



## 75W TRC-075 Dimmable Series

### Switch Mode LED Drivers - Constant Current

#### Electrical Specifications

|                            |                                                                                                                                          |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage Range:       | 100-277 VAC Nom. (90-305 V Min/Max)                                                                                                      |
| Frequency:                 | 50/60 Hz Nom. (47-63 Hz Min/Max)                                                                                                         |
| Power Factor:              | >0.90 @ full load, 100V through 277V                                                                                                     |
| Typical Efficiency         | 86-92% typical @ maximum load                                                                                                            |
| Inrush Current:            | 60 Amps @ 230 Vac                                                                                                                        |
| Input Current:             | 0.90 A @ 100 Vac, 0.42 A @ 220 Vac                                                                                                       |
| Maximum Power:             | 75W                                                                                                                                      |
| Line Regulation:           | ± 1%                                                                                                                                     |
| Load Regulation:           | ± 3%                                                                                                                                     |
| Total Harmonic Distortion: | <20%                                                                                                                                     |
| Turn-on Delay:             | 0.8S @ 120 Vac, 0.4S @ 220 Vac                                                                                                           |
| Protection:                | Output Over-Voltage, Output Over-Current,<br>Output Short Circuit Protection with Auto Recovery,<br>Over-Temperature Protections (110°C) |

#### Environmental Specifications

|                        |                                                |
|------------------------|------------------------------------------------|
| Max Case Temperature:  | 87°C                                           |
| Minimum Starting Temp: | -40°C                                          |
| Storage Temperature:   | -40°C to +85°C                                 |
| Humidity:              | 10% to 100%                                    |
| Cooling:               | Convection                                     |
| Sound Rating:          | Class A                                        |
| MTBF:                  | 320,000 Hours @ 25°C ambient, 80% load, 110Vac |
| Lifetime:              | 107,000 Hours @ Tc=60°C, 80% load, 110Vac      |
| Weight:                | 1.65 lbs (750 g)                               |



- Total Power: 75 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP67
- High Efficiency
- High Power Factor with Active Correction
- Output and Lightning Protection

| Model Number  | Output Current<br>(mA ±5%) | Output Voltage<br>Range (Vdc) | Max. Output<br>Power (W) | Max<br>Efficiency |
|---------------|----------------------------|-------------------------------|--------------------------|-------------------|
| TRC-075S035DT | 350                        | 107-214                       | 75                       | 90%               |
| TRC-075S045DT | 450                        | 83-166                        | 75                       | 90%               |
| TRC-075S070DT | 700                        | 54-108                        | 75                       | 90%               |
| TRC-075S105DT | 1050                       | 36-72                         | 75                       | 89%               |
| TRC-075S140DT | 1400                       | 27-54                         | 75                       | 89%               |
| TRC-075S210DT | 2100                       | 18-36                         | 75                       | 88%               |
| TRC-075S280DT | 2800                       | 13-27                         | 75                       | 88%               |
| TRC-075S375DT | 3750                       | 10-20                         | 75                       | 87%               |
| TRC-075S500DT | 5000                       | 7-15                          | 75                       | 87%               |

