

## YEC155 SERIES 155W



UL US CE UK RoHS

YEC series is designed for uninterruptible DC power supply (UPS), in addition to the main power supply circuit also provides one floating charge output, connected to the battery when there is mains power supply, the load uses AC power supply, while the charging circuit charges the battery float, and automatically switches to the battery power supply after power failure. The YEC series is a classic metal mesh shell model, which provides one battery voltage supply output, but also provides one charging output. This series of power supply is widely used in emergency lighting, security monitoring and alarm system.

### Features



Universal AC input / Full range



Cooling by free air convection



Battery low protections



100% full load burn-in test



Protection: Short circuit/Overload/Over voltage



Two Years Warranty

## Model Information

| Yingjiao<br>Part Number | DC<br>Voltage<br>CH1/CH2 | Rated<br>Current<br>CH1/CH2 | Rated<br>Power | CURRENT<br>RANGE<br>CH1/CH2 | VOLTAGE<br>ADJ.RANGE |
|-------------------------|--------------------------|-----------------------------|----------------|-----------------------------|----------------------|
| YEC155-13.8             | 13.8V/13.4V              | 10.5A/0.5A                  | 151.55W        | 0~11.5/0~0.5A               | CH1:12~14.5V         |
| YEC155-27.6             | 27.6V/26.5V              | 5A/0.5A                     | 151.55W        | 0~5.5A/0~0.5A               | CH1:24~29V           |

## Input

|                      |                                  |             |
|----------------------|----------------------------------|-------------|
| VOLTAGE RANGE        | 90-264VAC/127-370VDC             |             |
| FREQUENCY RANGE      | 47-63Hz                          |             |
| POWER FACTOR (Typ.)  | PF>0.92 at full load             |             |
| EFFICIENCY(Typ.)     | 80%                              | YEC155-13.8 |
|                      | 84%                              | YEC155-27.6 |
| AC CURRENT(Typ.)     | 2.5A/115VAC                      |             |
|                      | 1.5A/230VAC                      |             |
| INRUSH CURRENT(Typ.) | COLD START 23A/115VAC 45A/230VAC |             |
| LEAKAGE CURRENT      | <1mA/240VAC                      |             |

## Output

|                      |                                  |             |
|----------------------|----------------------------------|-------------|
| RIPPLE & NOISE(max.) | 150mVp-p                         | YEC155-13.8 |
|                      | 150mVp-p                         | YEC155-27.6 |
| VOLTAGE TOLERANCE    | ±2.0%                            | YEC155-13.8 |
|                      | ±1.0%                            | YEC155-27.6 |
| LINE REGULATION      | ±0.5%                            |             |
| LOAD REGULATION      | ±0.5%                            |             |
| SETUP,RISE TIME      | 1000ms, 90ms/230VAC at full load |             |
|                      | 2000ms, 90ms/115VAC at full load |             |
| HOLD UP TIME (Typ.)  | 24ms/230VAC at full load         |             |
|                      | 20ms/115VAC at full load         |             |

## Protection

|              |                                                                                                                             |             |
|--------------|-----------------------------------------------------------------------------------------------------------------------------|-------------|
| OVER LOAD    | CH1:105~135%,CH2:0.51~0.9A rated output power                                                                               |             |
|              | AC Charging Mode: Hiccup mode, recovers automatically after fault condition is removed,UPS Mode: Protected by internal fuse |             |
| OVER VOLTAGE | CH1:15.87~18.63V                                                                                                            | YEC155-13.8 |
|              | CH1:31.74~37.26V                                                                                                            | YEC155-27.6 |
|              | Protection type: Hiccup mode, recovers automatically after fault condition is removed                                       |             |
| BATTERY LOW  | 10V±0.8V                                                                                                                    | YEC55-13.8  |
|              | 19.5V(+1.5V,-1V)                                                                                                            | YEC55-27.6  |

## Environment

|                        |                                                            |  |
|------------------------|------------------------------------------------------------|--|
| WORKING TEMP.          | -10 °C to +60 °C (Refer to "Derating Curve")               |  |
| Working Humidity       | 20 ~ 90% RH Non-Condensing                                 |  |
| STORAGE TEMP, HUMIDITY | -20°C ~ +85°C, 10 ~ 95% RH                                 |  |
| TEMP. COEFFICIENT      | ± 0.03%/°C(0~50°C) on CH1 output                           |  |
| VIBRATION              | 10~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y,Z axes |  |
| MTBF                   | 1818.3K hrs min. Telcordia SR-332 (Bellcore)               |  |

