



SUNPOWER TECHNOLOGY CORP.  
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# SRU-150-Qx Series

Quad Output  
 U Bracket Power Supply



133.4 x 82 x 38 mm  
 5.25 x 3.23 x 1.50 inch



## Features:

- \* Built-in EMI filter, low ripple noise
- \* Built-in fan base for additional 12V/0.3A DC FAN
- \* Over voltage protection
- \* Over load & short circuit protection
- \* <70% load free air convection
- \* 100% full load burn-in test
- \* UL, cUL, CB, CE approved
- \* 3 years warranty

## Specification:

|                    |                                     |   |      |       |       |              |      |       |       |
|--------------------|-------------------------------------|---|------|-------|-------|--------------|------|-------|-------|
| INPUT              | <b>Voltage</b>                      | 85V ~ 264VAC universal full range or 120V ~ 375VDC.   |      |       |       |              |      |       |       |
|                    | <b>Frequency</b>                    | 47 ---- 63 Hz   |      |       |       |              |      |       |       |
|                    | <b>Current</b>                      | <4.0A @ 100V AC input, full load condition  |      |       |       |              |      |       |       |
|                    | <b>Inrush Current (TYP)</b>         | 35A@115V , 70A@230V AC input. Cold start at 25°C ambient  |      |       |       |              |      |       |       |
|                    | <b>Leakage Current</b>              | <1.5mA@264V AC input  |      |       |       |              |      |       |       |
| OUTPUT             | <b>MODEL No.</b>                    | SRU-150-Q1  |      |       |       | SRU-150-Q3   |      |       |       |
|                    | <b>Voltage</b>                      | V1  | V2   | V3    | V4    | V1           | V2   | V3    | V4    |
|                    |                                     | 12V   | 5V   | -12V  | -5V   | 12V          | 5V   | 24V   | -12V  |
|                    | <b>Min Load</b>                     | >0.5A OR >1A  |      | 0A    | 0A    | >0.5A OR >1A |      | 0A    | 0A    |
|                    | <b>TYP Load</b>                     | 8.5A  | 4A   | 0.5A  | 0.5A  | 5A           | 4A   | 2A    | 0.5A  |
|                    | <b>Max Load</b>                     | 10A   | 4A   | 1A    | 1A    | 8A           | 4A   | 3A    | 1A    |
|                    | <b>Output Tolerance</b> ②           | ±3%   | ±3%  | ±5%   | ±5%   | ±3%          | ±3%  | ±5%   | ±5%   |
|                    | <b>Ripple Noise MAX.</b> ③          | 120mV   | 70mV | 150mV | 100mV | 120mV        | 70mV | 240mV | 150mV |
|                    | <b>Efficiency (TYP.)</b>            | 82%   |      |       |       | 84%          |      |       |       |
| <b>Output MAX.</b> | 130W                                |   |      |       | 134W  |              |      |       |       |
| PROTECTION         | <b>Over Voltage</b>                 | V1 : 13.8 ~16.8V ; Shutdown and latch off, recover after re-start up.   |      |       |       |              |      |       |       |
|                    | <b>OverLoad &amp; Short Circuit</b> | When power supply over 105%~ 150% max load or short circuit acted, power supply will go into hiccup mode and recover automatically after the fault is removed.  |      |       |       |              |      |       |       |
| ELEC. CHAR.        | <b>Rise time</b>                    | <30mS   |      |       |       |              |      |       |       |
|                    | <b>Hold up time</b>                 | >30mS@230V, full load condition   |      |       |       |              |      |       |       |
|                    | <b>Setup time</b>                   | <0.5S@100 ~ 240V AC   |      |       |       |              |      |       |       |
| ENVIRONMENT        | <b>Temperature</b> ④                | Operating: -20 ~ +70°C ; De-rating: 45 ~ 70°C: 2.5%/°C ; Storage: -40 ~ +85°C   |      |       |       |              |      |       |       |
|                    | <b>Humidity</b>                     | Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)   |      |       |       |              |      |       |       |
| SAFETY             | <b>Withstand voltage</b>            | I/P-O/P:3KVAC, I/P-FG:1.8KVAC, O/P-FG:0.5KVAC, 1minute  |      |       |       |              |      |       |       |
|                    | <b>Isolation resistance</b>         | I/P-O/P, I/P-FG, O/P-FG > 100MΩ/500VDC at 25°C / 70% RH   |      |       |       |              |      |       |       |
|                    | <b>Safety standard</b>              | UL 62368-1 2 <sup>nd</sup> , CSA C22.2 No. 62368-1-14 2 <sup>nd</sup> , IEC 60950-1:2005(Second .Edition)+Am 1:2009+Am 2:2013, IEC 62368-1:2014(Second Edition) |      |       |       |              |      |       |       |
| EMC                | <b>EMI</b>                          | EN 55032 CLASS B · FCC CFR 47 PART 15 CLASS B<br>Compliance to EN61000-3-2 CLASS A (TYP 80% Load) , EN61000-3-3   |      |       |       |              |      |       |       |
|                    | <b>EMS</b>                          | EN 55024 : EN 61000-4-2,3,4,5,6,8,11  |      |       |       |              |      |       |       |
| OTHERS             | <b>Cooling</b>                      | <70% load free air convection, a 10CFM (min.) DC FAN is required when output exceed 70% load  |      |       |       |              |      |       |       |
|                    | <b>M.T.B.F.</b>                     | 276 k hours   |      |       |       |              |      |       |       |
|                    | <b>Dimension</b>                    | 133.4 x 82 x 38 mm (L*W*H)  |      |       |       |              |      |       |       |
|                    | <b>Packing</b>                      | N.W.: 0.370Kg / 1pc; 30 pcs / 1.20 CUFT / 1 CTN   |      |       |       |              |      |       |       |

