



■ Features :

- Universal AC input/Full range
- ZVS new technology
- AC input active surge current limiting
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC ball bearing fan
- High power density 8.3W/inch³
- Output voltage can be trimmed between 20% ~ 110% rated value
- Current sharing up to 4500W(2+1)
- Alarm signal output
- Built-in 12V/0.1A auxiliary output for remote control
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

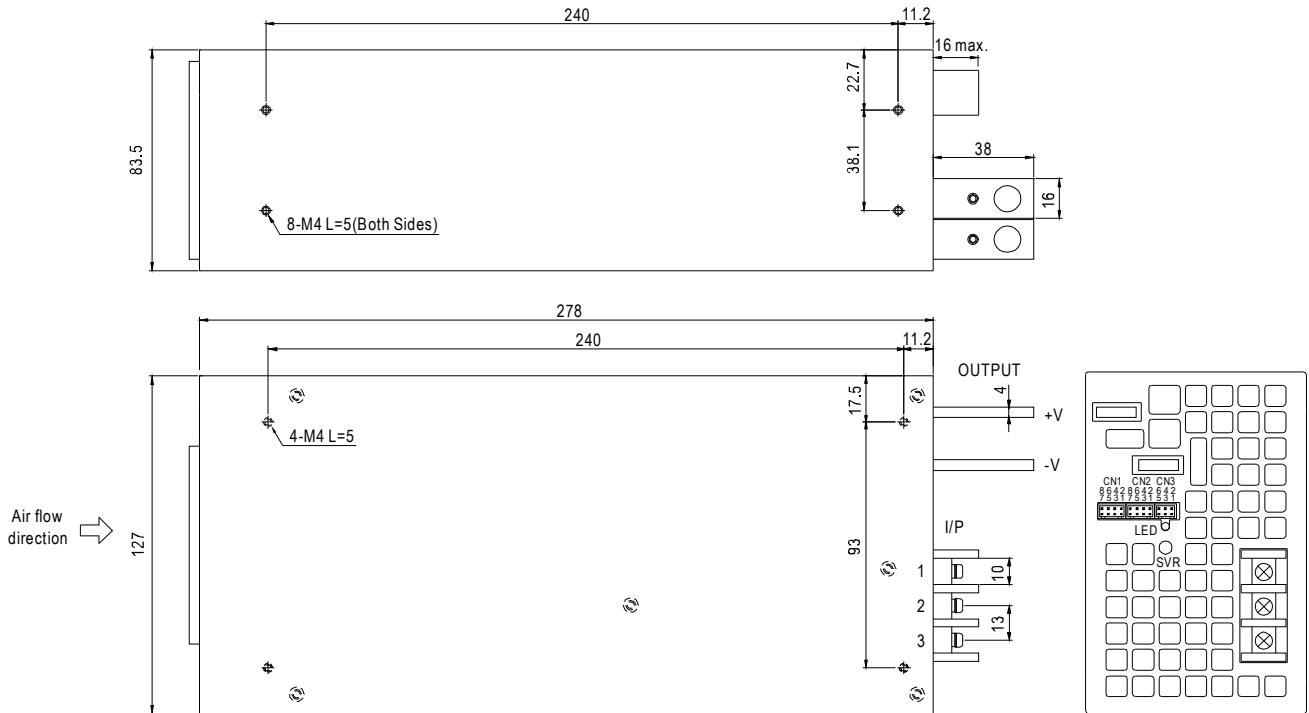


SPECIFICATION

| MODEL | SPV-1500-12 | SPV-1500-24 | SPV-1500-48 | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------|
| OUTPUT | DC VOLTAGE | 12V | 24V | 48V |
| | RATED CURRENT | 125A | 63A | 32A |
| | CURRENT RANGE | 0 ~ 125A | 0 ~ 63A | 0 ~ 32A |
| | RATED POWER | 1500W | 1512W | 1536W |
| | RIPPLE & NOISE (max.) Note.2 | 150mVp-p | 150mVp-p | 200mVp-p |
| | VOLTAGE ADJ. RANGE | ±5% typical adjustment by VR, 20% ~ 110% (typ.) adjustment by 1~6VDC external control signal | | |
| | VOLTAGE TOLERANCE Note.3 | ±1.0% | | |
| | LINE REGULATION | ±0.5% | | |
| | LOAD REGULATION | ±0.5% | | |
| | SETUP, RISE TIME | 1500ms, 100ms at full load | | |
| HOLD UP TIME (Typ.) | 10ms at full load | 14ms at full load | 16ms at full load | |
| INPUT | VOLTAGE RANGE Note.5 | 90 ~ 264VAC | 127 ~ 370VDC | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | POWER FACTOR (Typ.) | 0.95/230VAC | 0.98/115VAC at full load | |
| | EFFICIENCY (Typ.) | 86.5% | 90% | 90% |
| | AC CURRENT (Typ.) | 17A/115VAC | 8A/230VAC | |
| | INRUSH CURRENT (Typ.) | 30A/115VAC | 60A/230VAC | |
| | LEAKAGE CURRENT | <2.0mA / 240VAC | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | |
| | OVER VOLTAGE | 13.8 ~ 16.8V | 30 ~ 34.8V | 57.6 ~ 67.2V |
| | OVER TEMPERATURE | 105°C ±5°C (TSW2) detect on heatsink of power transistor Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | |
