



## TRC-150W Dimmable Series

Switch Mode LED Drivers  
Constant Current  
Aluminum Housing

### Electrical Specifications

|                      |                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------|
| Input Voltage Range: | 100 - 277 Nom. Vac (90 - 305 V Min/Max)                                                            |
| Frequency:           | 50/60 Hz Nom. (47-63 Hz Min/Max)                                                                   |
| Power Factor:        | >0.90 @ full load, 100V through 277V                                                               |
| Inrush Current:      | 65 Amps maximum @ 230 Vac, cold start 25°C                                                         |
| Input Current:       | 1.8 A max 100Vac, 0.9 A max 220Vac                                                                 |
| Maximum Power:       | 150W                                                                                               |
| Line Regulation:     | ± 1%                                                                                               |
| Load Regulation:     | ± 3%                                                                                               |
| Leakage Current:     | 0.75 mA 277 Vac 60Hz                                                                               |
| Typical Efficiency   | 92.5%-93.5% at 220Vac                                                                              |
| Turn-on Delay:       | 0.5S typical 110Vac, 0.3S typical 220Vac                                                           |
| Ripple and Noise:    | 13V at 350 mA                                                                                      |
| Protection:          | Over-Voltage, Over-Temperature (110°C), Lightning, and Short Circuit Protection with Self Recovery |

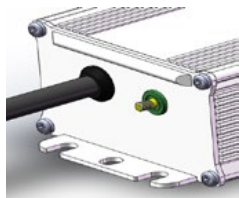
### Environmental Specifications

|                        |                                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum Starting Temp: | -35°C                                                                                                                                                                                                       |
| Storage Temperature:   | -40°C to +85°C                                                                                                                                                                                              |
| Humidity:              | 5% to 100%                                                                                                                                                                                                  |
| Cooling:               | Convection                                                                                                                                                                                                  |
| Sound Rating:          | Class A                                                                                                                                                                                                     |
| MTBF:                  | 250,000 Hours (350 mA model) @ 110Vac input, 80% load and 25°C ambient conditions per MIL-HDBK-217F<br>230,000 Hours (1400 mA model) @ 110Vac input, 80% load and 25°C ambient conditions per MIL-HDBK-217F |
| Lifetime:              | 350mA: 58,000 Hours @ 220Vac, 80% load, Tc=60°C<br>1400mA: 88,000 Hours @ 220Vac, 80% load, Tc=60°C                                                                                                         |
| Weight:                | 3.31 lbs. (1.5 kg)                                                                                                                                                                                          |

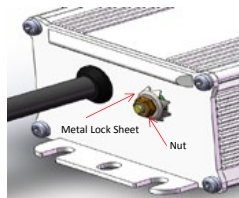


- Total Power: 150 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP67
- Ultra-high Efficiency
- High Power Factor with Active Correction
- UL8750

### New Surge Protection and HI-POT Testing



HI-POT Test



Normal Application

The new design of this LED driver provides 1.4KV surge protection. To properly HI-POT test this unit, the surge protection must be disconnected. The screw, nut, and metal lock sheet on the input side of the driver provide for this. To test, first remove the nut and lock sheet as shown. After testing, secure the nut and lock sheet to provide line-to-earth protection.

This HI-POT test feature is available on product manufactured after August 15, 2015.

### Dimming - Product Specifications

| Model Number  | Output Current (mA)* | Output Voltage Range (Vdc) | Max. Output Power (W) | Typical Efficiency |
|---------------|----------------------|----------------------------|-----------------------|--------------------|
| TRC-150S035DT | 350                  | 214~428                    | 150                   | 93.5%              |
| TRC-150S045DT | 450                  | 166~333                    | 150                   | 93.0%              |
| TRC-150S070DT | 700                  | 107~214                    | 150                   | 93.0%              |
| TRC-150S105DT | 1050                 | 107~142                    | 150                   | 93.0%              |
| TRC-150S140DT | 1400                 | 53~107                     | 150                   | 92.5%              |

\* The output current is adjustable at factory from 50% to 100%.