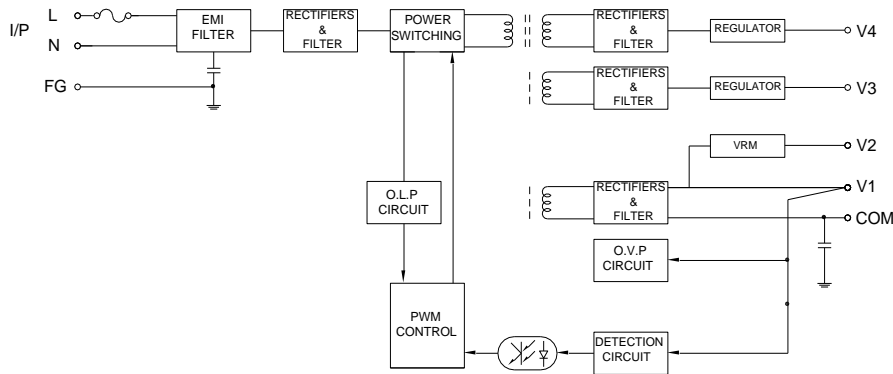
|      |  |
|------|--|
| NOTE | ① All measurements which not mentioned are based on 230VAC input, <b>output Max</b> at ambient 25°C / 70%RH  |
|      | ② Output tolerance included set up voltage, line regulation and load regulation.<br>The regulation is measured at the condition : when any of output is with 20% ~ 100% max load and the rest of each outputs are with 60% max load, Each output could work within max load but must under total output max. |
|      | ③ Ripple & noise are measured at 100~254VAC input with 10~50°C condition and 20MHz of bandwidth by using a 10" ~ 15" twisted pair-wire terminated with a 0.1uF & a 47uF parallel capacitor.  |
|      | ④ The operating temperature shall follow the de-rating curve in spec<br>The output load may be requested for decreasing as de-rating curve in spec when low input voltage is under 100VAC.   |
|      | ⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.  |



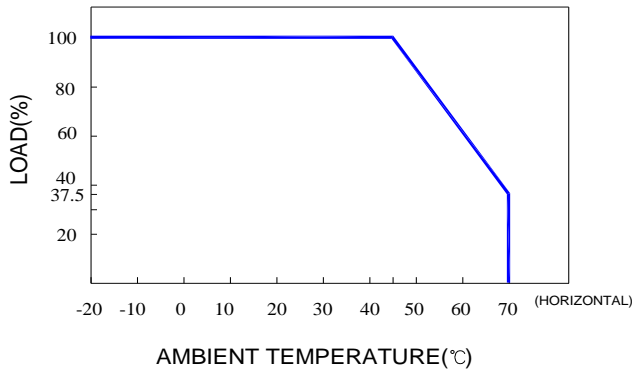
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# SRU-150-Qx Series

