



Наличие и актуальные цены на

**SPV-1500-12**

<https://www.mean-well.ru/store/SPV-1500-12/>



## ■ 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/inch<sup>3</sup>
- 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

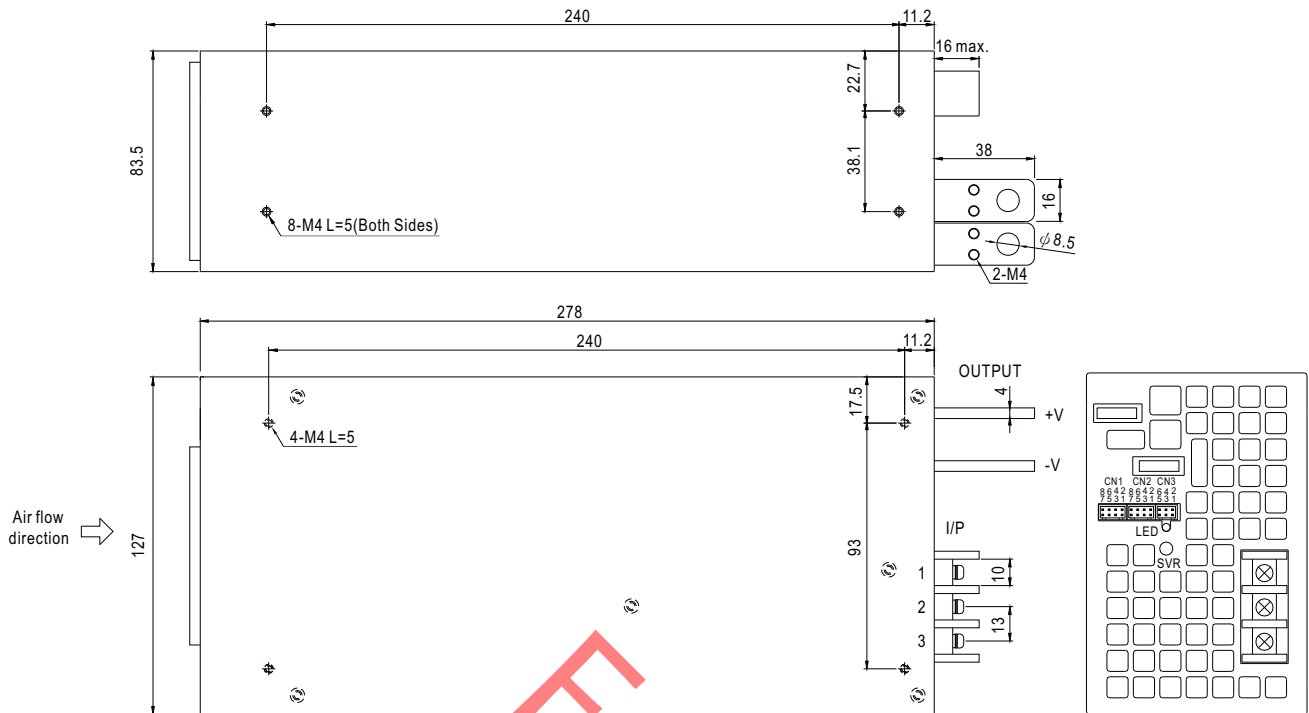


## SPECIFICATION

| 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.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 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 <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ± 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 <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 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<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 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℃ (Refer to "Derating Curve")                                                                                                |  |                          |            |                   |              |  |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20~90% RH non-condensing                                                                                                              |  |                          |            |                   |              |  |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | -40 ~ +85℃, 10 ~ 95% RH non-condensing                                                                                                |  |                          |            |                   |              |  |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ±0.05%/℃ (0 ~ 50℃)                                                                                                                    |  |                          |            |                   |              |  |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                          |  |                          |            |                   |              |  |
| SAFETY & EMC<br>(Note 5) | 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℃/ 70% RH                                                                              |  |                          |            |                   |              |  |
|                          | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance to EN55032 (CISPR32), 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℃)                                                                                                     |  |                          |            |                   |              |  |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 278*127*83.5mm (L*W*H)                                                                                                                |  |                          |            |                   |              |  |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.0Kg; 4pcs/13Kg/1.19CUFT                                                                                                             |  |                          |            |                   |              |  |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltages. Please check the derating curve for more details.<br>5. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 720mm*360mm metal plate with 1mm of thickness. 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 <a href="http://www.meanwell.com">http://www.meanwell.com</a> )<br>6. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). |                                                                                                                                       |  |                          |            |                   |              |  |

