



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## TRC-040DS Series—Fixed Output and Dimmable 40W Switch Mode LED Drivers Constant Current, Long Life

### 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 100-220V, >0.80 @ full load 277V
Inrush Current:	60.0 Amps max @ 230Vac
Input AC Current:	0.48 A max 100Vac, 0.23 A max 220Vac
Line Regulation:	± 2% Vac
Load Regulation:	± 5%
Typical Efficiency	85-88% typical @ maximum load
Protection:	Over-Voltage, Output Over-Current, Output Short Circuit Protection with Auto Recovery

### Environmental Specifications

Minimum Starting Temp:	-35°C
Maximum Case Temp.	87.5°C for 350 & 450 mA, 83°C for all others
Storage Temperature:	-40°C to +85°C
Humidity:	10% to 100%
Cooling:	Convection
Sound Rating:	Class A
MTBF:	487,000 Hours @ 25°C, 80% load, 110Vac input on 3330 mA output model (MIL-HDBK-217F)
Lifetime:	77,000 Hours @ 25°C, 80% load, 110Vac input on 3330 mA output model
Weight:	0.79 lbs (360 g)



- Total Power: 40 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 ±5%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
TRC-040S035PS	350	38-114	40	88%
TRC-040S045PS	450	30-89	38	88%
TRC-040S070PS	700	18-54	37.8	87%
TRC-040S105PS	1050	12-36	38	87%
TRC-040S128PS	1280	10-29	36	87%
TRC-040S140PS	1400	10-25	38	87%
TRC-040S166PS	1660	8-23	38	86%
TRC-040S222PS	2220	6-16	36	85%
TRC-040S333PS	3330	4-11	35	84%

### Dimmable Versions - Product Specifications

Model Number	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
TRC-040S035DS	350	38-114	40	88%
TRC-040S045DS	450	30-89	38	88%
TRC-040S070DS	700	18-54	37.8	87%
TRC-040S105DS	1050	12-36	38	87%
TRC-040S128DS	1280	10-29	36	87%
TRC-040S140DS	1400	10-25	38	87%
TRC-040S166DS	1660	8-23	38	86%
TRC-040S222DS	2220	6-16	36	85%
TRC-040S333DS	3330	4-11	35	84%

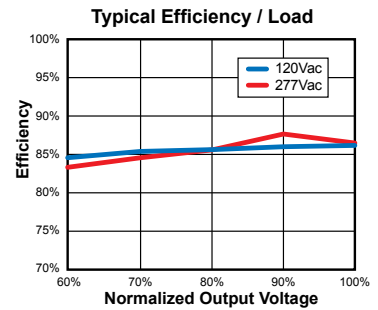
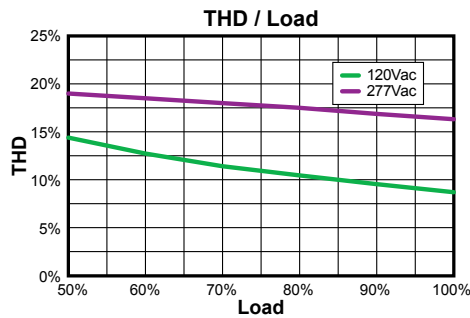
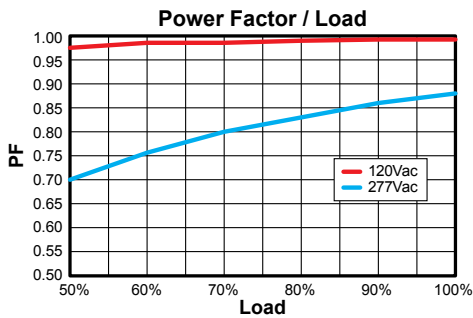
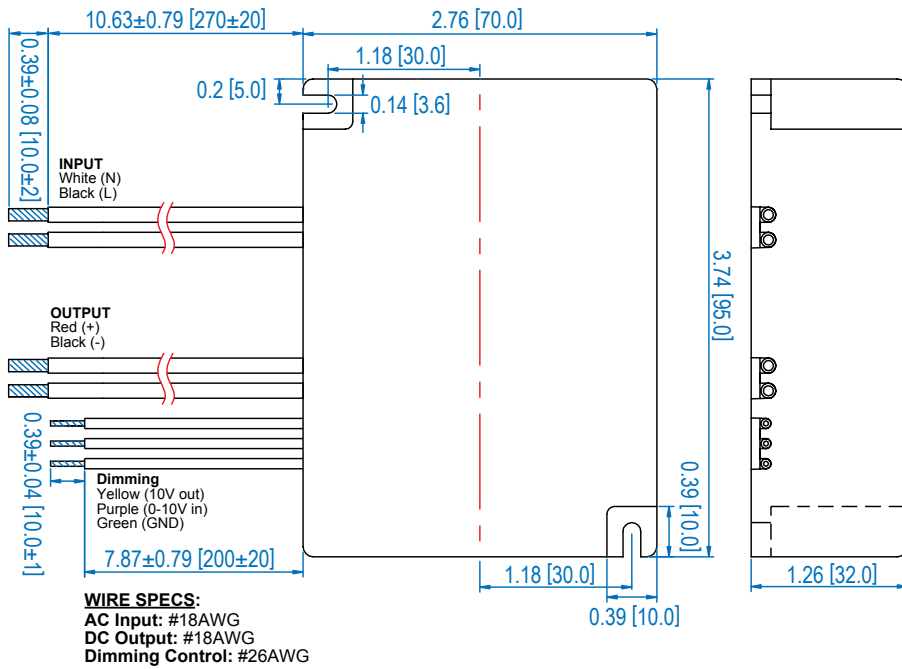
Class 2: US/Canada US Only



