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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Thomas Research Products

Rev 07-19-2017

LED50WPR2T5 Series

Programmable LED Driver

selectSYNC dynamic

Electrical Specifications

Input Voltage Range:	120-277 Vac Nom. (108-305 V Min/Max)
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor:	≥ 0.90 @ ≥ 60% load, 120Vac-277Vac
Inrush Current:	< 20.0 Amps max @ 277 Vac
Input Current:	0.59 Amps @ 120 Vac, 60Hz 0.25 Amps @ 277 Vac, 60Hz
Maximum Power:	50W
Line Regulation:	± 3%
Load Regulation:	± 4%
THD:	≤ 20% @ ≥ 60% full load
Ripple Current:	4% (max)
Start-up Time:	1 sec. typical

Protections

Over-voltage	Yes
Short Circuit	Auto Recovery

Environmental Specifications

Maximum Case Temp.	80°C
Type TL Rating:	xx°C/ xx°C
Minimum Starting Temp:	-20°C
Storage Temperature:	-25°C to +80 °C
Humidity:	Up to 90% RH
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
Sound Rating:	Class A
Lifetime:	50,000 Hours, 50°C @ Tc point *(see Lifetime graph for lifetimes at different temperatures)*
MTBF:	352,000 hours @ Full Load per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class A compliant

E332160

TYPE TL

- Simple programming with USB cable
- Linear dimming curve
- Adjustable Output Current: 500-1400mA
- UL Dry & Damp Location Rated, Class 2, Type TL
- Dim to 10% with 0-10V dimming
- Metal housing

Constant Current - Product Specifications

Model Number	Output Current *(mA)*	Output Voltage *(Vdc)*	Max Output Power *(W)*	Type TL Rating	Typical Efficiency
LED50WPR2T5-050-C1400-D	500-1400	20-50	50	89/75°C	83%

Class 2: US/Canada

Programming cable is a 1m USB cable with 3-pin connector and programming button. Resistance and current is marked on the label. Other output currents and cables available upon request.

Programming Key

TRP Catalog #	Nominal Output Current (Amps)*	Actual Output Current (Amps)
PR2-C0500-C3	0.500	0.507
PR2-C0530-C3	0.530	0.522
PR2-C0700-C3	0.700	0.691
PR2-C0830-C3	0.830	0.827
PR2-C1000-C3	1.000	1.000
PR2-C1050-C3	1.050	1.043
PR2-C1190-C3	1.190	1.175
PR2-C1250-C3	1.250	1.248
PR2-C1400-C3	1.400	1.404

Safety Certification	Standard
UL/CUL	UL8750, UL60950 for UL Class 2 & CAN/CSA C22.2 No. 250.13, UL Type TL xx/xx°C
CE	EN61347-1, EN61347-2-13
EMC Standard	**Notes**
FCC, 47CFR Part 15	Class B
EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.
EN 61000-3-2	Part 3-2: Limits for harmonic current emissions Class C, ≥80% Rated Power
EN 61000-3-3	Part 3-3: Limitation of voltage changes, voltage fluctuations and flicker.
EN 61000-4-5	Part 4-5: Surge Immunity test, 2 kV L-N, 4 kV L-FG & N-FG
EN 61547	ESD (Electronstatic Discharges); Class B
Energy Star	Energy Star transient protection: Ballast or driver shall comply with ANSI/IEEE C62.41.1-2002 and ANSI/IEEE C62.41.2-2002, Category A operation. 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.

- 2-stage power supply design for better performance over wide range of outputs
- Simple programming with USB dongle
- Built-in step-dimming control
- Linear dimming curve
- NTC option allows for themal protection of LED engine
- Flicker free output for comfort and critical applications
- Adjustable Output Current: 100-1500mA
- UL Dry & Damp Location Rated, Class 2, Type TL
- Dim to zero with DC 0-10V dimming
- Metal housing