Case No.943A Unit:mm

### Mechanical Specification



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 DF11-8DP-2DS or equivalent

| Pin No. | Assignment | Pin No. | Assignment        | Mating Housing             | Terminal                    |
|---------|------------|---------|-------------------|----------------------------|-----------------------------|
| 1       | RCG        | 5,7     | -S                | HRS DF11-8DS or equivalent | HRS DF11-**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 DF11-6DP-2DS or equivalent

| Pin No. | Assignment | Pin No. | Assignment | Mating Housing             | Terminal                    |
|---------|------------|---------|------------|----------------------------|-----------------------------|
| 1       | P OK GND   | 4       | AUXG       | HRS DF11-6DS or equivalent | HRS DF11-**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

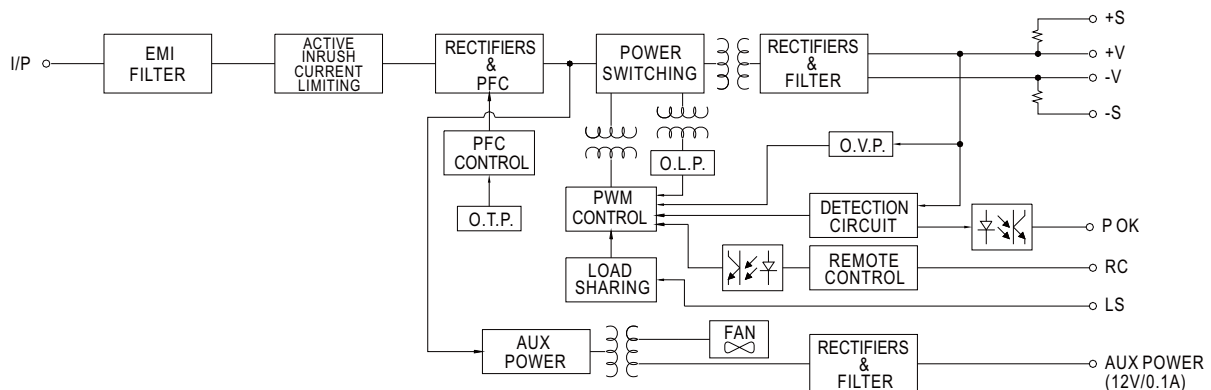
RCG: Remote ON/OFF Ground

AUX: Auxiliary Output

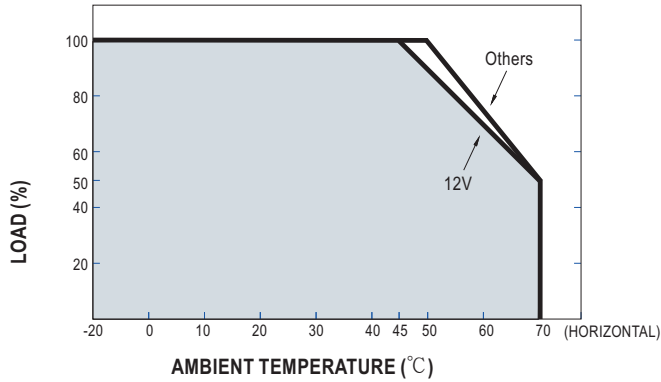
PFC fosc : 70KHz

PWM fosc : 100KHz

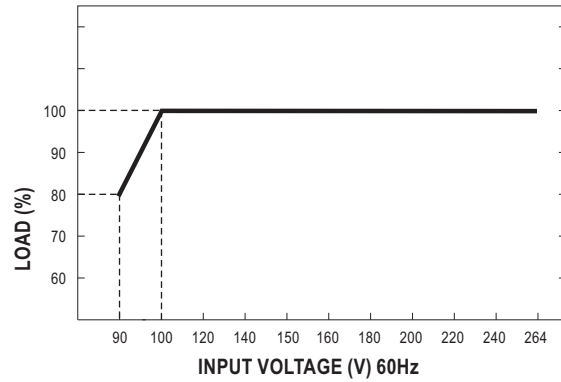
