



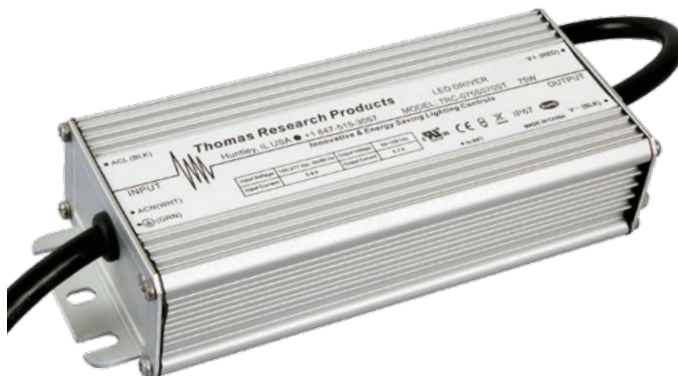
TRC-100 Series—Fixed Output and Dimmable 100W Switch Mode Constant Current LED Drivers, Damp & Wet Location Rated

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 @ 75-100% load, 100-277V |
| Input Current: | 1.30 A @ 100 Vac |
| Inrush Current: | 65 A @ 230Vac 25° Cold Start |
| Maximum Power: | 100W |
| THD: | ≤ 20% @ 75-100% load, 100-277V |
| Line Regulation: | ± 1% |
| Load Regulation: | ± 3% |
| Leakage Current: | 1 mA @ 277Vac |
| Typical Efficiency: | 90-91% typical @ maximum load |
| Turn-on Time Delay: | 2.0S max @ 120V, 1.2S max @ 220V |
| Protection: | Over-Voltage, Over-Current, Over-Temperature (100°C), Output Short Circuit Protection with Self Recovery |

Environmental Specifications

| | |
|------------------------|--|
| Minimum Starting Temp: | -35°C |
| Maximum Case Temp. | ST: 90°C, DT: 89.5°C |
| Storage Temperature: | -40°C to +85°C |
| Humidity: | 10% to 100% |
| Cooling: | Convection |
| Sound Rating: | Class A |
| MTBF: | 250,000 Hours @ 120Vac, 80% load, 25°C ambient, per MIL-HDBK-217F |
| Lifetime: | 75,000 Hours @ 220Vac, 80% load, 25°C |
| Weight: | 2.20 lbs (1000g) |



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

Constant Current - Product Specifications

| Model Number | Output Current (mA ±5%) | Output Voltage Range (Vdc) | Max. Output Power (W) | Typical Efficiency |
|---------------|----------------------------|-------------------------------|--------------------------|-----------------------|
| TRC-100S035ST | 350 | 172-286 | 100 | 92% |
| TRC-100S045ST | 450 | 132-222 | 100 | 92% |
| TRC-100S070ST | 700 | 86-143 | 100 | 91% |
| TRC-100S105ST | 1050 | 57-95 | 100 | 91% |
| TRC-100S140ST | 1400 | 43-71 | 100 | 91% |
| TRC-100S175ST | 1750 | 34-57 | 100 | 91% |
| TRC-100S210ST | 2100 | 29-48 | 100 | 91% |
| TRC-100S245ST | 2450 | 25-41 | 100 | 91% |
| TRC-100S280ST | 2800 | 22-36 | 100 | 90% |
| TRC-100S315ST | 3150 | 19-32 | 100 | 90% |
| TRC-100S357ST | 3570 | 17-28 | 100 | 90% |
| TRC-100S420ST | 4200 | 14-24 | 100 | 90% |

Output current is adjustable at the factory from 50-100%

Dimming - Product Specifications

| Model Number | Output Current (mA ±5%) | Output Voltage Range (Vdc) | Max. Output Power (W) | Typical Efficiency |
|---------------|----------------------------|-------------------------------|--------------------------|-----------------------|
| TRC-100S035DT | 350 | 172-286 | 100 | 91% |
| TRC-100S045DT | 450 | 132-222 | 100 | 91% |
| TRC-100S070DT | 700 | 86-143 | 100 | 90.5% |
| TRC-100S105DT | 1050 | 57-95 | 100 | 90.5% |
| TRC-100S140DT | 1400 | 43-71 | 100 | 90.5% |
| TRC-100S175DT | 1750 | 34-57 | 100 | 90.5% |
| TRC-100S210DT | 2100 | 29-48 | 100 | 90.5% |
| TRC-100S245DT | 2450 | 25-41 | 100 | 90.5% |
| TRC-100S280DT | 2800 | 22-36 | 100 | 90% |
| TRC-100S315DT | 3150 | 19-32 | 100 | 90% |
| TRC-100S357DT | 3570 | 17-28 | 100 | 90% |
| TRC-100S420DT | 4200 | 14-24 | 100 | 90% |