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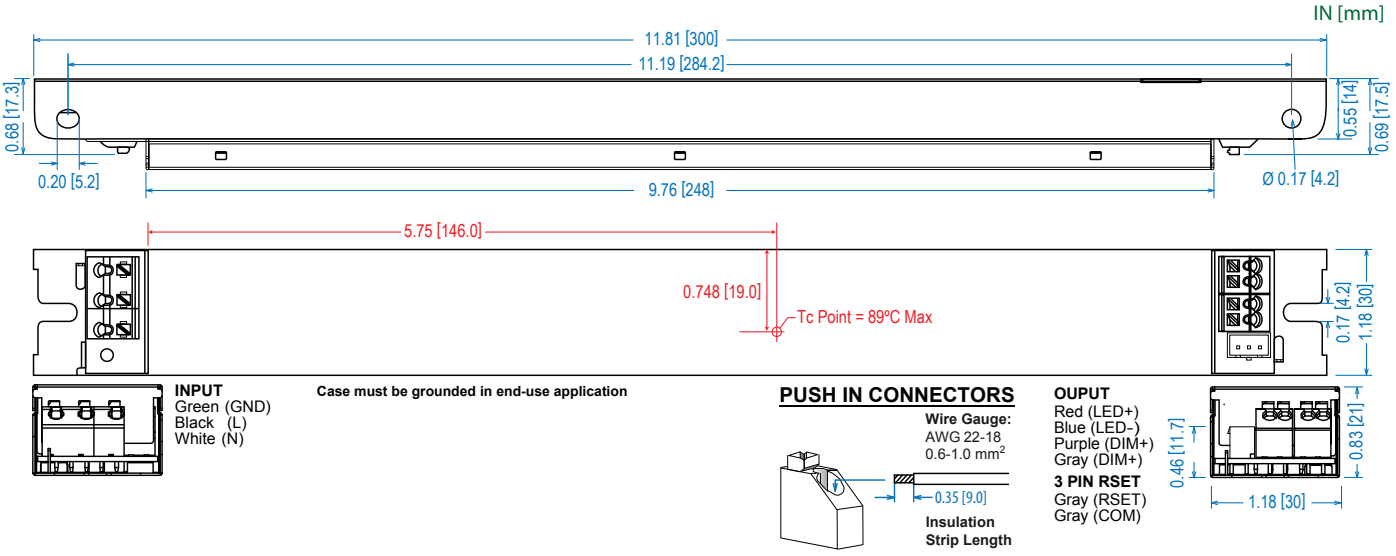
HUBBELL

