



Наличие и актуальные цены на

**SP-100-12**

<https://www.mean-well.ru/store/SP-100-12/>



## ■ Features :

- Universal AC input / full range
- Built-in active PFC function, PF>0.93
- Protections: Short circuit / Overload / Over voltage
- Built-in constant current limiting circuit
- Remote ON-OFF control(Optional)
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty

User's Manual

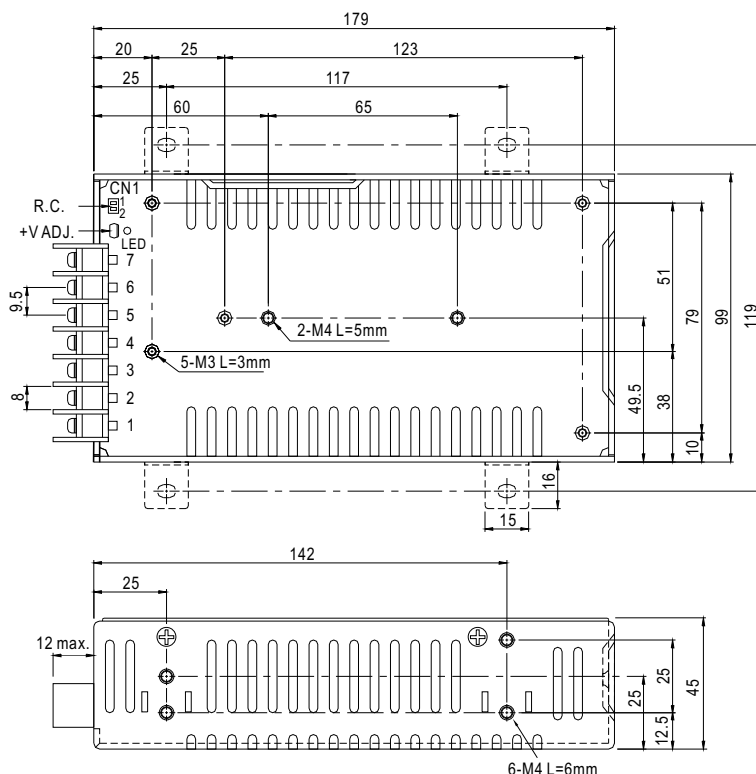


## SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP-100-3.3                                                                                                                            | SP-100-5    | SP-100-7.5                  | SP-100-12     | SP-100-13.5  | SP-100-15      | SP-100-24     | SP-100-27    | SP-100-48     |              |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------|---------------|--------------|----------------|---------------|--------------|---------------|--------------|
| OUTPUT                   | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3.3V                                                                                                                                  | 5V          | 7.5V                        | 12V           | 13.5V        | 15V            | 24V           | 27V          | 48V           |              |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20A                                                                                                                                   | 20A         | 13.5A                       | 8.5A          | 7.5A         | 6.7A           | 4.2A          | 3.8A         | 2.1A          |              |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0 ~ 20A                                                                                                                               | 0 ~ 20A     | 0 ~ 13.5A                   | 0 ~ 8.5A      | 0 ~ 7.5A     | 0 ~ 6.7A       | 0 ~ 4.2A      | 0 ~ 3.8A     | 0 ~ 2.1A      |              |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 66W                                                                                                                                   | 100W        | 101.25W                     | 102W          | 101.25W      | 100.5W         | 100.8W        | 102.6W       | 100.8W        |              |
|                          | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100mVp-p                                                                                                                              | 100mVp-p    | 100mVp-p                    | 100mVp-p      | 100mVp-p     | 100mVp-p       | 150mVp-p      | 150mVp-p     | 250mVp-p      |              |
|                          | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.14 ~ 3.63V                                                                                                                          | 4.75 ~ 5.5V | 7.13 ~ 8.25V                | 11.4 ~ 13.2V  | 12.8 ~ 14.9V | 14.3 ~ 16.5V   | 22.8 ~ 26.4V  | 25.7 ~ 29.7V | 45.6 ~ 52.8V  |              |
|                          | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ±2.0%                                                                                                                                 | ±2.0%       | ±2.0%                       | ±2.0%         | ±2.0%        | ±2.0%          | ±1.0%         | ±1.0%        | ±1.0%         |              |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ±0.5%                                                                                                                                 | ±0.5%       | ±0.5%                       | ±0.5%         | ±0.5%        | ±0.5%          | ±0.5%         | ±0.5%        | ±0.5%         |              |
|                          | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ±1.0%                                                                                                                                 | ±1.0%       | ±1.0%                       | ±0.5%         | ±0.5%        | ±0.5%          | ±0.5%         | ±0.5%        | ±0.5%         |              |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 600ms, 30ms at full load                                                                                                              |             |                             |               |              |                |               |              |               |              |
| HOLD UP TIME (Typ.)      | 20ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                       |             |                             |               |              |                |               |              |               |              |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 85 ~ 264VAC                                                                                                                           |             | 120 ~ 370VDC                |               |              |                |               |              |               |              |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 47 ~ 63Hz                                                                                                                             |             |                             |               |              |                |               |              |               |              |
|                          | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PF>0.93/230VAC                                                                                                                        |             | PF>0.97/115VAC at full load |               |              |                |               |              |               |              |
|                          | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 75%                                                                                                                                   | 79%         | 82%                         | 82.5%         | 83%          | 84%            | 87%           | 86%          | 84%           |              |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1.7A/115VAC                                                                                                                           |             | 0.8A/230VAC                 |               |              |                |               |              |               |              |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COLD START 35A/230VAC                                                                                                                 |             |                             |               |              |                |               |              |               |              |
|                          | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <2mA / 240VAC                                                                                                                         |             |                             |               |              |                |               |              |               |              |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 105 ~ 150% rated output power<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed |             |                             |               |              |                |               |              |               |              |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.63 ~ 4.46V                                                                                                                          |             | 5.5 ~ 6.75V                 | 8.25 ~ 10.13V | 13.2 ~ 16.2V | 14.85 ~ 18.23V | 16.5 ~ 20.25V | 26.4 ~ 32.4V | 29.7 ~ 36.45V | 52.8 ~ 64.8V |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Protection type : Shut down o/p voltage, re-power on to recover                                                                       |             |                             |               |              |                |               |              |               |              |
| FUNCTION                 | REMOTE CONTROL(OPTION)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CN1:4 ~ 10VDC POWER ON, <0 ~ 0.8VDC POWER OFF                                                                                         |             |                             |               |              |                |               |              |               |              |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -10 ~ +60℃ (Refer to output load derating curve)                                                                                      |             |                             |               |              |                |               |              |               |              |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 20 ~ 90% RH non-condensing                                                                                                            |             |                             |               |              |                |               |              |               |              |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | -20 ~ +85℃, 10 ~ 95% RH                                                                                                               |             |                             |               |              |                |               |              |               |              |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±0.05%/℃ (0 ~ 50℃)                                                                                                                    |             |                             |               |              |                |               |              |               |              |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                          |             |                             |               |              |                |               |              |               |              |
| SAFETY & EMC<br>(Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UL60950-1 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 / 25ll/ 70% RH                                                                             |             |                             |               |              |                |               |              |               |              |
|                          | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Compliance to EN55032 (CISPR32) Class B,EN61000-3-2,-3                                                                                |             |                             |               |              |                |               |              |               |              |
|                          | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A                                           |             |                             |               |              |                |               |              |               |              |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 211.3K hrs min. MIL-HDBK-217F (25℃)                                                                                                   |             |                             |               |              |                |               |              |               |              |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 179*99*45mm (L*W*H)                                                                                                                   |             |                             |               |              |                |               |              |               |              |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.66Kg; 20pcs/14.3Kg/1.17CUFT                                                                                                         |             |                             |               |              |                |               |              |               |              |
| NOTE                     | <div>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.</div> <div>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</div> <div>3. Tolerance : includes set up tolerance, line regulation and load regulation.</div> <div>4. 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 360mm*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>)</div> <div>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></div> |                                                                                                                                       |             |                             |               |              |                |               |              |               |              |