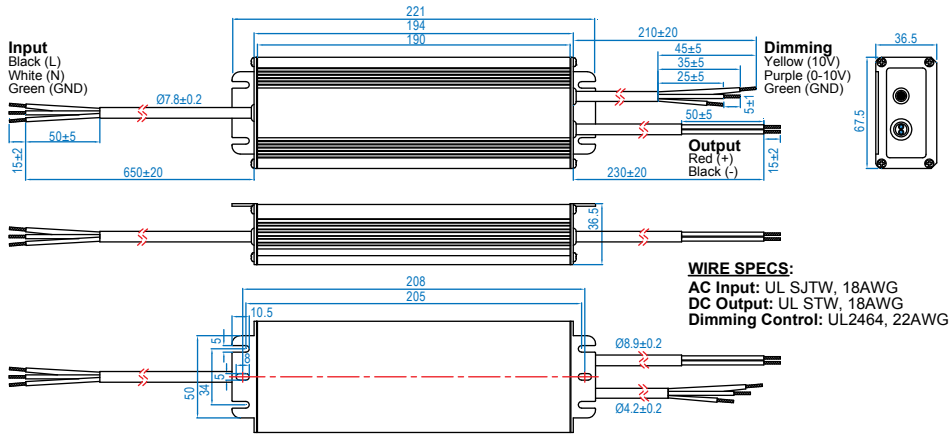


Note:
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

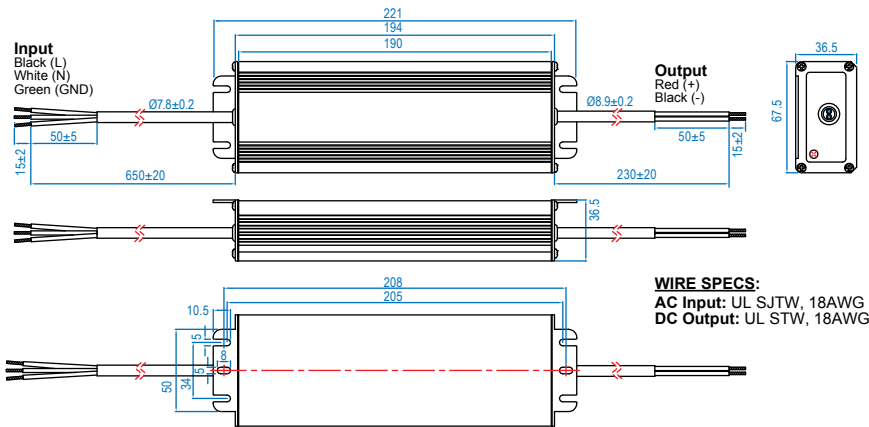
Specifications subject to change without notice.

Rev 9-1-15

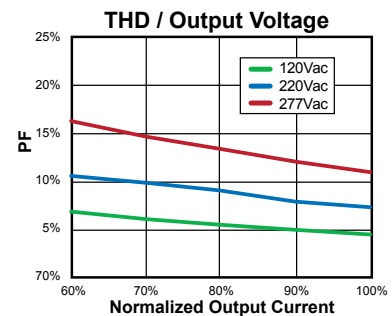
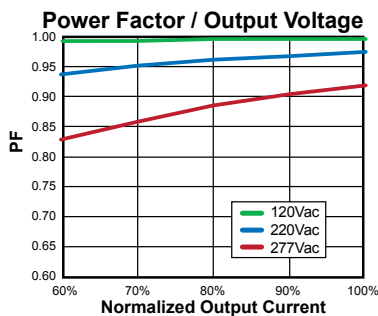
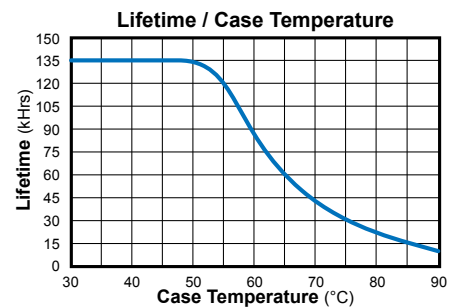
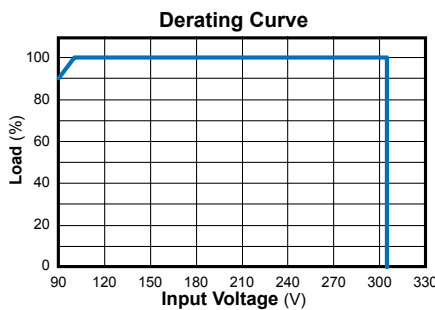
Dimming:



