

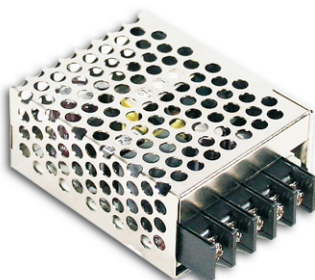
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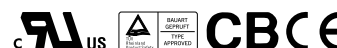
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Jameco Part Number 1919051



## Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

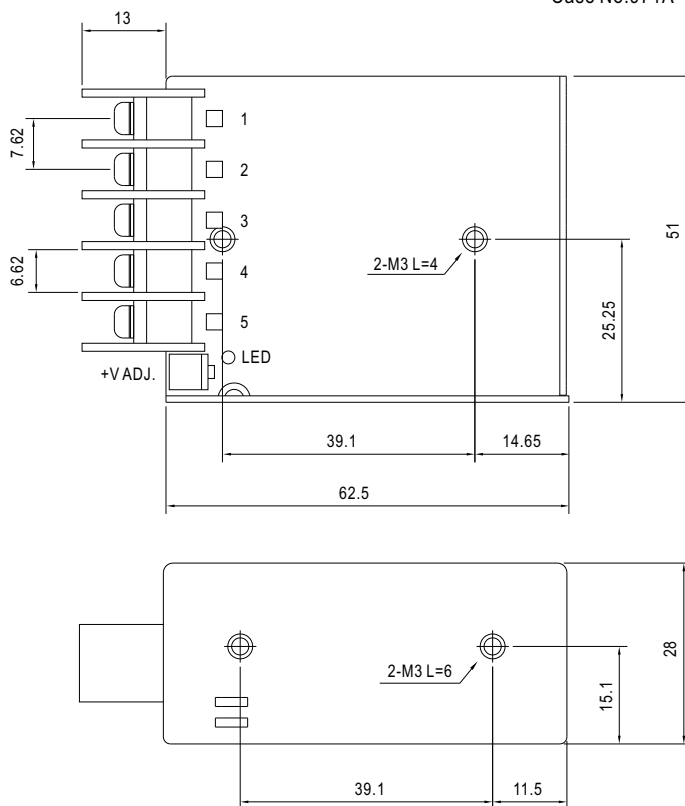


## SPECIFICATION

| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RS-15-3.3                                                                                                                                          | RS-15-5      | RS-15-12     | RS-15-15       | RS-15-24     | RS-15-48     |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------|--------------|--------------|
| OUTPUT                                  | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3.3V                                                                                                                                               | 5V           | 12V          | 15V            | 24V          | 48V          |
|                                         | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3A                                                                                                                                                 | 3A           | 1.3A         | 1A             | 0.625A       | 0.313A       |
|                                         | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0 ~ 3A                                                                                                                                             | 0 ~ 3A       | 0 ~ 1.3A     | 0 ~ 1A         | 0 ~ 0.625A   | 0 ~ 0.313A   |
|                                         | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 9.9W                                                                                                                                               | 15W          | 15.6W        | 15W            | 15W          | 15W          |
|                                         | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 80mVp-p                                                                                                                                            | 80mVp-p      | 120mVp-p     | 120mVp-p       | 200mVp-p     | 200mVp-p     |
|                                         | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2.9 ~ 3.6V                                                                                                                                         | 4.75 ~ 5.5V  | 10.8 ~ 13.2V | 13.5 ~ 16.5V   | 22 ~ 27.6V   | 43.2 ~ 52.8V |
|                                         | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±3.0%                                                                                                                                              | ±2.0%        | ±1.0%        | ±1.0%          | ±1.0%        | ±1.0%        |
|                                         | LINE REGULATION <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±0.5%                                                                                                                                              | ±0.5%        | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%        |
|                                         | LOAD REGULATION <small>Note.5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±2.0%                                                                                                                                              | ±1.5%        | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%        |
|                                         | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1000ms, 30ms/230VAC      1000ms, 30ms/115VAC at full load                                                                                          |              |              |                |              |              |
| HOLD UP TIME (Typ.)                     | 70ms/230VAC      15ms/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                    |              |              |                |              |              |
| INPUT                                   | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 85 ~ 264VAC      120 ~ 370VDC                                                                                                                      |              |              |                |              |              |
|                                         | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 47 ~ 63Hz                                                                                                                                          |              |              |                |              |              |
|                                         | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 72%                                                                                                                                                | 77%          | 81%          | 81%            | 82%          | 82%          |
|                                         | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.35A/115VAC      0.25A/230VAC                                                                                                                     |              |              |                |              |              |
|                                         | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | COLD START 50A / 230VAC                                                                                                                            |              |              |                |              |              |
|                                         | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <2mA / 240VAC                                                                                                                                      |              |              |                |              |              |