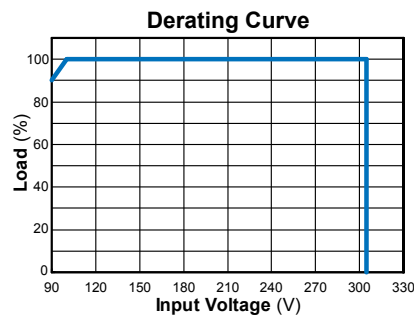
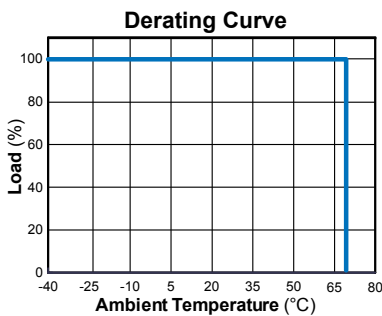
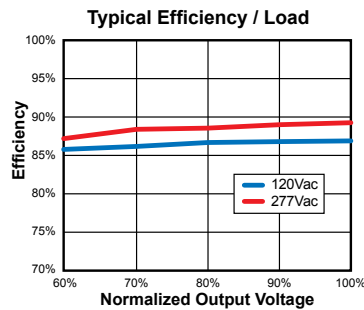
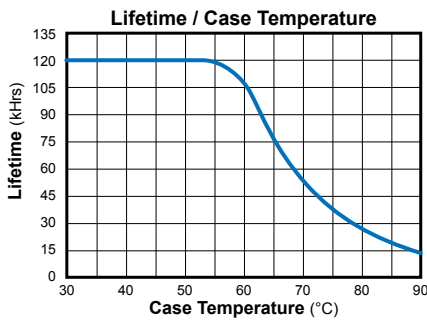
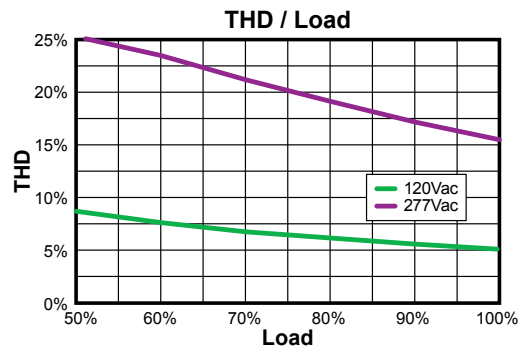
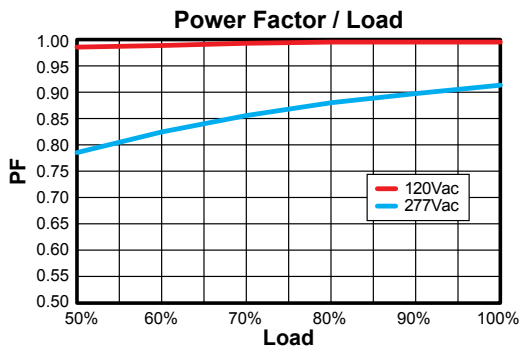
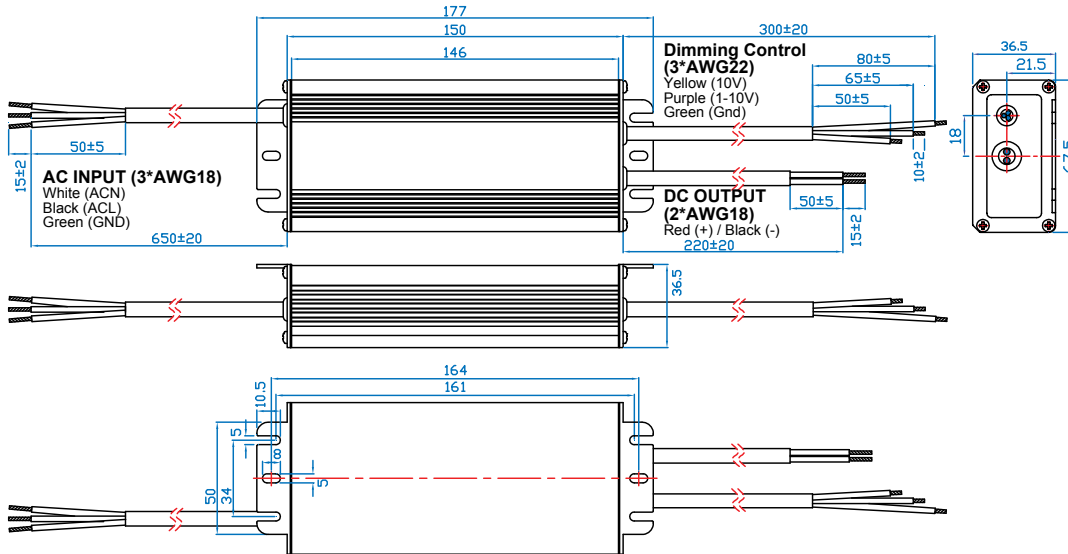
Class 2: US/Canada US Only



**Note:**  
LED drivers are designed and intended to operate LED loads only.  
Non-LED loading may be outside the specified design limits of our  
LED drivers, and therefore cannot be covered by any warranty.  
If you desire to use our LED drivers to operate non-LED loads  
please contact us to discuss compatibility.

Specifications subject to change without notice.