Fixed:



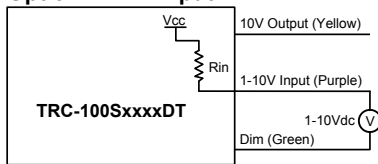
| Safety and EMC Compliance | |
|---------------------------|---|
| CUL | UL 8750, UL1012, CSA-C22.2 No. 107.1 |
| CE | EN 61347-1, EN61347-2-13 |
| EN 55015 | Conducted emission |
| EN 61000-3-2 | Harmonic current emissions |
| EN 61000-3-3 | Voltage fluctuations and flicker |
| EN 61000-4-2 | Electrostatic 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: 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 |



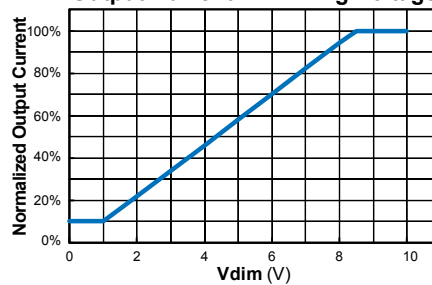
Dimming Control Details

| Parameters | Minimum | Typical | Maximum |
|---|---------|---------|---------|
| Vcc | 9.5 V | 10 V | 10.5 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 mA | — | 0.5 mA |
| Value of Rin (the resistor inside the LED driver which locate between the 1-10V input and 10V output pin) | 19.8 K | 20 K | 20.2 K |

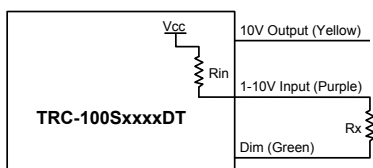
Option 1 - DC Input



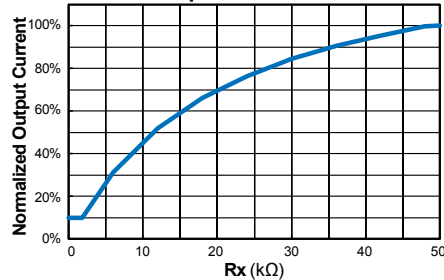
Output Current / Dimming Voltage



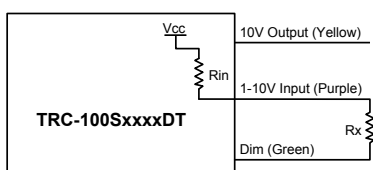
Option 2 - External Resistor (Vcc=12V)



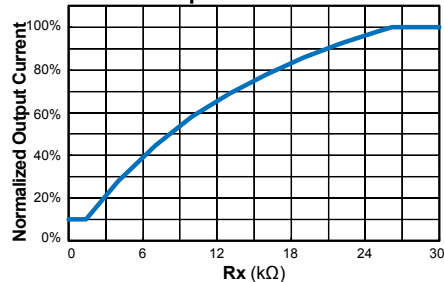
Output Current / Rx



Option 3 - External Resistor (Vcc=15V)



Output Current / Rx



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. 60% of the max. output voltage for any given model).
4. If the output voltage is maintained above 60% 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, for 0-1V, the output current can maintain about 10% Ir. For 8.5-10V, the output current can maintain about 100% Ir.
6. Do not connect the dimming GND to the output; otherwise, the LED driver cannot work normally.