| FUNCTION | AUXILIARY POWER(AUX) | 12V@0.1A(Only for Remote ON/OFF control) | | |
| | REMOTE ON/OFF CONTROL | Please see the Function Manual | | |
| | ALARM SIGNAL OUTPUT | Please see the Function Manual | | |
| | OUTPUT VOLTAGE TRIM | 2.4 ~ 13.2V | 4.8 ~ 28V | 9.6 ~ 56V |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +70°C (Refer to "Derating Curve") | | |
| | WORKING HUMIDITY | 20~90% RH non-condensing | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | |
| | TEMP. COEFFICIENT | ±0.05%/°C (0 ~ 50°C) | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH | | |
| | EMC EMISSION | Compliance to EN55022 (CISPR22), EN61000-3-2,-3 | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A | | |
| OTHERS | MTBF | 109K hrs min. MIL-HDBK-217F (25°C) | | |
| | DIMENSION | 278*127*83.5mm (L*W*H) | | |
| | PACKING | 3.0Kg; 4pcs/13Kg/1.19CUFT | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 5. Derating may be needed under low input voltages. Please check the derating curve for more details. | | | |

Mechanical Specification

Case No.943A Unit:mm



AC Input Terminal Pin No. Assignment

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

Control Pin No. Assignment(CN1, CN2) : HRS DF 11-8DP-2DS or equivalent

| Pin No. | Assignment | Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|---------|-------------------|-----------------------------|------------------------------|
| 1 | RCG | 5,7 | -S | HRS DF 11-8DS or equivalent | HRS DF 11-**SC or equivalent |
| 2 | RC2 | 6 | LS(Current Share) | | |
| 3 | PV | 8 | +S | | |
| 4 | PS | | | | |

RCG: Remote ON/OFF Ground -S: -Remote Sensing
 RC2: Remote ON/OFF LS: Load Share
 PV: Output voltage external control +S: +Remote Sensing
 PS: Reference voltage terminal, PS and PV are connected when shipping

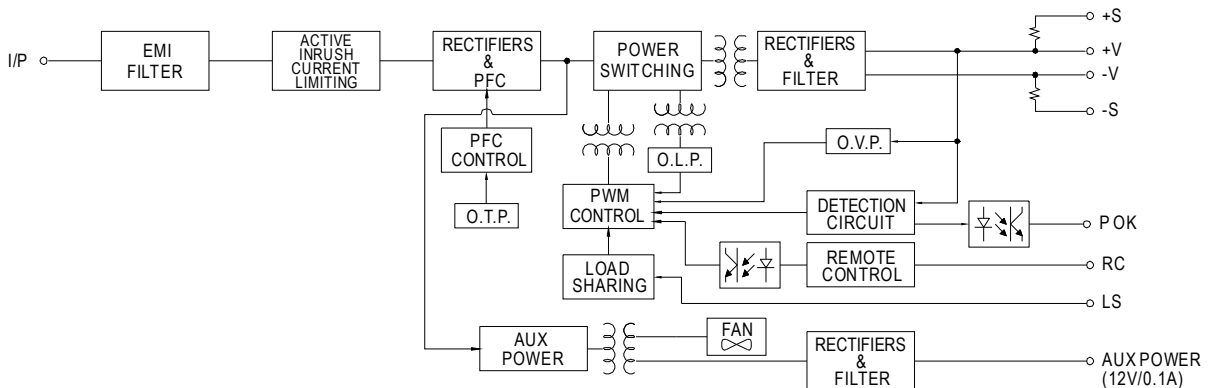
Control Pin No. Assignment(CN3) : HRS DF 11-6DP-2DS or equivalent