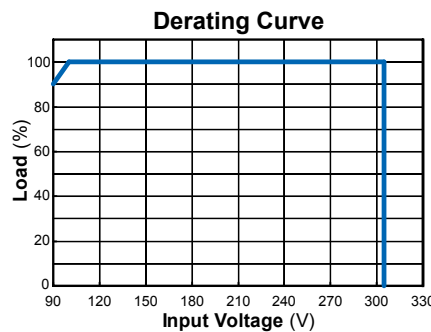
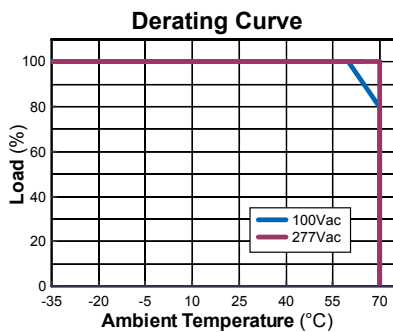
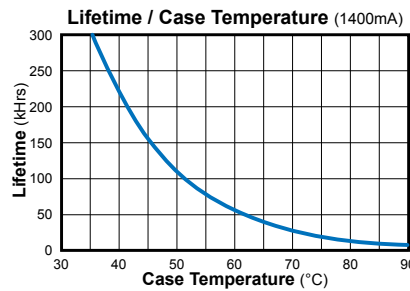
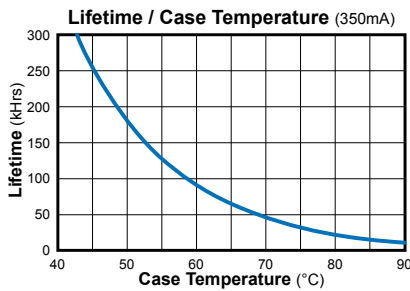
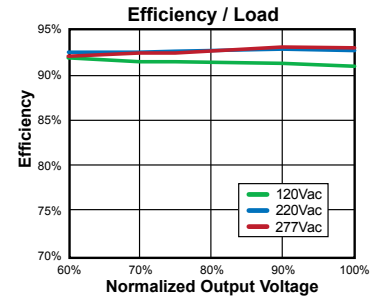
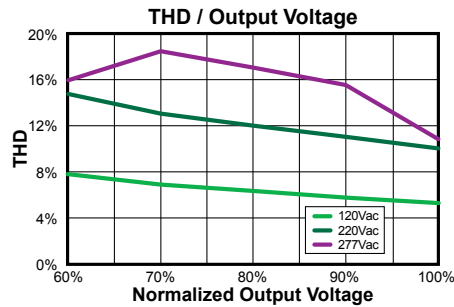
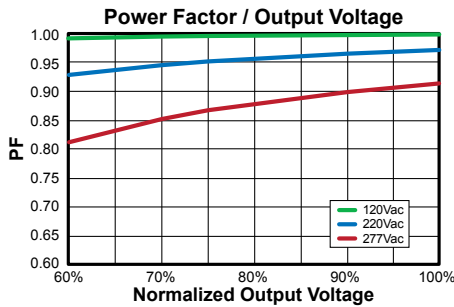
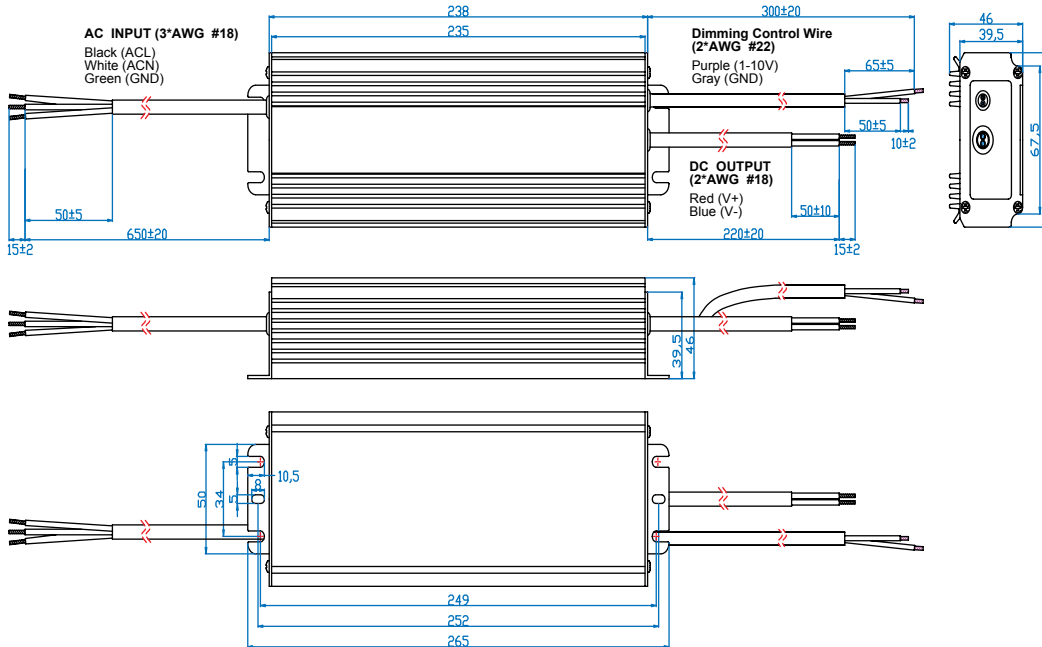