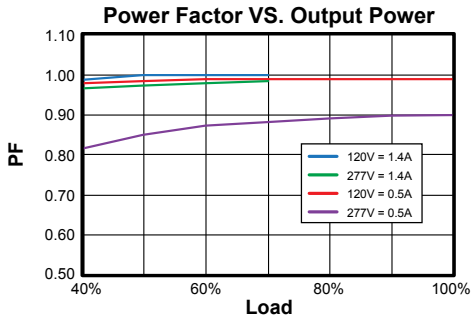
LED50WPR2T5 Series

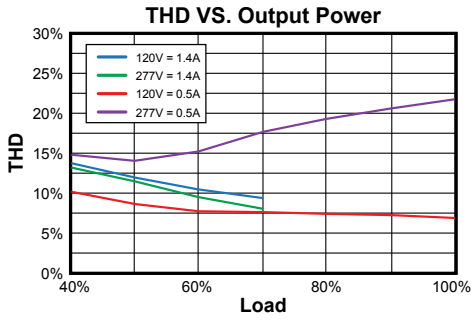
Programmable LED Driver

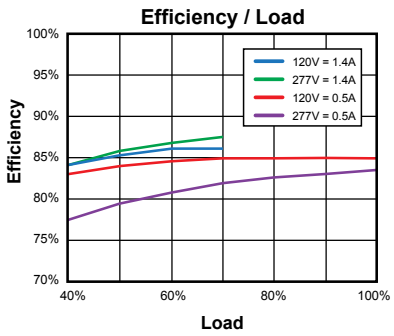
Dimensions

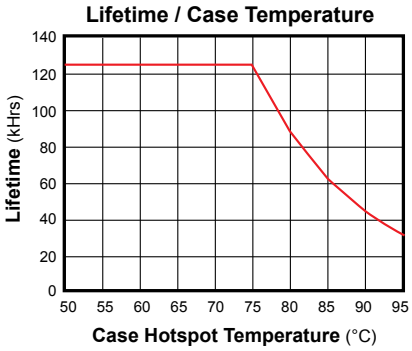


Power Characteristics

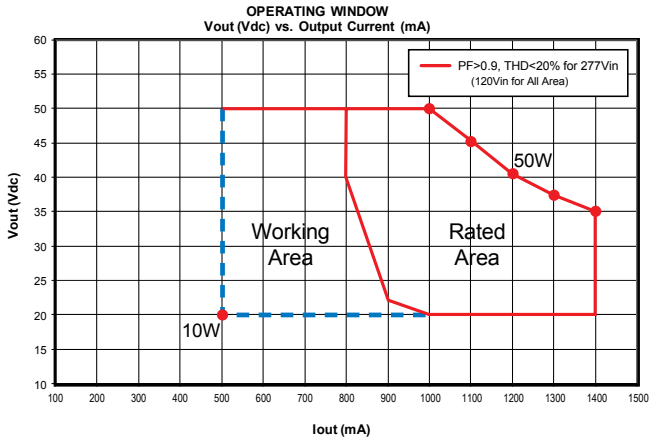








Power Operating Window



Note: *The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances of a failure to function. Other electrical, mechanical and environmental factors affect driver lifetime but are not represented in this calculation.*

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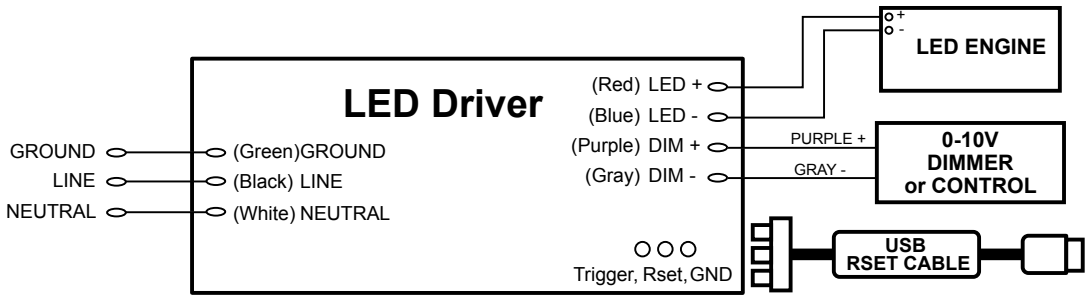
Wiring



Programming Guide

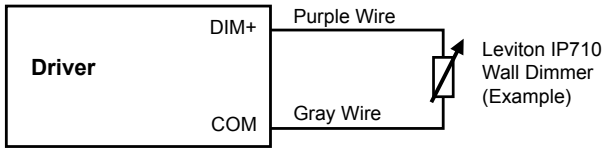
Note that the driver does NOT need to be connected to AC power to be programmed. The cable assembly should have the output current and resistance on the label. Note that each setup cable corresponds to a specific output current value.

1) Plug the 3-pin cable connector into the 3-pin connector on the driver.
2) Plug the USB connector of the cable into an active USB port. The USB port only has to provide +5V to the driver.
3) Push and hold the button on the USB cable for approximately 0.5 to 1 second to program the driver current.
   To keep the programmed value, go to step 5. If the driver needs to be reset to the default current value, go to step 4.
4) Push and hold the button on the USB cable for >6 seconds to reset teh driver current to the default value of 1.4A.
5) Remove the setup cable when done programming. The driver is ready for use.

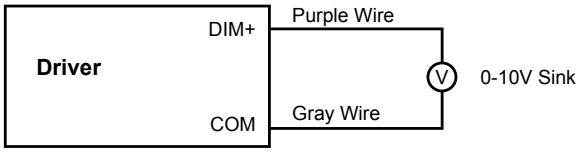
0-10VDC Dimming

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0 mA	—-	1.5 mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0 V	—-	+15 V

Typical Dimming Circuit: 2-Wire Resistance



Typical Dimming Circuit: 2-Wire 0-10V Analog



0-10V Dimming Notes:

1. Part comes with two dimming input connectors +Purple/-Gray on the output side.
2. Part is compatible with most 0-10V Wall Slide dimmers and 0-10V dimming.
3. Output current will be 10% when Vdim ≤0.60V.
4. Output will be 100% with Purple/Gray open and 10% with Purple/Gray Shorted.

Labeling Programmable Drivers:
It is highly recommended that the drivers be labeled with information traceable to the programmed current. ***This information is critical to answering any field questions from the contractor or end user.***

Operating Current Behavior by AD Voltage