| Pin No. | Assignment | Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|---------|------------|-----------------------------|------------------------------|
| 1 | P OK GND | 4 | AUXG | HRS DF 11-6DS or equivalent | HRS DF 11-**SC or equivalent |
| 2 | P OK | 5 | RC1 | | |
| 3 | RCG | 6 | AUX | | |

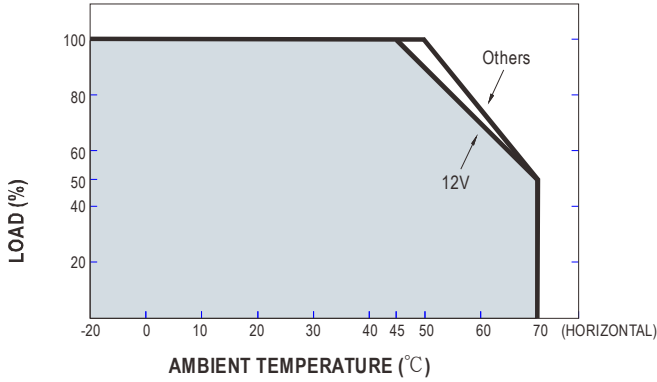
P OK GND: Power OK Ground AUXG: Auxiliary Ground
 P OK: Power OK Signal RC1: Remote ON/OFF
 RCG: Remote ON/OFF Ground AUX: Auxiliary Output

Block Diagram

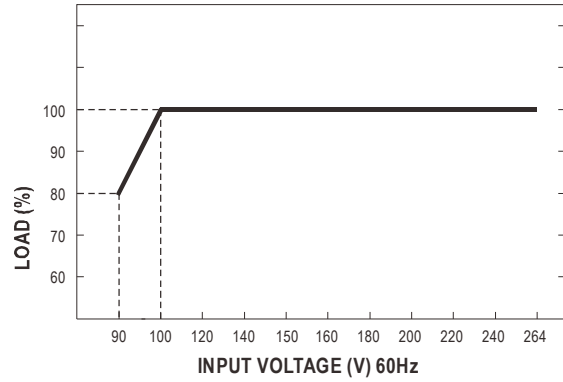
PFC fosc : 70KHz
 PWM fosc : 100KHz



Derating Curve



Static Characteristics



Function Manual

1.Remote ON/OFF

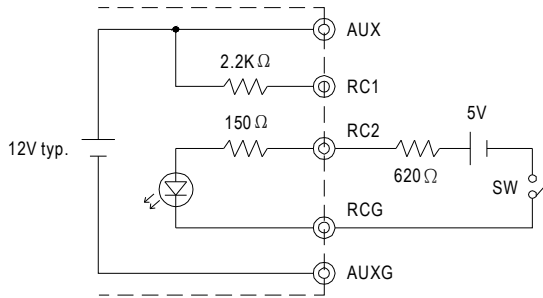
- (1) Remote ON/OFF control becomes available by applying voltage in CN1 & CN2 & CN3
- (2) Table 1.1 shows the specification of Remote ON/OFF function
- (3) Fig. 1.2 shows the example to connect Remote ON/OFF control function

Table 1.1 Specification of Remote ON/OFF

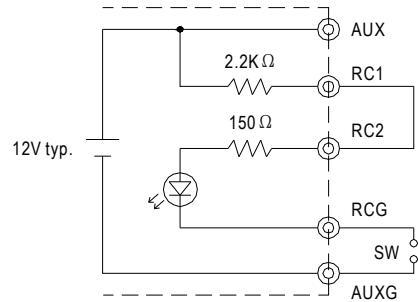
| Connection Method | Fig. 1.2(A) | Fig. 1.2(B) | Fig. 1.2(C) |
|-------------------|-------------|-------------|-------------|
| SW Logic | Output on | SW Open | SW Close |
| | Output off | SW Close | SW Open |

