 0V=power off | sink current <4 ~ | 10mA | | | | |
| | WORKING TEMP. | -10 ∼ +60°C (Refer to output load derating curve) | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH with 30CFM forced air non-condensing | | | | | | | | |
| NVIRONMENT | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 5 | 60°C) | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 1 | 10min./1cycle, 60m | in. each along X, Y | , Z axes | | | | | |
| | SAFETY STANDARDS | UL1950, TUV EN | UL1950, TUV EN60950-1 Approved | | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | | | | | | | |
| SAFETY & | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, | D/P-FG:100M Ohm | ns/500VDC | | | | | | |
| EMC | EMI CONDUCTION & RADIATION | Compliance to E | N55022 (CISPR22) |) Class B | | | | | | |
| Note 4) | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | | | | | | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, Light industry level, criteria A | | | | | | | | |
| | MTBF | 130.1K hrs min. MIL-HDBK-217F (25℃) | | | | | | | | |
| OTHERS | DIMENSION | 250*123*50mm (| L*W*H) | | | | | | | |
| | PACKING | 1.3Kg; 6pcs/7.8k | (g/0.89CUFT | | | | | | | |
| NOTE | 2. Ripple & noise are measure3. Tolerance : includes set up | y mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. d at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. ered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets | | | | | | | | |

5. Derating may be needed under low input voltages. Please check the derating curve for more details.





AC Input Terminal Pin. No. Assignment

| Pin No. | Assignment |
|---------|------------|
| 1 | AC/L |
| 2 | AC/N |
| 3 | FG ≟ |

DC Output Terminal Pin. No Assignment

| Pin No. | Assignment |
|---------|--------------|
| 1~3 | DC OUTPUT +V |
| 4~6 | DC OUTPUT -V |

Connector Pin. No. Assignment(CN1): JST B2B-XH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|----------------|-------------------|
| 1 | GND | JST XHP | JST SXH-001T-P0.6 |
| 2 | +12V | or equivalent | or equivalent |

Connector Pin. No. Assignment (CN2): JST B7B-XH or equivalent

| Pin No. | Assignment | Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------------|---------|-------------------|----------------|-------------------|
| 1 | P(Current share) | 5 | Power fail signal | | |
| 2 | +\$ | 6 | RC+ | | JST SXH-001T-P0.6 |
| 3 | -S | 7 | RC- | or equivalent | or equivalent |
| 4 | GND | | | | |

■ Derating Curve

■ Output Derating VS Input Voltage