## SAFETY & EMC

|                      |                                                                           |
|----------------------|---------------------------------------------------------------------------|
| SAFETY STANDARDS     | UL62368-1, TUV BS EN/EN62368-1,<br>EAC TP TC 004, AS/NZS 60950.1 approved |
| WITHSTAND VOLTAGE    | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC                                 |
| ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/ 500VDC/25 °C/70% RH                    |
| EMC EMISSION         | Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2          |
| EMC IMMUNITY         | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11,BS EN/EN55035                |

## Note

- 1.All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3.Tolerance : includes set up tolerance, line regulation and load regulation.
- 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."
- 5.The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).

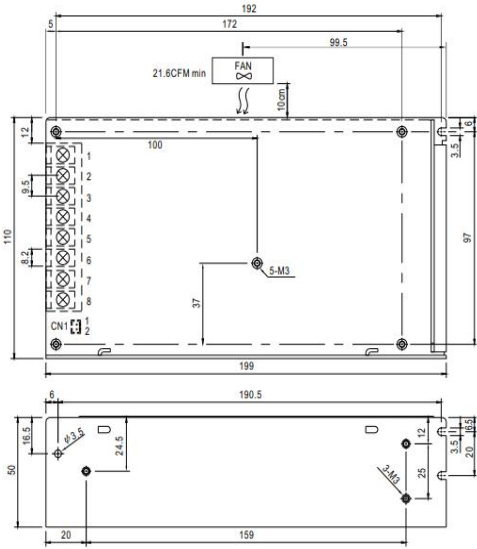
## Dimensions & Weight

|         |              |
|---------|--------------|
| Length: | 199mm/7.83in |
| Width:  | 110mm/4.33in |
| Height: | 50mm/1.97in  |
| Weight: | 880g         |

## Packing

|                           |                                              |
|---------------------------|----------------------------------------------|
| Carton Size:              | 38 × 19.5 × 26 CM<br>14.96 × 7.68 × 10.24 in |
| Master Carton Quantities: | 15pcs/Carton                                 |

Dimensions and Installation



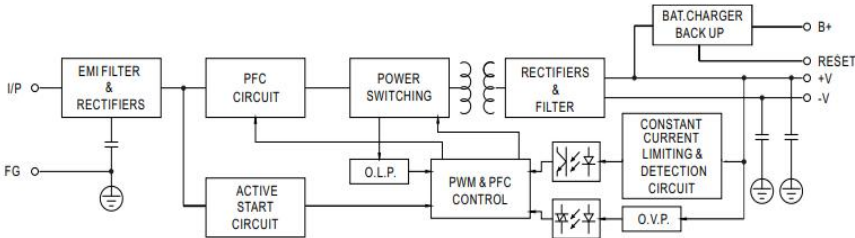
Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment    |
|---------|------------|---------|---------------|
| 1       | AC/L       | 5       | BAT. +        |
| 2       | AC/N       | 6       | BAT. -/COM    |
| 3       | FG         | 7       | DC OUTPUT COM |
| 4       | NC         | 8       | DC OUTPUT +V  |

CN1 Pin No. Assignment : JST B2B-XH or equivalent

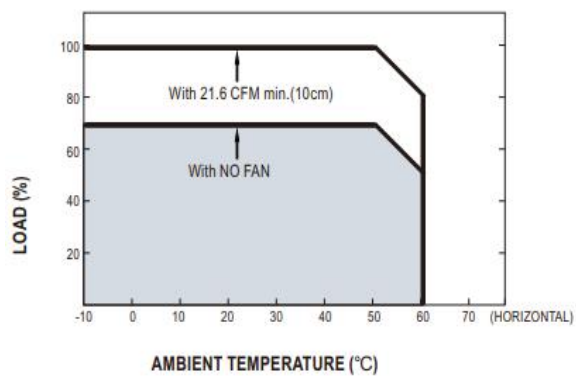
| Pin No. | Assignment | Mating Housing        | Terminal                        |
|---------|------------|-----------------------|---------------------------------|
| 1       | RESET SW   | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2       |            |                       |   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

Block Diagram



**Deduction curve and temperature**

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**Minus output and input voltage curves**

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