



## TRC-025 Series—Fixed Output and Dimmable 25W Switch Mode LED Drivers Constant Current, Long Life

### Electrical Specifications

Input Voltage Range:	120 - 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
Input Current:	0.32 A @ 100Vac, 0.15 A @ 220Vac
Inrush Current:	60.0 Amps @ 230Vac, 25°C Cold Start
Efficiency	85-85% typical @ maximum load
Maximum Power:	25W
Line Regulation:	± 3%
Load Regulation:	± 5%
Turn-on Time Delay:	3S
Output Protection:	Over-Voltage, Over-Current, Short Circuit Protection with Auto Recovery

### Environmental Specifications

Minimum Starting Temp:	-20°C
Maximum Case Temp.	89°C
Storage Temperature:	-40°C to +85°C
Humidity:	10% to 100%
Cooling:	Convection
Sound Rating:	Class A
MTBF:	484,000 Hours @ 25°C, 80% load, 110Vac input on 2080 mA output model (MIL-HDBK-217F)
Lifetime:	79,000 Hours @ 45°C, 80% load, 110Vac input on 2080 mA output model
Weight:	0.4 lbs.



- Total Power: 25 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66
- High Efficiency
- High Power Factor

### Constant Current Versions - Product Specifications

Model Number	Output Current (mA)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
TRC-025S035PS	350	24-72	25	84%
TRC-025S045PS	450	19-56	25	84%
TRC-025S062PS	620	13-40	25	83%
TRC-025S070PS	700	12-36	25	83%
TRC-025S105PS	1050	8-24	25	82%
TRC-025S140PS	1400	6-18	25	81%
TRC-025S175PS	1750	5-14	25	81%
TRC-025S208PS	2080	4-12	25	80%

### Dimmable Versions - Product Specifications

Model Number	Output Current (mA)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
TRC-025S035DS	350	24-72	25	84%
TRC-025S045DS	450	19-56	25	84%
TRC-025S062DS	620	13-40	25	83%
TRC-025S070DS	700	12-36	25	83%
TRC-025S105DS	1050	8-24	25	82%
TRC-025S140DS	1400	6-18	25	81%
TRC-025S175DS	1750	5-14	25	81%
TRC-025S208DS	2080	4-12	25	80%

