

# PLED75W Series

## Flicker-Free LED Drivers



### 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
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor:	>0.90 @ 75-100% load, 100-277Vac
Inrush Current:	50A max @ 277V, 50% I <sub>peak</sub> = 750µsec, cold start 25°C
Input Current:	1.00 Amps max
Maximum Power:	75W
Current Regulation:	± 2% Over input line variation
Load Regulation:	± 3%
THD:	≤ 20% @ 60-100% load, 100-277Vac
Ripple & Noise: (V <sub>pk-pk</sub> )	5% V <sub>o</sub> max @ 20 MHz BW, Full load output in parallel with 0.1 µF ceramic & 10 µF Electrolytic
Ripple: (I <sub>pk-pk</sub> )	5% I <sub>o</sub> max @ 20 MHz BW, Full load output in parallel with 0.1 µF ceramic & 10 µF Electrolytic. 120 Hz component (Flicker Free)
Start-up Time:	200mS typical @ Full Load, 120Vac/60Hz (1000mS max)
Leakage Current:	0.28 mA max @ 120Vac, 0.78 mA max @ 277Vac
Hold Up Time:	40mS typical @ Full Load, 277Vac

### Protections

Over-voltage	Over-Voltage, Over-Current
Short Circuit	Auto Recovery

### Environmental Specifications

Maximum Case Temp.	90°C
Minimum Starting Temp:	-30°C
UL Type TL Rating:	Class 2: 86/63°C; Non-Class 2: 90/81°C
Storage Temperature:	-40°C to +85°C
Humidity:	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
Sound Rating:	Class A
Impact Resistance:	1g/s
MTBF:	474,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant
Weight:	19 oz. (538 g)

Safety Cert.	Standard
UL/CUL	UL8750 & CAN/CSA-22.2 No. 250.13-12, UL1310/CSA-C22.2 No.223-M91 for Class 2, UL1012/CSA-C22.2 No.107.1 for Non-Class 2
CE	EN 61347-1, 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-G & N-G



### Constant Current Models

Model	Output Current (mA ±3%)	Output Voltage Range (V <sub>dc</sub> )	Max. Output Power (W)	Max Efficiency
PLED75W-214-C0350-XX	350	72-214	75	92%
PLED75W-166-C0450-XX	450	56-166	75	92%
PLED75W-108-C0530-XX	530	36-108	57.2	92%
PLED75W-108-C0700-XX	700	36-108	75	92%
PLED75W-072-C1050-XX	1050	24-72	75	91%
PLED75W-054-C1400-XX	1400	18-54	75	91%
PLED75W-048-C1560-XX	1560	16-48	75	90%
PLED75W-042-C1790-XX	1790	14-42	75	89%
PLED75W-036-C2100-XX	2100	12-36	75	89%
PLED75W-027-C2800-XX	2800	9-27	75	88%
PLED75W-024-C3130-XX	3130	8-24	75	88%
PLED75W-020-C3750-XX	3750	7-20	75	87%
PLED75W-015-C5000-XX	5000	5-15	75	86%
PLED75W-012-C6250-XX	6250	4-12	75	86%

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

### Constant Voltage Models

Model	Output Voltage (V <sub>dc</sub> ±5%)	Output Current Range (mA)	Max. Output Power (W)	Max Efficiency
PLED75W-012	12	1563-6250	75	86%
PLED75W-015	15	1250-5000	75	86%
PLED75W-020	20	938-3750	75	87%
PLED75W-024	24	783-3130	75	88%
PLED75W-027	27	700-2800	75	88%
PLED75W-036	36	525-2100	75	89%
PLED75W-042	42	448-1790	75	89%
PLED75W-048	48	390-1560	75	90%
PLED75W-054	54	350-1400	75	91%
PLED75W-072	72	263-1050	75	91%
PLED75W-108	108	175-700	75	92%
PLED75W-166	166	113-450	75	92%
PLED75W-214	214	88-350	75	92%

• Indicates S.A.M.

Class 2: US/Canada

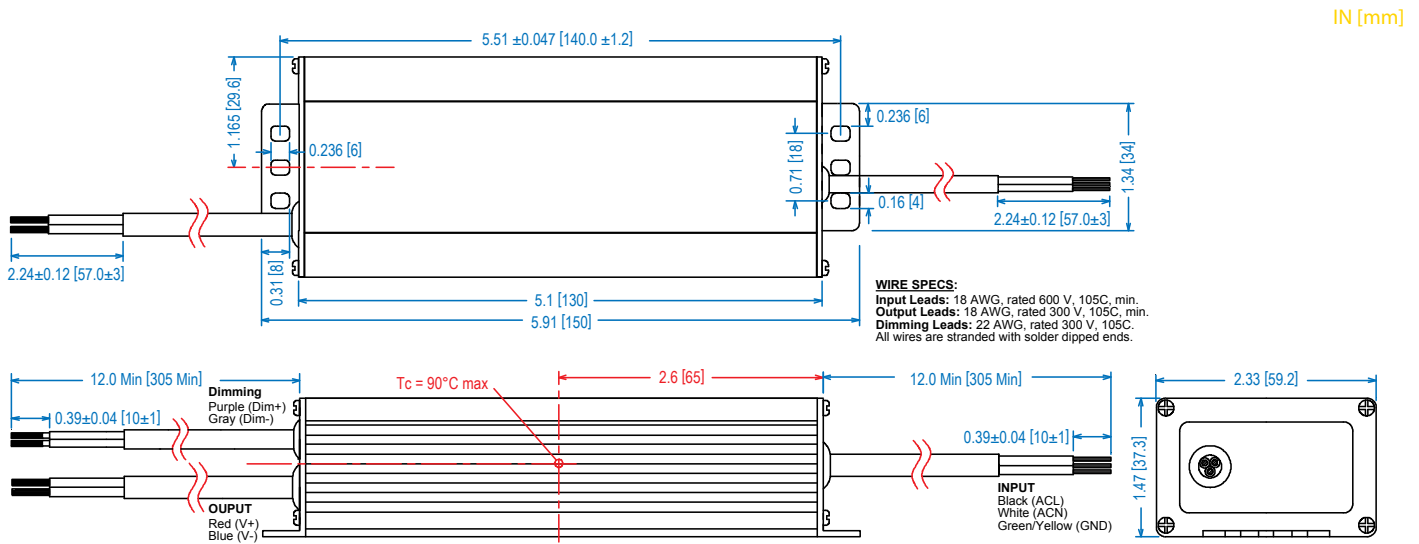
### Ordering Options:

- D: 0-10V & Resistance dimmable models dim 100-10%. Two extra wires on the output side (+Purple/-Gray). Compatible with most quality 0-10V wall dimmers. See page 3.
- D3: 3-wire dimmable models dim 100-10%. Three extra wires on the output side (Yellow/Purple/Gray). Compatible with potentiometer dimming. See page 3.

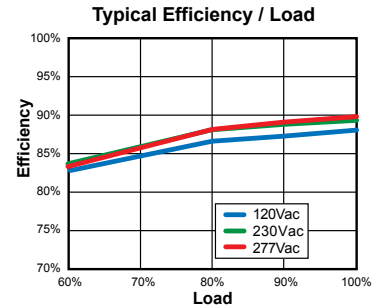
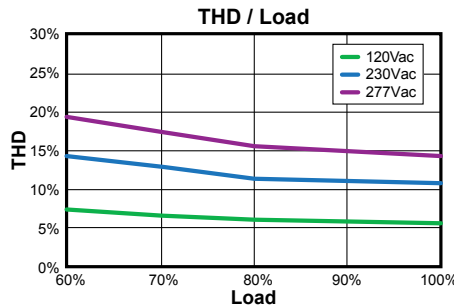
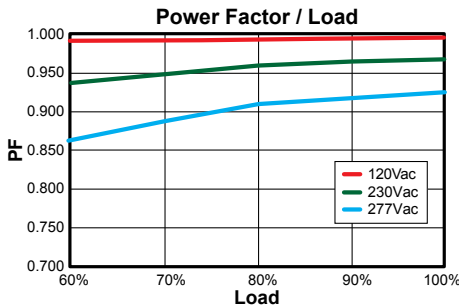
- Smallest Footprint Driver for this wattage
- Total Power: 75 Watts
- Constant Current & Constant Voltage with Isolation
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66 & NEMA6
- UL Type TL
- UL Type HL Rated for Hazardous Locations
- UL Sign Components Manual (S.A.M. Models)
- Black Magic Thermal Advantage™ Aluminum Housing



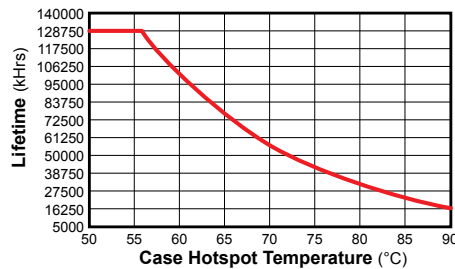
**Dimensions**



**Power Characteristics**



**Lifetime / Case Temperature**  
Full Load @ 120Vac



**UL Conditions of Acceptability**

See website for additional information

**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.

### “-D” and “-D3” Options: 0-10VDC and Resistance Dimming

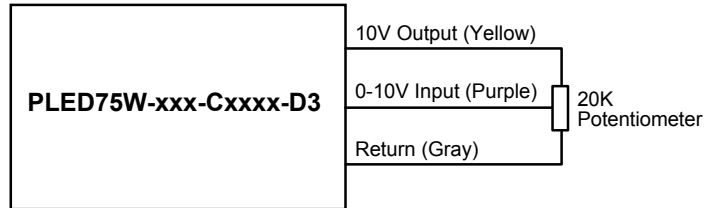
Parameters	Minimum	Typical	Maximum
10V Output, Yellow Wire	9.2V	10.0V	10.8V
Source Current out of Aux Yellow Wire	—	—	10mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0V	—	+15V
Source Current out of 0-10V Purple Wire	0mA	—	2mA

#### Typical Dimming Circuit

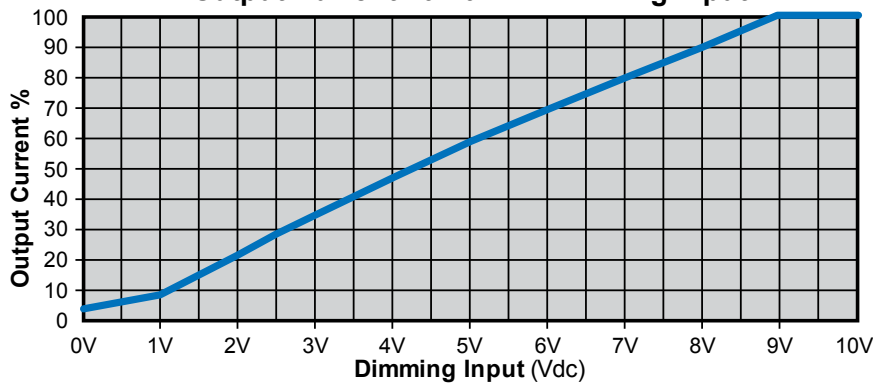


(Dimmer must be current-sink type control)

#### 3-Wire Dimming Typical Circuit



#### Output Current / 0-10VDC Dimming Input



#### Notes:

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