| PROTECTION                              | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Above 105% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                            |              |              |                |              |              |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3.8 ~ 4.45V                                                                                                                                        | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 28.4 ~ 32.4V | 55.2 ~ 64.8V |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Protection type : Shut off o/p voltage, clamping by zener diode                                                                                    |              |              |                |              |              |
|                                         | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | U1 Tj 140℃ typically (U1) detect on main control IC<br>Protection type : Shut down o/p voltage, recovers automatically after temperature goes down |              |              |                |              |              |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -20 ~ +70℃ (Refer to output load derating curve)                                                                                                   |              |              |                |              |              |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20 ~ 90% RH non-condensing                                                                                                                         |              |              |                |              |              |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -40 ~ +85℃, 10 ~ 95% RH                                                                                                                            |              |              |                |              |              |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ±0.03%/℃ (0 ~ 50℃)                                                                                                                                 |              |              |                |              |              |
|                                         | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                            |              |              |                |              |              |
| SAFETY & EMC<br><small>(Note 6)</small> | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UL60950-1, TUV EN60950-1 approved                                                                                                                  |              |              |                |              |              |
|                                         | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC                                                                                                  |              |              |                |              |              |
|                                         | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC                                                                                                           |              |              |                |              |              |
|                                         | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Compliance to EN55022 (CISPR22) Class B                                                                                                            |              |              |                |              |              |
|                                         | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance to EN61000-3-2,-3                                                                                                                       |              |              |                |              |              |
|                                         | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Compliance to EN61000-4-2, 3, 4, 5, 6, 8,11, ENV50204, EN55024, EN61000-6-1, light industry level, criteria A                                      |              |              |                |              |              |
| OTHERS                                  | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1608.8Khrs min.      MIL-HDBK-217F (25℃)                                                                                                           |              |              |                |              |              |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 62.5*51*28mm (L*W*H)                                                                                                                               |              |              |                |              |              |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.13Kg; 108pcs/15Kg/0.71CUFT                                                                                                                       |              |              |                |              |              |
| 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. Line regulation is measured from low line to high line at rated load.<br>5. Load regulation is measured from 0% to 100% rated load.<br>6. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. |                                                                                                                                                    |              |              |                |              |              |

## Mechanical Specification

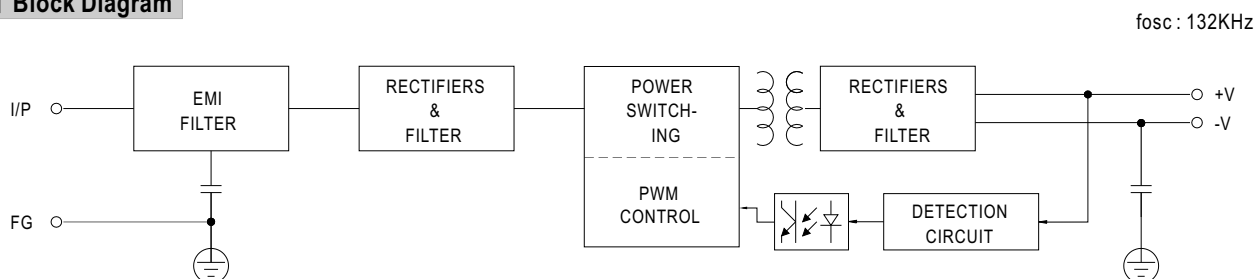
Case No.971A Unit:mm



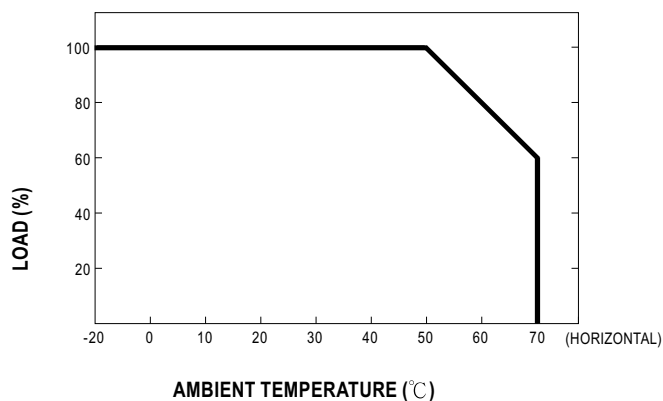
Terminal Pin. No Assignment

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

## Block Diagram



## Derating Curve



## Output Derating VS Input Voltage

