Triac Constant Current LED Driver

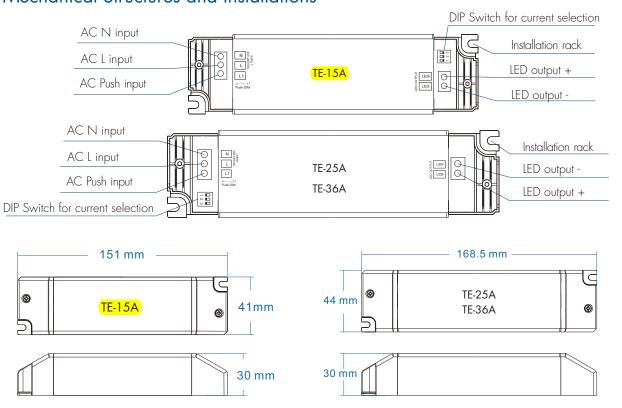
Model No.: TE-15A / TE-25A / TE-36A



Features

- Dimming interface: Triac/ELV, AC Push-Dim
- Apply to leading edge/trailing edge Triac dimmers and dimming system
- PWM digital dimming, no alter LED color rending index
- 1 channel constant current output, configurable current via DIP switch
- Over-heat / 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



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Technical Parameters

| Model | | TE-15A | TE-25A | TE-36A | | | | |
|-------------|-------------------------|---|----------------------------|----------------------------|--|--|--|--|
| Output | Output Voltage | 10 - 45VDC | 10-52VDC | 10-52VDC | | | | |
| | Output Current | 150-700mA | 250-900mA | 350-1200mA | | | | |
| | Output Power | Max. 15W | Max. 25W | Max. 36W | | | | |
| | Max Output Voltage | 48VDC 58VDC | | 58VDC | | | | |
| | Dimming Range | 0~100% | | | | | | |
| | PWM Frequency | 500Hz | | | | | | |
| | Current Accuracy | ±6% | ±3% | ±3% | | | | |
| | Rise Time | 430ms(700mA/22V) | 500ms(900mA/28V) | 500ms(1200mA/30V) | | | | |
| Input | Input Voltage Range | 200VAC~240VAC | | | | | | |
| | Frequency Range | 50/60Hz | | | | | | |
| | Efficiency | >80%/220VAC | >80%/220VAC | >82%/220VAC | | | | |
| | Alternating Current | 0.15A/220VAC | 0.22A/220VAC | 0.34A/220VAC | | | | |
| | THD | >15%/220VAC | >15%/220VAC | >15%/220VAC | | | | |
| | Inrush Current | Cold start 16A at 230VAC | Cold start 27.5A at 230VAC | Cold start 27.5A at 230VAC | | | | |
| | Leakage Current | < 0.5mA/230VAC | < 0.5mA/230VAC | < 0.5mA/230VAC | | | | |
| | No Load Power | < 1W | < 1.9W | < 1.9W | | | | |
| 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 $> 100\%$, auto recovers. | | | | | | |
| Environment | Woking Temperature | -30℃~55℃ | | | | | | |
| | T-case Max | 70℃ | | | | | | |
| | Working Humidity | 20%~90%RH, non-condensing | | | | | | |
| | 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 | | | | | | |
| | Withstand Voltage | I/P-O/P: 3750VAC | | | | | | |
| | Insulation Resistance | I/P-O/P: 100MΩ/500VDC/25℃/70%RH | | | | | | |
| | EMC Emission | EN55015, EN61000-3-2 Class C, IEC61000-3-3 | | | | | | |
| | EMC Immunity | EN61000-4-2.3.4.5.6.8.11, EN61547 | | | | | | |
| | Certications | CE, EMC | | | | | | |

