# **RiZ**Ö

# Triac Constant Current LED Driver

### Model No.: RZ-TD-100-400-12E; RZ-TD-350-700-12E







#### Features

- Dimming interface: Triac/ELV
- Apply to leading edge/trailing edge Triac dimmers and dimming system
- PW/M digital dimming, no alter LED color rending index
- 1 channel constant current output, configurable current via DIP switch
- Over-heat / Over-voltage / Over-load / Short circuit protection, recover automatically
- Full protective plastic case
- Suitable for indoor LED lighting application
- 5 Year, 50,000hr warranty

#### Mechanical Structures and Installations





#### **Technical Parameters**

| Model       |                         | RZ-TD-100-450-12E   | RZ-TD-350-700-12E |  |  |  |  |  |
|-------------|-------------------------|---|-------------------|--|--|--|--|--|
| Output      | Output Voltage          | 9-45VDC   | 3-24VDC           |  |  |  |  |  |
|             | Max Output Voltage      | 48VDC   | 30VDC             |  |  |  |  |  |
|             | Output Power            | Max.12W   | Max.12W           |  |  |  |  |  |
|             | Output Current          | 100-450mA   | 350-700mA         |  |  |  |  |  |
|             | Dimming Range           | 0~100%  |                   |  |  |  |  |  |
|             | PWM Frequency           | 2000Hz  |                   |  |  |  |  |  |
|             | Current Accuracy        | ±5%   |                   |  |  |  |  |  |
|             | Ripple & Noise          | < 100mV   |                   |  |  |  |  |  |
|             | Risetime                | 15/230VAC   |                   |  |  |  |  |  |
| Input       | Input Voltage Range     | 200~240VAC  |                   |  |  |  |  |  |
|             | Frequency Range         | 50/60Hz   |                   |  |  |  |  |  |
|             | Efficiency              | >78%/230VAC   |                   |  |  |  |  |  |
|             | Alternating Current     | 0.13A/230VAC  |                   |  |  |  |  |  |
|             | Inrush Current          | Cold start 16A at 230VAC  |                   |  |  |  |  |  |
|             | Anti Surge              | L-N:1KV   |                   |  |  |  |  |  |
|             | Leakage Current         | < 0.5mA/230VAC  |                   |  |  |  |  |  |
|             | No Load Power           | < 1.5W  |                   |  |  |  |  |  |
| Protection  | Over Load Power         | When O/P voltage exceed its range, O/P current declines, auto recovers when the load is reduced |                   |  |  |  |  |  |
|             | Short Circuit           | Shut down automatically if short circuit occurs, auto recovers.                                 |                   |  |  |  |  |  |
|             | Over Temperature        | Intelligently adjust or turn off the output current if the PCB temp > 100°C, auto recovers.     |                   |  |  |  |  |  |
|             | Woking Temperature      | -30°C~55°C  |                   |  |  |  |  |  |
|             | T-case Max              | 70°C  |                   |  |  |  |  |  |
|             | Working Humidity        | 20%~90%RH, non-condensing   |                   |  |  |  |  |  |
| Environment | Storage Temp/Humidity   | -40°C~80°C, 10%~95%RH   |                   |  |  |  |  |  |
|             | Temperature Coefficient | ±0.03%/°C (0-50%)   |                   |  |  |  |  |  |
|             | Vibration Resistance    | 10-500Hz, 2G, 6min/cycle, X,Y,Z axes/2min   |                   |  |  |  |  |  |
|             | IP Rating               | IP20  |                   |  |  |  |  |  |
| Safety&EMC  | Security Specifications | IEC/EN61347-1, IEC/EN61347-2-13   | 1                 |  |  |  |  |  |
|             | Withstand Voltage       | I/P-O/P: 3750VAC  |                   |  |  |  |  |  |
|             | Insulation Resistance   | I/P-O/P: 100MΩ/500VDC/25°C/70%RH  |                   |  |  |  |  |  |
|             | EMC Emission            | EN55015, EN61000-3-2 Class C, IEC61000-3-2  |                   |  |  |  |  |  |
|             | EMC Immunity            | EN61000-4-2.3.4.5.6.8.11, EN61347   |                   |  |  |  |  |  |
|             | Certications            | CE, EMC   |                   |  |  |  |  |  |



| Model             | 1 2 3          |       |       |       |       |       |       |       |       |
|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| RZ-TD-350-700-12E | Output Voltage | 3-24V | 3-24V | 3-24V | 3-24V | 3-22V | 3-20V | 3-18V | 3-17V |
|                   | Output Current | 350mA | 400mA | 450mA | 500mA | 550mA | 600mA | 650mA | 700mA |
| RZ-TD-100-450-12E | Output Voltage | 9-45V | 9-45V | 9-45V | 9-45V | 9-40V | 9-34V | 9-30V | 9-26V |
|                   | Output Current | 100mA | 150mA | 200mA | 250mA | 300mA | 350mA | 400mA | 450mA |

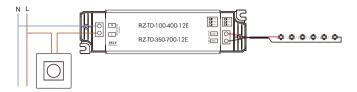
#### Applications

- Suitable for downlight, spotlight and decorative applications.
- Office / Commercial / Domestic Lighting, Hotels, Classrooms, Warehouse, Health care, Retail and Display.
- Use for retrofit upgrades & new luminaire designs.

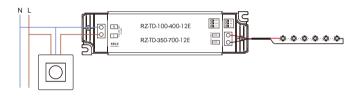
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### Wiring Diagram

1. Connect Triac dimmer(no Neutral wire)



2. Connect Triac dimmer(with Neutral wire)



## Triac Dimming Input

While connected with a Triac dimmer, such as Lutrom, Clipsal, Dynalite dimmer, different Triac dimmers from different suppliers may have different minimum dimming levels which the driver can not be dimmed below. To dim to 1%, please make sure the dimmer supports 1% minimum dimming level.

# Dimming Curve