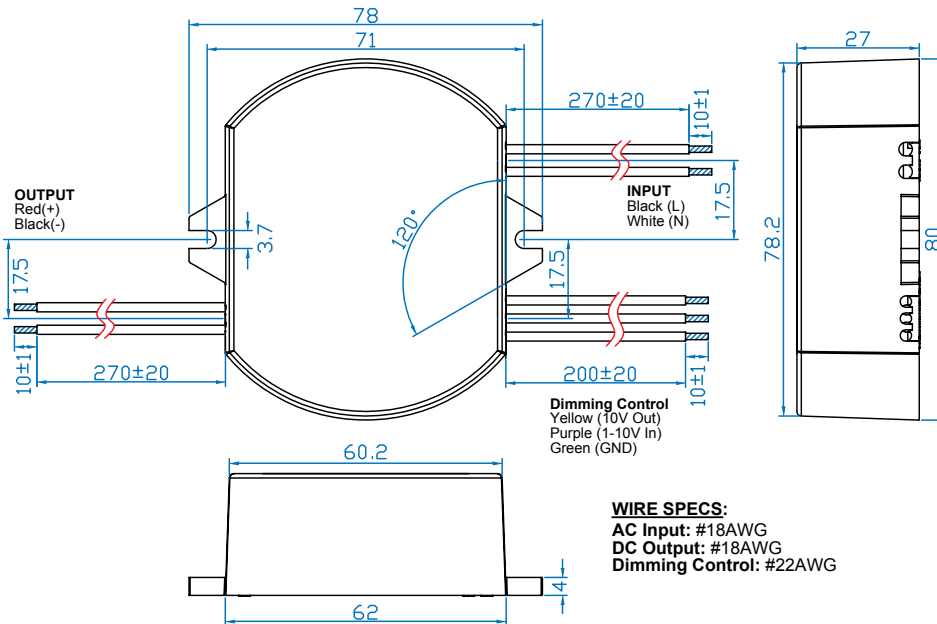
Class 2: US/Canada US Only



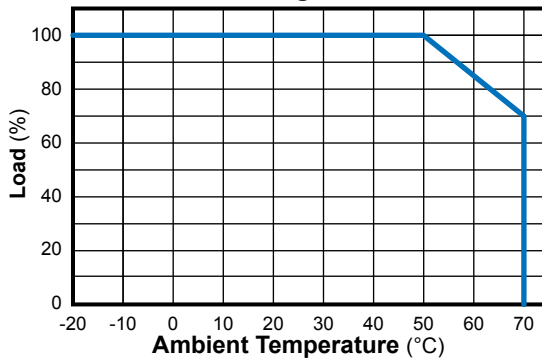
**Note:**  
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

Specifications subject to change without notice.

Rev 9-15-14



**Derating Curve**



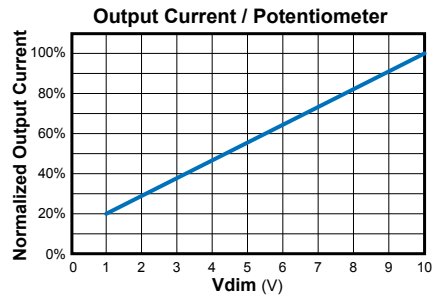
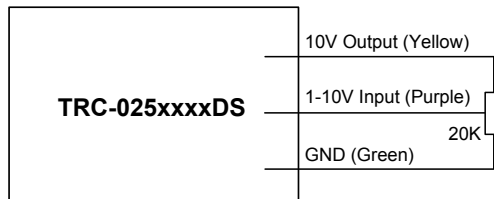
Safety and EMC Compliance	
CUL	UL 8750
CE	EN 61347-1, EN61347-2-13
EN 55015	Conducted emission
EN 61000-3-2	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations and flicker
EN 61000-4-2	Electrostatic discharge
EN 61000-4-3	RFE Field Susceptibility test
EN 61000-4-4	Electrical Fast Transient
EN 61000-4-6	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

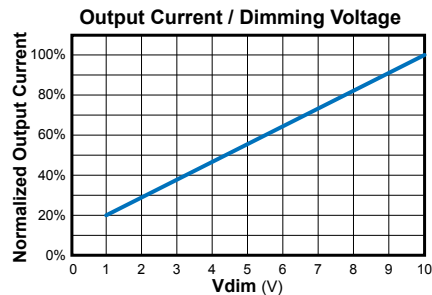
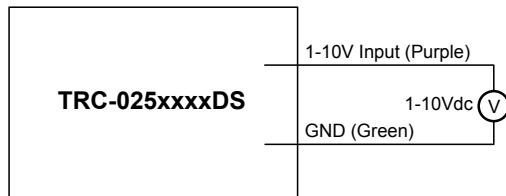
Parameters	Minimum	Typical	Maximum
10V output voltage	9.8 V	10 V	10.2 V
10V output source current	-10 mA	—	2 mA
Absolute maximum voltage on the 0-10V input pin	-2 V	—	15 V
Source current on 0-10V input pin	0 mA	—	1 mA

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 - Potentiometer Control



### Option 2 - DC Input



### Notes:

1. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 33% of the max. output voltage for any given model).
2. If the dimming voltage is varied from 10V down to 0V, the output current can be varied from 100% I<sub>o</sub> down to 20-30% I<sub>o</sub>.
3. Do not connect the GND of dimming to V(-) or earth ground; otherwise the LED driver will not work properly.
4. If dimming is not required, connect yellow and purple leads together to get full current output (100%).
5. It is permissible to parallel driver outputs to achieve higher output currents. However, when doing so, it is not permissible to connect dimming control leads in parallel.
6. It is permissible to connect dimming control leads of multiple drivers in parallel to allow them to operate from a single 0-10V control. However, when doing so, it is not permissible to interconnect output leads (red and black) across drivers.