Rev 9-1-15



## Safety and EMC Compliance

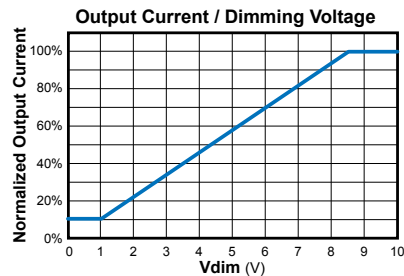
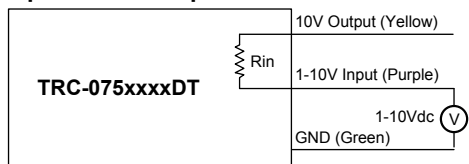
|                       |                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| UL/CUL CE             | UL 8750, UL923, IL1012, UL1310 Class 2<br>EN 61347-1, EN61347-2-13                                                                                        |
| EN 55015              | Conducted emission                                                                                                                                        |
| EN 61000-3-2          | Harmonic current emissions                                                                                                                                |
| EN 61000-3-3          | Voltage fluctuations and flicker                                                                                                                          |
| EN 61000-4-2          | Electrostatic discharge                                                                                                                                   |
| EN 61000-4-3          | RFE Field Susceptibility test                                                                                                                             |
| EN 61000-4-4          | Electrical Fast Transient                                                                                                                                 |
| EN 61000-4-5          | Surge Immunity Test, AC Power Line:<br>line to line 4 kV; line to earth 6 kV                                                                              |
| EN 61000-4-6          | Conducted Radio Frequency                                                                                                                                 |
| EN 61000-4-8          | Power Frequency Magnetic Field Test                                                                                                                       |
| EN 61000-4-11         | Voltage Dips                                                                                                                                              |
| EN 61547              | Electromagnetic Immunity                                                                                                                                  |
| ANSI/IEEE C62.41-1991 | Transient Protection. The line transient shall consist of seven strikes of a 100 kHz ring wave, 2.5 kV level, for both common mode and differential mode. |

## Dimming Control Details

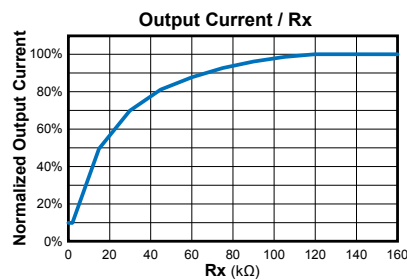
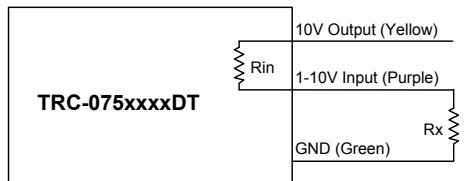
| Parameters                                                                                                            | Minimum   | Typical | Maximum |
|-----------------------------------------------------------------------------------------------------------------------|-----------|---------|---------|
| 10V output voltage                                                                                                    | 9.8 V     | 10 V    | 10.2 V  |
| 10V output source current                                                                                             | 0 mA      | —       | 10 mA   |
| Absolute maximum voltage on the 0-10V input pin                                                                       | -2 V      | —       | 12 V    |
| Source current on 0-10V input pin                                                                                     | 0 $\mu$ A | —       | 0.5 mA  |
| Value of Rin (the resistor inside the LED driver which is located between the 1-10V input pin and the 10V output pin) | 19.8K     | 20K     | 20.2K   |

The dimmer control is operated from either a potentiometer or from an input signal of 1 – 10 Vdc. Recommended implementations are provided below.

### Option 1 - DC Input



### Option 2 - External Resistor



### Notes:

1. If the dimming function is not used, the dimming leads should be floated.
2. Io is actual output current and Ir is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 50% of the max. output voltage for any given model).
4. If the output voltage is maintained above 50% of the maximum output voltage, the dimming control may be operated over the entire 1-10V range with output current varying from 100% down to practically 10%.
5. The dimming signal is allowed to be less than 1V, however, when 0-1V, the output current can maintain about 10%Ir. When 8.5-10V, the output current can maintain about 100%Ir.
6. Do not connect the GND of dimming to the output; otherwise the LED driver will not function properly.