## Mechanical Specification

Case No. 915A Unit:mm



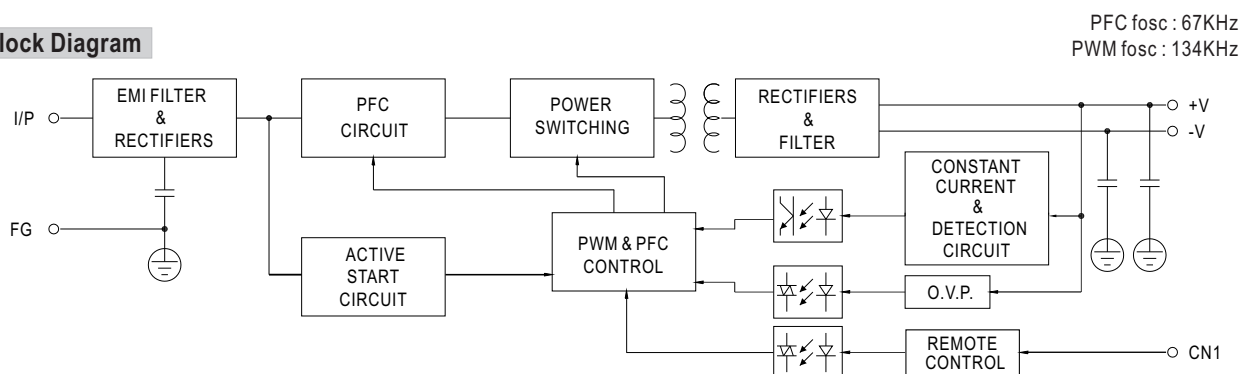
### Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment   |
|---------|------------|---------|--------------|
| 1       | AC/L       | 4,5     | DC OUTPUT -V |
| 2       | AC/N       | 6,7     | DC OUTPUT +V |
| 3       | FG $\perp$ |         |              |

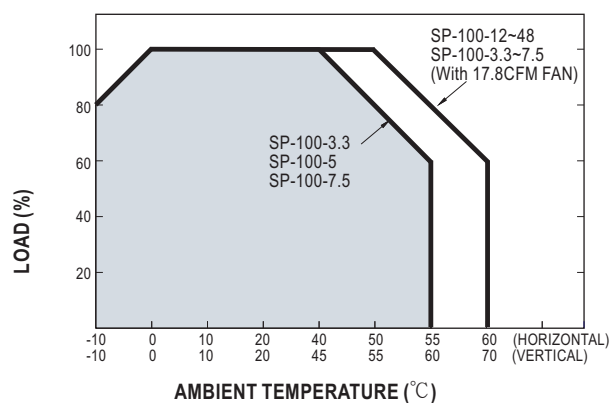
Remote ON/OFF(CN1): JST S2B-XH or equivalent(optional)

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

## Block Diagram



## Derating Curve



## Output Derating VS Input Voltage

