



Thomas Research Products

SSL Solutions Faster Than The Speed Of Light®

**LEDDC-25W Series– Fixed Output & Dimmable
Switch Mode LED Drivers
AC or DC Input
Constant Current & Constant Voltage Output with Isolation
Black Magic Thermal Advantage™ Plastic Housing**

Total Power: 25 Watts
Input Voltage: 100-277 Vac Nom. or 108-205 Vdc
Outputs: Single From 24-72 Vdc
Indoor or Outdoor Applications, IP66, NEMA4
High Power Factor
UL8750

Electrical Specifications

Input Voltage Range: 100-277 Vac Nom. (90-305 V Min/Max), 108-250 Vdc
Frequency: 50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor: >0.90 @ full load, 100V through 277V
Inrush Current: <15.0 Amps @ 230 Vac, cold start 25°C, max load
Input Current: 0.25 Amps @ 120 Vac, 60 Hz, max load
Maximum Power: 25W
Current Accuracy: ± 2% Over input line variation
Load Regulation: ± 3%
THD: ≤ 20% @ full load
Leakage Current: 400 µA Typical
Hold Up Time: Half Cycle
Protection: Output Over-Voltage, Output Over-Current, and Output Short Circuit Protection reset by power cycling

Environmental Specifications

Operating Temperature: -30°C to +60°C
Maximum Case Temp. 90°C
Storage Temperature: -40°C to +85°C
Humidity: 5% to 95%
Cooling: Convection
Vibration Frequency: 5 to 55 Hz/2g, 30 minutes
Impact Resistance: 1g/s
Sound Rating: Class A
MTBF: 482,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2
EMC: FCC 47CFR Part 15 Class B compliant
Weight: 198g (7.0 oz)



Constant Current - Product Specifications

Model Number	Output Current (mA ±3%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
LEDDC25W-72-C0350-XX	350	24-72	25	86%

-XX indicates dimming options are available. See options at left. Blank = fixed current output

Constant Voltage - Product Specifications

Model Number	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max. Output Power (W)	Typical Efficiency
LEDDC25W-72	72	88-350	25	86%

Ordering Options:

- D: 0-10V & Resistance dimmable version comes with an extra two wires +Purple/-Gray on the output side. -D 0-10V Dimming is compatible with most quality 0-10V wall dimmers and direct 0-10V analog signal. See page 3 for additional specifications.
- PD: PWM Dimmable version comes with an extra two wires +Purple/-Gray on the output side. PD PWM version is PWM Dimmable via a positive 10% to 100% Duty Cycle, 200Hz to 1KHz, 0-10V Pulse. See page 4 for additional specifications.



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 driver, 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.

5-21-13



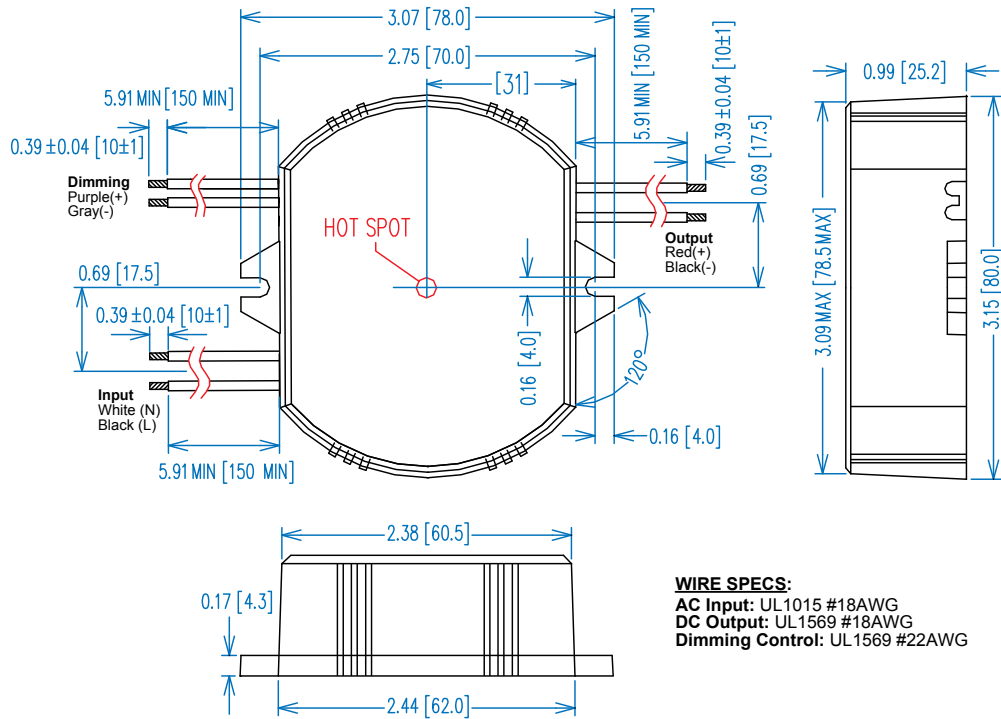
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LEDDC-25W

