



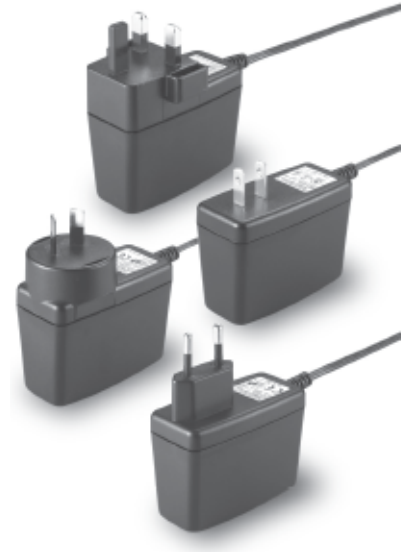
# TRH25 SERIES

## 25W SWITCHING ADAPTER



### Features

- \* Miniature Size
  - \* Universal Input: 90~264Vac
  - \* EMI Meets EN55032 Class B and CISPR/FCC Class B
  - \* Continuous Short Circuit Protection
  - \* Over Voltage Protection
  - \* No Load Power Consumption < 75mW
  - \* Meet CoC V5 Tier 2 & DoE Level VI
  - \* Class II
- (Output Cable Length  $\leq$  1800mm)  
 (TRH25033: Output Cable Length  $\leq$  720mm)  
 (TRH25050: Output Cable Length  $\leq$  1220mm)



### Ordering information

| TRH25     | XXX                | X            | XX          | X                                 | XX                       |
|-----------|--------------------|--------------|-------------|-----------------------------------|--------------------------|
| Model No. | AC Plug Type       | DC Plug Type | OVP         | DC Cable Length and Type          |                          |
|           | A: USA 2 Pin       |              | E: With OVP | 01:                               | 720mm                    |
|           | E: Europe 2 Pin    |              |             | 02:                               | 1220mm                   |
|           | U: British 3 Pin   |              |             | 03:                               | 1800mm                   |
|           | S: Australia 2 Pin |              |             | 11:                               | 720mm with Ferrite Core  |
|           |                    |              |             | 12:                               | 1220mm with Ferrite Core |
|           |                    |              |             | 13:                               | 1800mm with Ferrite Core |
|           |                    |              |             | * 16AWG / UL1185 for Vo: 5V, 3.3V |                          |
|           |                    |              |             | * 18AWG / UL1185 for Vo: 12V      |                          |
|           |                    |              |             | * 20AWG / UL1185 for Vo: 15V      |                          |
|           |                    |              |             | * 22AWG / UL1185 for Vo: 18V      |                          |
|           |                    |              |             | * 24AWG / UL1185 for 24V          |                          |

| MODEL    | OUTPUT VOLTAGE | OUTPUT CURRENT | RIPPLE & NOISE<br>NOTE 1 | VOLTAGE ACCURACY<br>NOTE 2 | LINE REGULATION<br>NOTE 3 | LOAD REGULATION<br>NOTE 4 | AVG. EFF. |
|----------|----------------|----------------|--------------------------|----------------------------|---------------------------|---------------------------|-----------|
| TRH25033 | 3.3V           | 4.0A           | 50mVp-p                  | $\pm 2\%$                  | $\pm 1\%$                 | $\pm 6\%$                 | 80.97%    |
| TRH25050 | 5V             | 4.0A           | 1%                       | $\pm 2\%$                  | $\pm 1\%$                 | $\pm 6\%$                 | 83.69%    |
| TRH25120 | 12V            | 2.1A           | 1%                       | $\pm 2\%$                  | $\pm 1\%$                 | $\pm 5\%$                 | 87.02%    |
| TRH25150 | 15V            | 1.67A          | 1%                       | $\pm 2\%$                  | $\pm 1\%$                 | $\pm 3\%$                 | 86.99%    |
| TRH25180 | 18V            | 1.4A           | 1%                       | $\pm 2\%$                  | $\pm 1\%$                 | $\pm 2\%$                 | 87.02%    |
| TRH25240 | 24V            | 1.05A          | 1%                       | $\pm 2\%$                  | $\pm 1\%$                 | $\pm 2\%$                 | 87.02%    |

## Specifications

### INPUT SPECIFICATIONS:

|                       |                         |
|-----------------------|-------------------------|
| Voltage .....         | 90~264Vac<br>120~370Vdc |
| Frequency .....       | 47 to 63Hz              |
| Input Current .....   | 0.7A max.               |
| Inrush Current .....  | 60A max. @240Vac        |
| Conducted EMI .....   | CISPR/FCC Class B       |
| Leakage Current ..... | 0.25mA max.             |