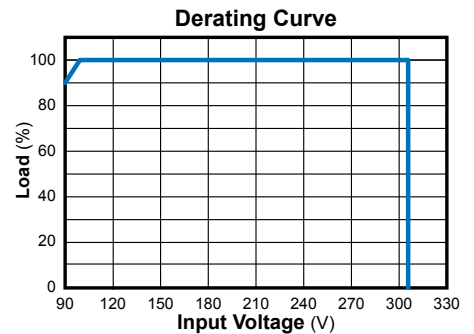
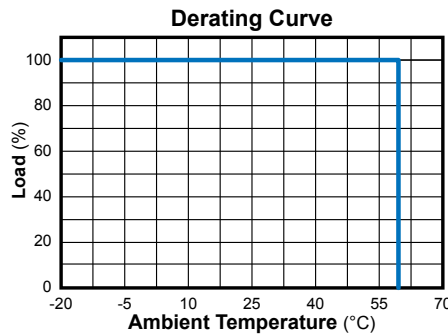
**Note:**  
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

Specifications subject to change without notice.

Rev 8-31-15



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

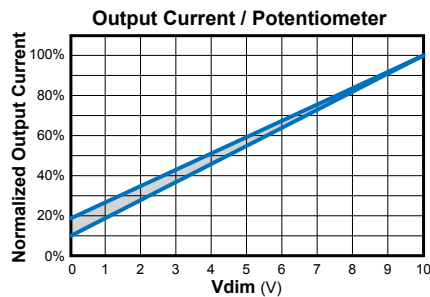
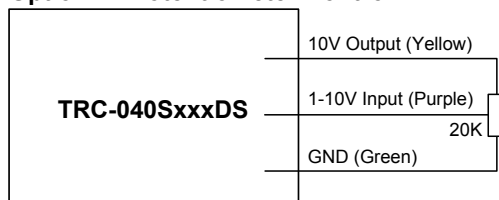


## Dimming Control Details

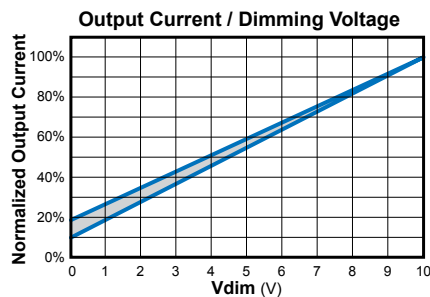
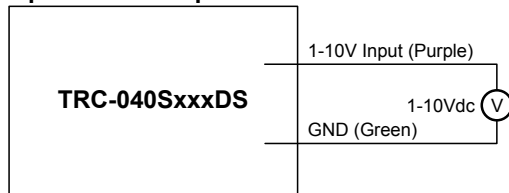
Parameters	Minimum	Typical	Maximum
10V output voltage	9.8 V	10 V	10.2 V
10V output source current	-10 mA	—	2 mA
Absolute maximum voltage on the 0-10V input pin	-2 V	—	15 V
Source current on 0-10V input pin	0 mA	—	1 mA

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.