### Block Diagram



## Derating Curve



## Static Characteristics



## Function Manual

### 1.Remote ON/OFF

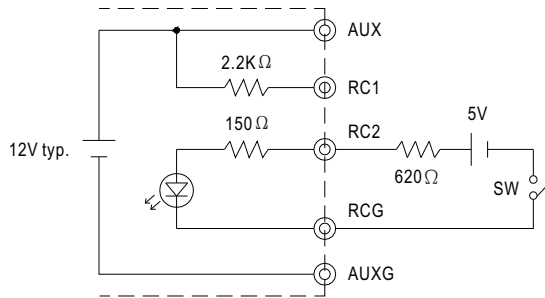
- (1) Remote ON/OFF control becomes available by applying voltage in CN1 & CN2 & CN3
- (2) Table 1.1 shows the specification of Remote ON/OFF function
- (3) Fig. 1.2 shows the example to connect Remote ON/OFF control function

Table 1.1 Specification of Remote ON/OFF

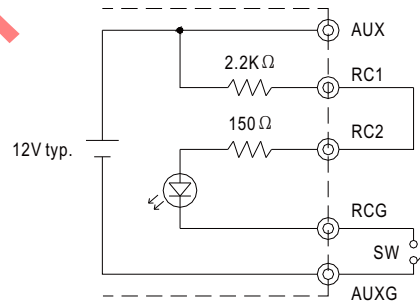
| Connection Method | Fig. 1.2(A) | Fig. 1.2(B) | Fig. 1.2(C) |
|-------------------|-------------|-------------|-------------|
| SW Logic          | Output on   | SW Open     | SW Close    |
|                   | Output off  | SW Close    | SW Open     |

Fig. 1.2 Examples of connecting remote ON/OFF

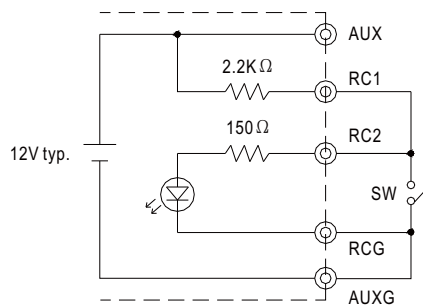
(A) Using external voltage source



(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

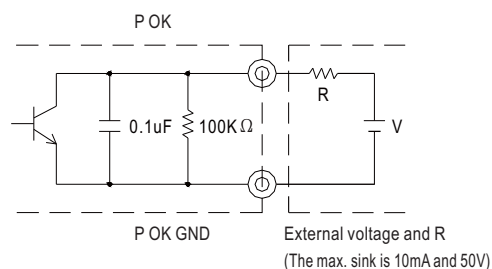
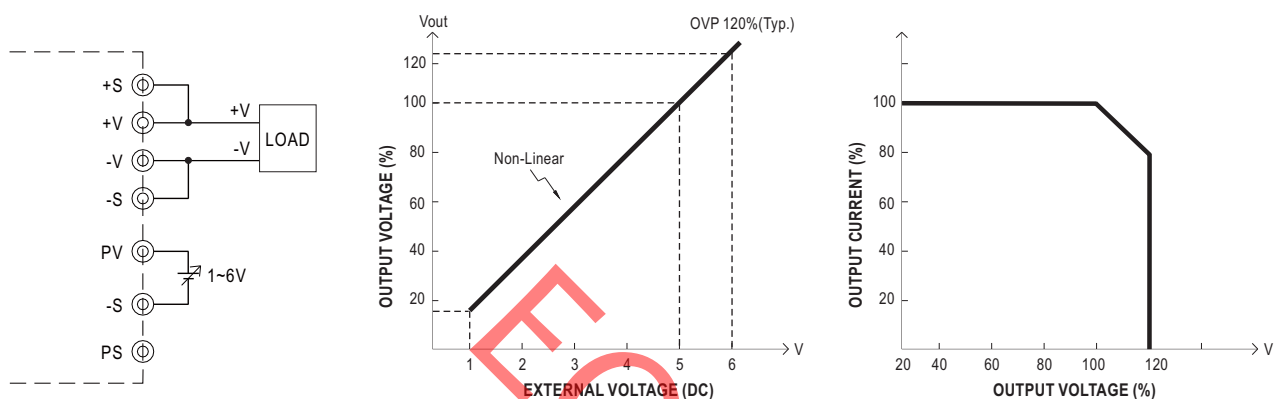


Fig. 2.2 Internal circuit of P OK (Open collector method)

## 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.