### OUTPUT SPECIFICATIONS:

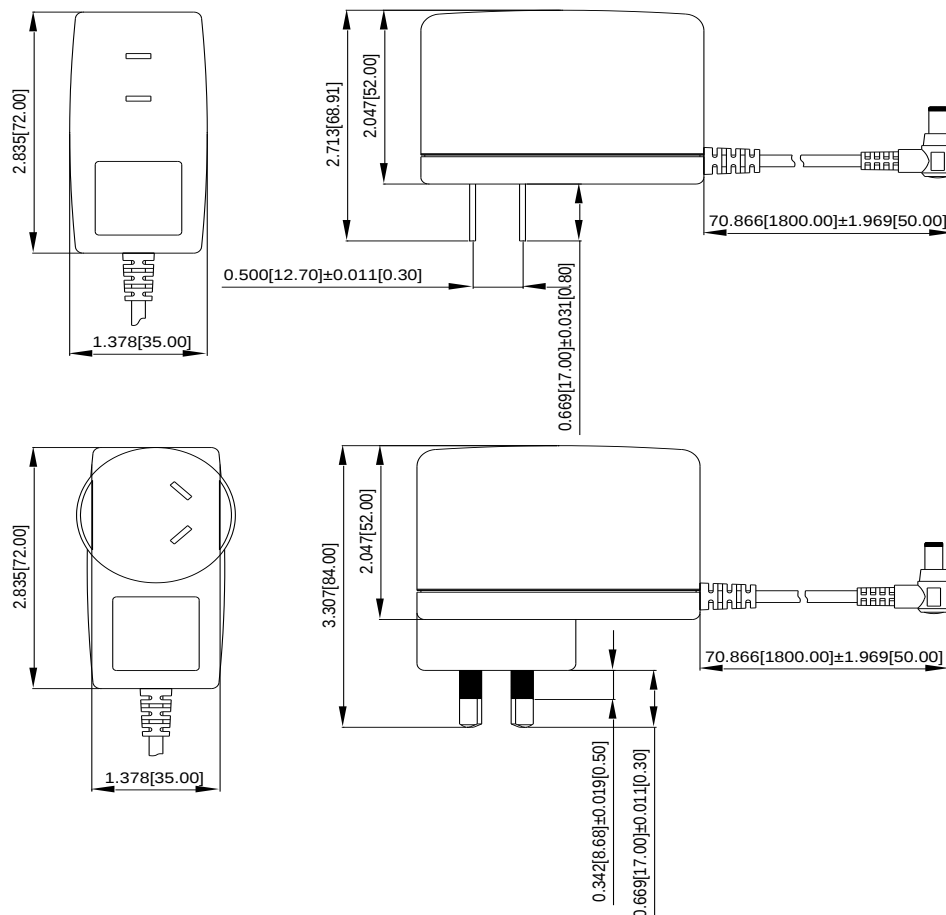
|                                |                            |
|--------------------------------|----------------------------|
| Holdup Time .....              | 10ms typ. @115Vac          |
| Short Circuit Protection ..... | Continuous (Auto Recovery) |
| Over Voltage Protection .....  | TVS Component to Clamp     |

|                               |                |
|-------------------------------|----------------|
| Temperature Coefficient ..... | ±0.05%/°C max. |
|-------------------------------|----------------|

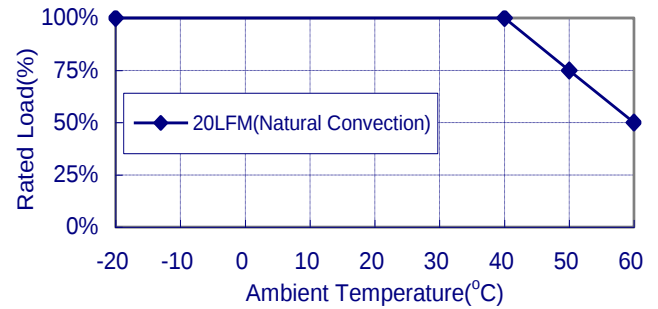
### GENERAL SPECIFICATIONS:

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Isolation .....             | Input to Output = 4,242VDC                        |
| Operating Temperature ..... | -20~60°C (See Derating Curve)                     |
| Storage Temperature .....   | -20~85°C                                          |
| Humidity .....              | 93% RH max. Non Condensing                        |
| Cooling .....               | Natural Convection                                |
| Switching Frequency .....   | 67KHz typ.                                        |
| MTBF .....                  | MIL-HDBK-217F, GB, 25°C/115VAC ..... 425Khrs min. |
| Altitude .....              | 2000m                                             |
| Dimensions .....            | 2.835x2.047x1.378Inches (72.00x52.00x35.00mm)     |
| Weight .....                | 140g (0.31 Pounds)                                |

### Mechanical Specification



## TRH25 Series Derating Curve



### SAFETY AND EMC:

Emission and Immunity ..... EN55032 Class B, FCC Part 15 Class B

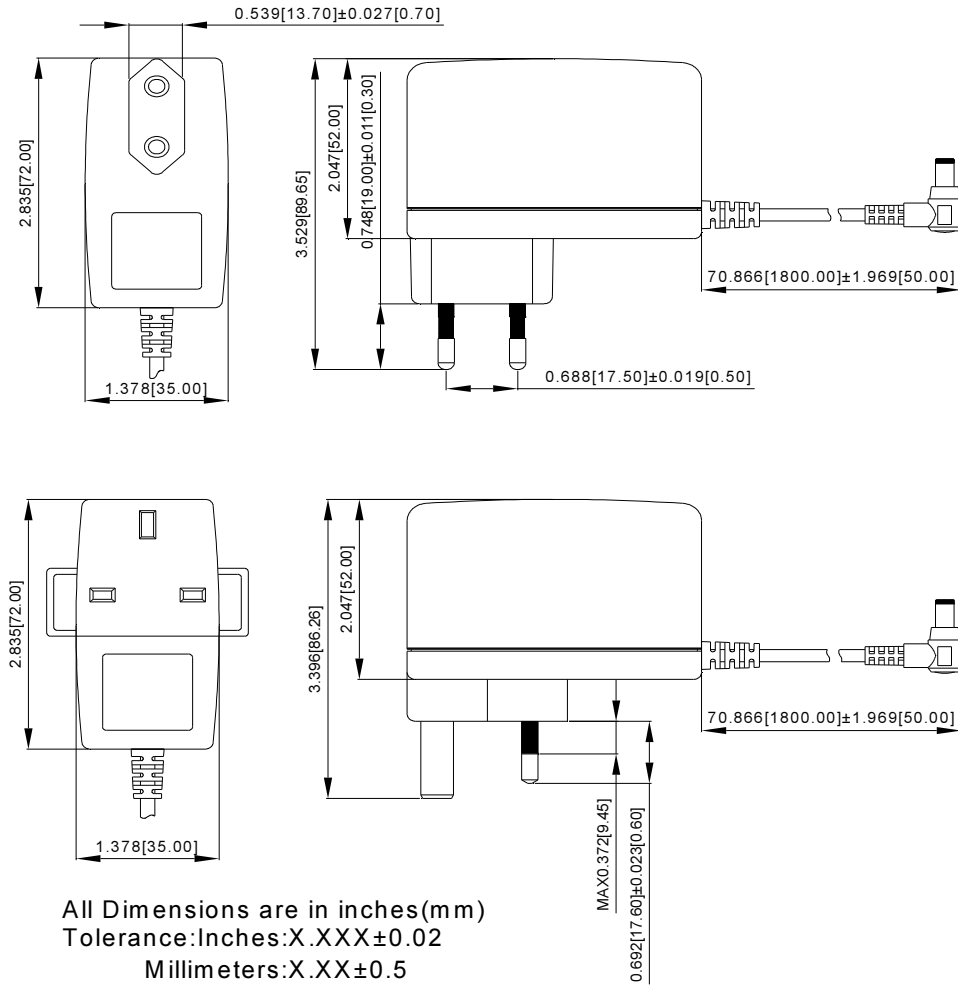
EN61000-6-3, EN61000-3-2, EN61000-3-3

EN55024, EN61204-3, EN61000-6-1

Safety ..... Class II, IEC/UL 60950-1

### NOTE:

1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for ripple&noise measuring @20MHz BW.
2. Voltage setpoint at 60% full load.
3. Line regulation measured from 100Vac to 240Vac, full load.
4. Load regulation measured from 60% to 100% full load and from 60% to 20% load (60% +/- 40% full load).



Typical at 25°C, nominal line and 75% load, unless otherwise Specified

# Mouser Electronics

Authorized Distributor

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## Cincon:

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