LED Current Selection:

| DIP switch | 1 2 3 | | | | | | | | |
|------------|----------------|-----------|---------|-----------|---------|---------|---------|----------|---------|
| TE-15A | Output Voltage | 10-45V | 10-45V | 10-43V | 10-38V | 10-34V | 10-30V | 10-23V | 10-22V |
| | Output Current | 150mA | 200mA | 350mA | 400mA | 450mA | 500mA | 650mA | 700mA |
| | Output Power | 1.5-6.75W | 2-9W | 3.5-15W | 4-15W | 4.5-15W | 5-15W | 6.5-15W | 7-15W |
| TE-25A | Output Voltage | 10-52V | 10-52V | 10-52V | 10-52V | 10-50V | 10-42V | 10-36V | 10-28V |
| | Output Current | 250mA | 300mA | 350mA | 400mA | 500mA | 600mA | 700mA | 900mA |
| | Output Power | 2.5-13W | 3-15.6W | 3.5-18.2W | 4-20.8W | 5-25W | 6-25.2W | 7-25.2W | 9-25.2W |
| TE-36A | Output Voltage | 10-52V | 10-52V | 10-52V | 10-52V | 10-45V | 10-40V | 10-35V | 10-30V |
| | Output Current | 350mA | 500mA | 600mA | 700mA | 800mA | 900mA | 1050mA | 1200mA |
| | Output Power | 3.5-18.2W | 5-26W | 6-31.2W | 7-36.4W | 8-36W | 9-36W | 10.5-36W | 12-36W |

Applications

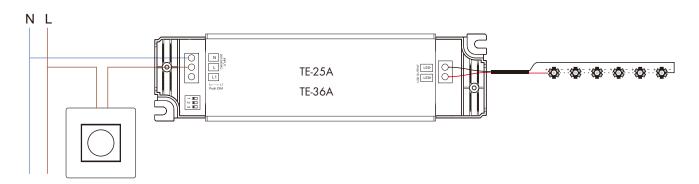
- Suitable for downlight, spotlight and decorative applications.
- Office / Commercial / Domestic Lighting, Hotels, Classrooms, Warehouse, Health care, Retail and Display.

• Use for retrofit upgrades & new luminaire designs.

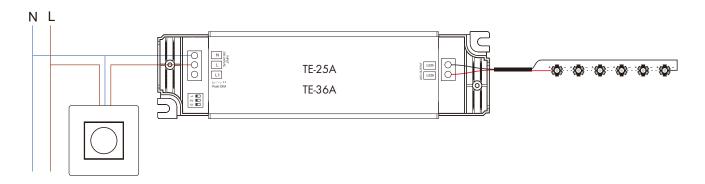
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Wiring Diagram

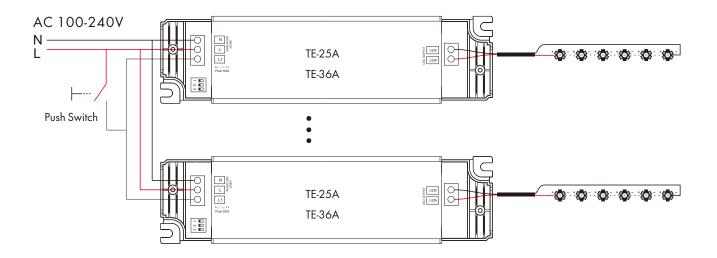
1. Connect Triac dimmer(no Neutral wire)



2. Connect Triac dimmer(with Neutral wire)



3. Connect AC Push switch



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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.

AC Push-Dim input

The provided AC Push-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switchs.

• Short press:

Turn on or off light.

• Long press (1-6s):

Press and hold to step-less dimming,

With every other long press, the light level goes to the opposite direction.

• Dimming memory:

Light returns to the previous dimming level when switched off and on again, even at power failure.

• Synchronization:

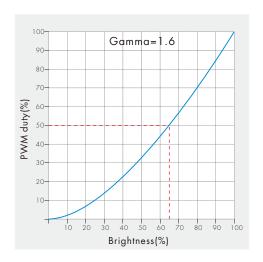
If more than one LED driver are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.

This means there is no need for any additional synchrony wire in larger installations.

We recommend the number of LED drivers connected to a push switch does not exceed 25 pieces,

The maximum length of the wires from push to LED driver should be no more than 20 meters.

Dimming Curve



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