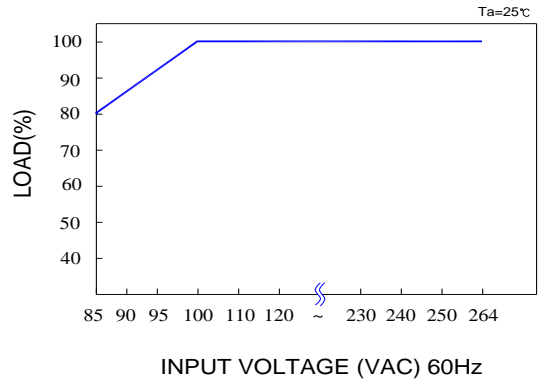
## Block Diagram : UQ8-1



## De-rating Curve :

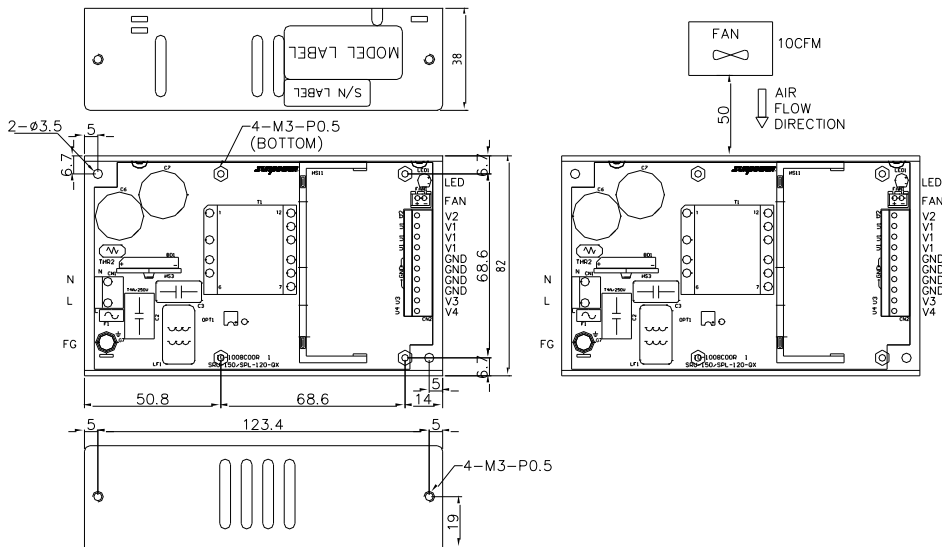


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



### NOTES:

TERMINAL BLOCK : I/P : CN1,3P P=3.96mm( Pin 2 CUT), JST B3P-VH or COMPATIBLE

| MODEL No.  | 1 | 2   | 3 |
|------------|---|-----|---|
| SRU-150-Qx | N | N/C | L |

TERMINAL BLOCK : O/P : CN2, 10P, P=3.96mm, JST B10P-VH or COMPATIBLE

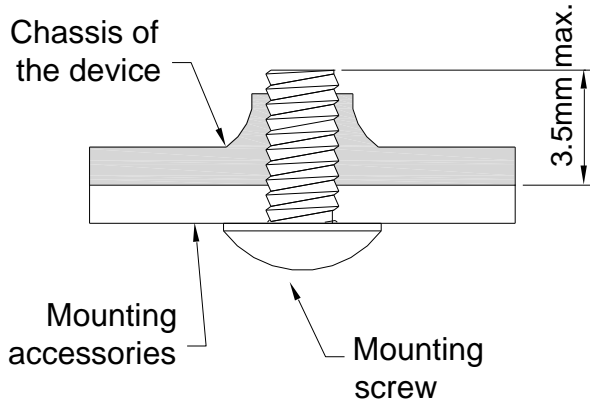
| MODEL No.  | 1  | 2  | 3  | 4  | 5   | 6   | 7   | 8   | 9  | 10 |
|------------|----|----|----|----|-----|-----|-----|-----|----|----|
| SRU-150-Qx | V2 | V1 | V1 | V1 | GND | GND | GND | GND | V3 | V4 |



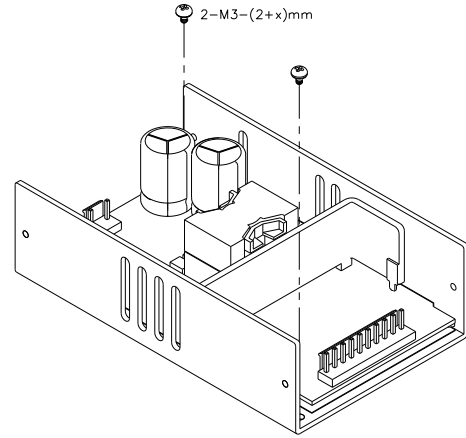
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# SRU-150-Qx Series

## Installation of Mounting Accessories



This is to keep a safe distance between the screw and internal components



Quick installation diagram