

## **LED-25W Series- Fixed Output and Dimmable**

**Switch Mode LED Drivers Constant Current & Constant Voltage with Isolation** Black Magic Thermal Advantage™ Plastic Housing

### **Electrical Specifications**

Input Voltage Range: 100-277 Vac Nom. (90-305 V Min/Max)

Input Over-Voltage: Can endure 320Vac for 48 Hrs, 350Vac for 2 Hrs

50/60 Hz Nom. (47-63 Hz Min/Max) Frequency: Power Factor: >0.90 @ full load, 100V through 277V Inrush Current: <15.0 Amps max @ 230 Vac, cold start 25°C

0.25 Amps max @ 120 Vac Input Current:

Maximum Power:

**Current Accuracy:** ± 1% Over input line variation

Load Regulation:

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 with Auto Recovery** 

## **Environmental Specifications**

Minimum Starting Temp: Maximum Case Temp.

Storage Temperature: -40°C to +85°C **Humidity:** 5% to 95% Cooling: Convection

Vibration Frequency: 5 to 55 Hz/2g, 30 minutes

Sound Rating:

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



· Total Power: 25 Watts

• Input Voltage: 100-277 Vac Nom. • UL Dry & Damp Location Rated

High Power Factor

• UL8750 and Class 2 Compliant, as noted

• UL Sign Components Manual (S.A.M. Models)

Constant Current				
Model Number	Output Current (mA ±3%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
LED25W-72-C0350-XX	350	24-72	25	86%
LED25W-40-C0350-XX	350	13-40	14	84%
LED25W-28-C0350-XX	350	10-28	9.8	83%
LED25W-62-C0400-XX	400	21-62	24.8	85%
LED25W-56-C0450-XX	450	19-56	25	84%
LED25W-40-C0500-XX	500	13-40	20	84%
LED25W-40-C0620-XX	620	13-40	24.8	84%
LED25W-36-C0700-XX	700	12-36	25	84%
LED25W-28-C0850-XX	850	10-28	23.8	83%
LED25W-24-C1040-XX	1040	8-24	25	83%
LED25W-20-C1250-XX	1250	7-20	25	83%
LED25W-18-C1400-XX	1400	6-18	25	82%
LED25W-16-C1560-XX	1560	6-16	25	82%
LED25W-14-C1750-XX	1750	5-14	24.5	82%
LED25W-12-C2080-XX	2080	4-12	25	81%

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

#### **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. See page 3 for additional specifications.

-PD: PWM Dimmable version comes with an extra two wires +Purple/-Gray on the output side. "-PD" version is PWM Dimmable via a positive 10% to 100% Duty Cycle, 200Hz to 1KHz, 0-10V Pulse. See page 4 for additional specifications.



Constant Voltage				
Model Number	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max. Output Power (W)	Typical Efficiency
LED25W-12 •	12	520-2080	25	81%
LED25W-14	14	438-1750	24.5	82%
LED25W-16	16	390-1560	25	82%
LED25W-18	18	360-1400	25	82%
LED25W-20	20	313-1250	25	83%
LED25W-24 •	24	260-1040	25	83%
LED25W-28	28	213-850	23.8	83%
LED25W-36	36	175-700	25	84%
LED25W-40	40	155-620	24.8	84%
LED25W-56	56	113-450	25	84%
LED25W-62	62	100-400	24.8	85%
LED25W-72	72	88-350	25	86%

Indicates S.A.M.

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.

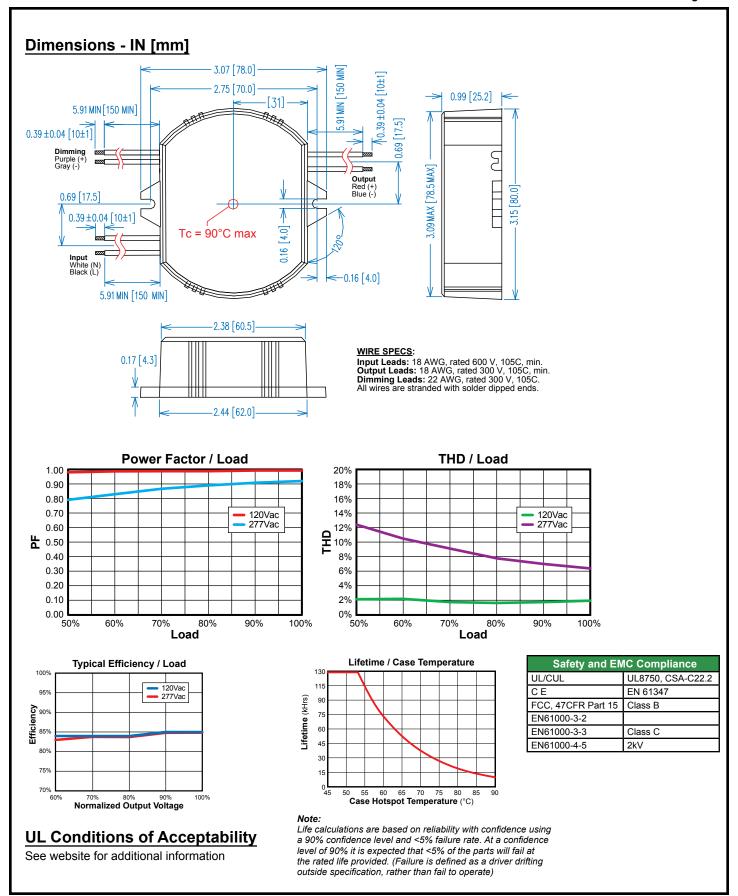
Specifications subject to change without notice.

Class 2: US/Canada US Only

Rev 9-11-15



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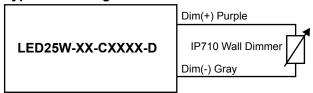




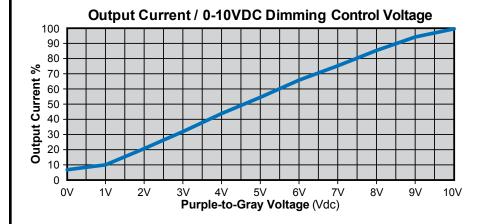
# "-D" Option: 0-10VDC and Resistance Dimming

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0 mA	_	2 mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0 V	_	+15 V

## **Typical Dimming Circuit**



(Dimmer must be current-sink type control)



#### Notes:

- 1. 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
- 2. Compatible with most 0-10V dimmers. 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.

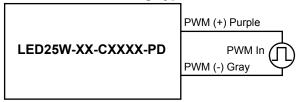




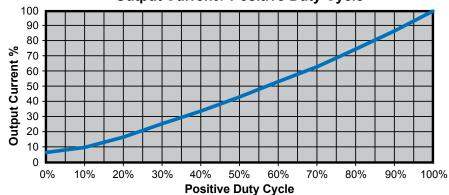
## "-PD" Option: PWM Dimming

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.