I. Introduction and Installation Dimensions

The SP-AS/AL Series Switch Power Supply has many features, including easy setup, light weight, high efficiency, good reliability, and so on. In particular, it has the remote control and UPS function.

SP-AS Series: SP-05A (5V/6A) SP-12A/12A SP-24A (24V/6A)
7mm x 168mm x 95mm
SP-AL Series: SP-05A (5V/10A) SP-12A/12A SP-24A (24V/3A)
128mm x 105mm x 35mm

(cant be used DIN rail installed)

Standard DIN rail for 35mm

II. Features

1. EMI filter combination
2. Input frequency: 47-63Hz
3. Output voltage stability: 1.5%
4. Can be used for DIN rail mounting (EN50022-35)
5. Wide range voltage input (100-240VAC/140-340VDC)
6. Ripple voltage tolerance range (85-264VAC/120-370VDC)
7. Output voltage fine adjustment range (+5% --10%, adjusting potentiometer V1)
8. Have the function of soft-start (to limit the peak current at start and the pressure of the voltage to the components)
9. The current of the load can be roughly adjusted (Means the maximum protective current of the load, adjusting potentiometer A)
10. Effective: >75%
11. Insulation voltage endurance: >1.5kV
12. Power supply output with the LED indicator
13. Ripple: <150mVp-p
14. Have the short circuit and over-load protection. Short-circuit protection means once the output voltage in short after disconnect the output will be renew, Over-load protection: 105% --125%)
15. With the UPS function (External-connected battery, provide with the UPS by the power supply and the battery)
16. With the remote control function (By the switch control the having and non-having of the output voltage)
17. With the over heat protection function (the main control CMOS chip stops output when the temperature is beyond 125°C and the output will renew automatically when the temperature reduces)

III. Using Methods: (Taking SP-24A as example)

1. General operation:

2. Remote Control:

3. Using UPS function:

4. Adjusting potentiometer (V) to make the voltage of the output terminal be +24VDC (Close the switch K1)
5. Load the working current (CA)
6. Close the switch K1, no voltage output

5. Specification:

<table>
<thead>
<tr>
<th>Type</th>
<th>SP-05A</th>
<th>SP-12A</th>
<th>SP-24A</th>
<th>SP-05A</th>
<th>SP-12A</th>
<th>SP-24A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>5V</td>
<td>12V</td>
<td>24V</td>
<td>5V</td>
<td>12V</td>
<td>24V</td>
</tr>
<tr>
<td>Current</td>
<td>0.6A</td>
<td>3A</td>
<td>6A</td>
<td>0.6A</td>
<td>3A</td>
<td>6A</td>
</tr>
<tr>
<td>Inrush</td>
<td>1.5A</td>
<td>3A</td>
<td>6A</td>
<td>1.5A</td>
<td>3A</td>
<td>6A</td>
</tr>
<tr>
<td>Dimension</td>
<td>Width: 71mm x 165mm x 35mm</td>
<td>Width: 71mm x 165mm x 35mm</td>
<td>Width: 71mm x 165mm x 35mm</td>
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<td></td>
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<tr>
<td>Current input</td>
<td>100-240VAC/140-340VDC</td>
<td>100-240VAC/140-340VDC</td>
<td>100-240VAC/140-340VDC</td>
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<tr>
<td>Voltage input</td>
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<td>90-264VAC/120-370VDC</td>
<td>90-264VAC/120-370VDC</td>
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<td>Heat dissipation</td>
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<td>475KpH</td>
<td>475KpH</td>
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<tr>
<td>Over load stability</td>
<td>&lt;10%</td>
<td>&lt;10%</td>
<td>&lt;10%</td>
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<td>RoHS</td>
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<td>Yes</td>
<td>Yes</td>
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<td>Efficiency</td>
<td>&gt;95%</td>
<td>&gt;95%</td>
<td>&gt;95%</td>
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</tbody>
</table>

6. Using Remote Control and UPS simultaneously:

7. Connect the power (100-240VAC/140-340VDC) if the battery voltage is over +24V, you need to adjust potentiometer (V) to make it over battery voltage.

8. At this time the main output voltage is provided by load Batt. and charges the accumulator battery by the switch K2 and K3 wire F1; if there is no AC/DC voltage input, battery power supply the load by the internal circuit, the Maximum working current is 3A.

9. Using remote control and UPS simultaneously, the using method is combined by the method 2 and method 3 as below:

10. Disconnect A0DC power wire.
11. Connect the switch and fuse wire and the battery according to the positive pole and negative pole marked on the crust.