Fig.1.2 Examples of connecting remote ON/OFF

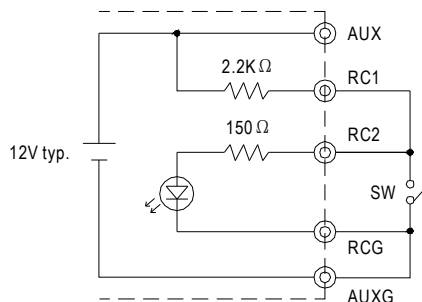
(A) Using external voltage source



(B) Using internal 12V auxiliary output



(C) Using internal 12V auxiliary output



2. Alarm Signal Output

- (1) Alarm signal is sent out through "P OK" & "P OK GND" pins
- (2) An external voltage source is required for this function. The maximum applied voltage is 50V and the maximum sink current is 10mA
- (3) Table 2.1 explains the alarm function built-in the power supply

| Function | Description | Output of alarm(P OK) |
|----------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| P OK | The signal is "Low" when the power supply is above 15% of the rated output voltage-Power OK | Low (0.5V max at 10mA) |
| | The signal turns to be "High" when the power supply is under 15% of the rated output voltage-Power Fail | High or open (External applied voltage 10mA max.) |

Table 2.1 Explanation of alarm function

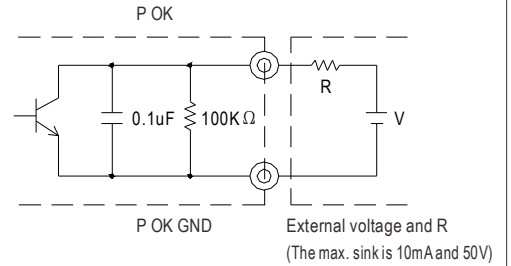
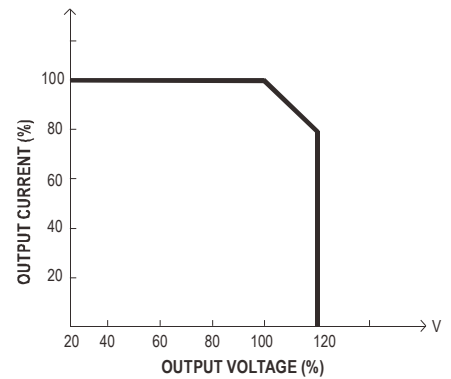
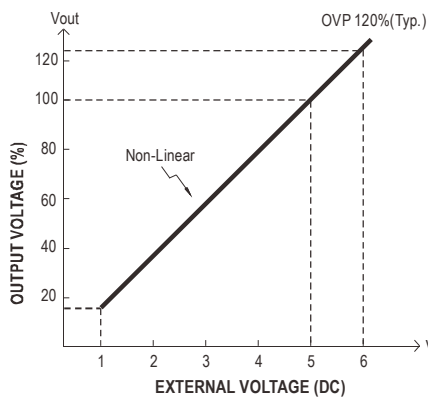
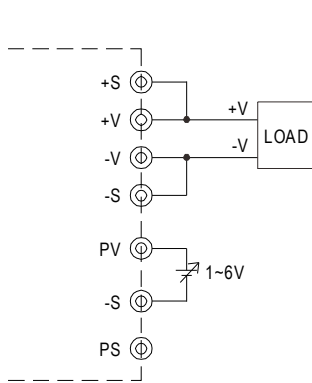


Fig. 2.2 Internal circuit of P OK (Open collector method)

3. External Voltage Control



Note: (1) Reference voltage terminal, PS and PV are connected when shipping
 (2) +S & +V, -S & -V also need to be connected on CN1 or CN2.

4. Current Sharing

- (1) Parallel operation is available by connecting the units shown as below (+S, -S and LS are connected mutually in parallel):
- (2) The voltage difference among each output should be minimized that less than 0.2V 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 3 units is the maximum, please consult the manufacturer for other applications
- (5) When remote sensing is used in parallel operation, the sensing wire must be connected only to the master unit

Note: In parallel connection, maybe only one unit (master) operate if the total output load is less than 5% of rated load condition.
 The other PSUs (slaves) may go into standby mode and their output LEDs will not turn on.
 (6) Under parallel operation, the "output voltage trim" function is not available.