Pg 2 of 4

Dimensions - Inches (mm)



Safety and EMC Compliance	
UL/CUL	UL8750, CSA 22.2
C E	EN 61347
EN 61000-3-2	
EN 61000-3-3	Class C

UL Conditions of Acceptability

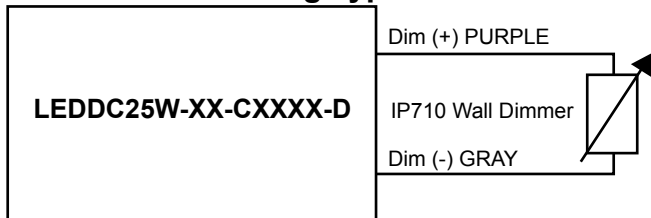
See website for additional information



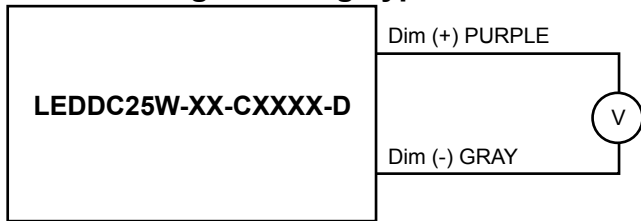
“-D” Option: 0-10VDC and Resistance Dimming

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0mA	—	10mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0V	—	+15V
Sink Current into 0-10V Purple Wire	0mA	—	1.2mA

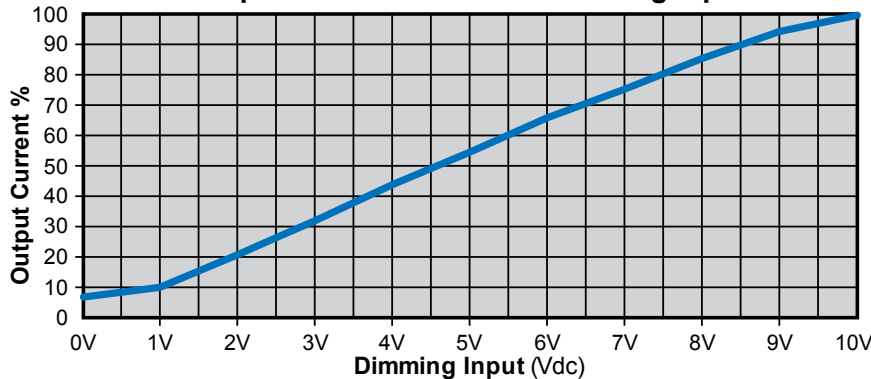
Resistance Dimming Typical Circuit



0-10V Analog Dimming Typical Circuit



Output Current / 0-10VDC Dimming Input



Notes:

1. 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
2. Compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. Recommended dimmer is Leviton IP710 or equivalent
3. 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V
4. 0-10V dimmable version output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.



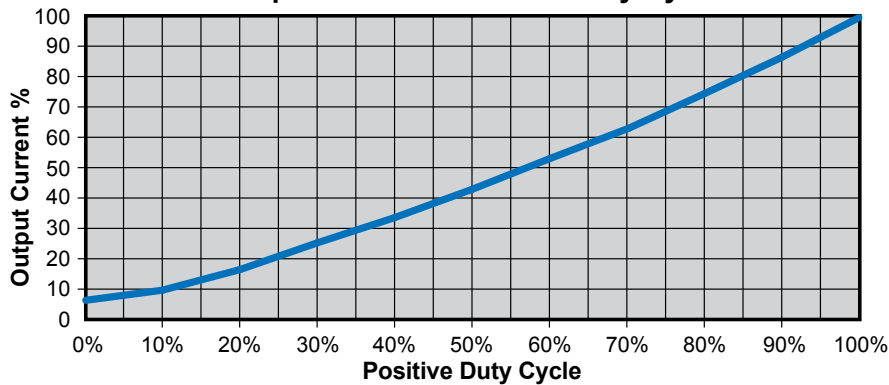
“-PD” Option: 0-10VDC and Resistance Dimming

Parameters	Minimum	Typical	Maximum
Absolute Maximum Voltage Range on PWM Input (Purple Wire)	-2.0V	10V	+28V
Input LOW Level Voltage Range (Purple Wire)	-2.0	0V	+7.5V
Input HIGH Level Voltage Range (Purple Wire)	+9.0	10V	28V
Sink Current into PWM Input (Purple Wire)	0mA	—	1.2mA
PWM Input Signal Frequency	200Hz	—	1000Hz
PWM Input Signal Positive Duty Cycle	0%	10-90%	100%

PWM Positive Dimming Typical Circuit



Output Current / Positive Duty Cycle



Notes:

1. PWM Dimmable version comes with an extra 2 wires +Purple/-Gray on the output side.
2. Below 10% Duty cycle proper dimming operation is not assured. Unit is not intended to turn off at <10% Duty Cycle.
3. PWM dimmable version output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.