#### Note:

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

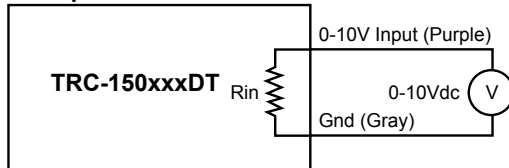


## Dimming Control (on secondary side)

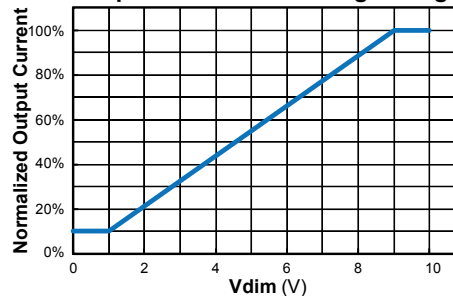
| Parameters                                      | Minimum   | Typical | Maximum |
|-------------------------------------------------|-----------|---------|---------|
| Absolute maximum voltage on the 0~10V input pin | -2 V      | —       | 12 V    |
| Source current on 0~10V input pin               | 0 $\mu$ A | —       | 1 mA    |

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

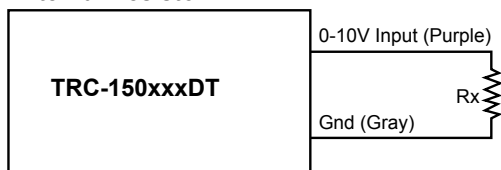
### DC Input



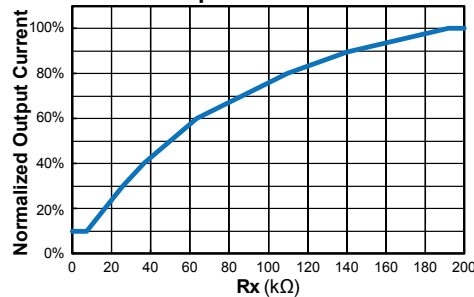
### Output Current / Dimming Voltage



### External Resistor



### Output Current / Rx



### Notes:

1.  $I_o$  is actual output current and  $I_r$  is rated current without dimming control.
2. 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).
3. 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 10% to 100% of  $I_r$ .
4. The dimming input signal may be less than 1V; however, no further dimming will occur between 0V and 1V.
5. The internal resistor  $R_{in}$  is 20K, and  $V_{cc}$  is about 15V.
6. Do not connect the GRAY of dimming to the output; otherwise, the LED driver can not work normally.

| Safety and EMC Compliance |                                                                           |
|---------------------------|---------------------------------------------------------------------------|
| UL/CUL                    | UL8750, UL1012, UL935, CSA-C22.2 No. 107.1-01                             |
| C E                       | EN 61347-1, EN61347-2-13                                                  |
| EN 55015                  | Conducted emission Test & Radiated emission Test                          |
| EN 61000-3-2              | Harmonic current emissions                                                |
| EN 61000-3-3              | Voltage fluctuations & flicker                                            |
| EN 61000-4-2              | Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge |
| EN 61000-4-3              | Radio-Frequency Electromagnetic Field Susceptibility Test-RS              |
| EN 61000-4-4              | Electrical Fast Transient / Burst-EFT                                     |
| EN 61000-4-5              | Surge Immunity Test: AC Power Line: line to line 2 kV, line to earth 4 kV |
| EN 61000-4-6              | Conducted Radio Frequency Disturbances Test-CS                            |
| EN 61000-4-8              | Power Frequency Magnetic Field Test                                       |
| EN 61000-4-11             | Voltage Dips                                                              |
| EN 61547                  | Electromagnetic Immunity Requirements Applies to Lighting Equipment       |