



Thomas Research Products

SSL Solutions Faster Than The Speed Of Light®

PLED-75W Series— Fixed Output & Dimmable Switch Mode LED Drivers Constant Current & Constant Voltage with Isolation Black Magic Thermal Advantage™ Aluminum Housing

Total Power: 75 Watts
Input Voltage: 100-277 Vac Nom.
Outputs: Single from 4-214 Vdc
UL Dry & Damp Location Rated
IP66, NEMA6
High Power Factor

Electrical Specifications

Input Voltage Range:	100-277 Vac Nom. (90-305 V Min/Max)
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor:	>0.90 @ full load, 100V through 277V
Inrush Current:	<30.0 Amps max @ 230 Vac, cold start 25°C
Input Current:	1.00 Amps max
Maximum Power:	75W
Current Regulation:	± 1% Over input line variation
Load Regulation:	± 3%
THD:	≤ 20% @ full load
Leakage Current:	400 µA Typical
Hold Up Time:	Half Cycle
Output Protection:	Over-Voltage, Over-Current, and Short Circuit with auto-recovery

Environmental Specifications

Operating Temperature:	-30°C to +65°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
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)



Constant Current Versions - Product Specifications

Model Number	Output Current (mA ±3%)	Output Voltage Range (Vdc)	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-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 Versions - Product Specifications

Model Number	Output Voltage (Vdc ±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%

Class 2: US/Canada US Only

Ordering Options:

- D: 0-10V & Resistance dimmable version comes with an extra two wires +Purple/-Gray on the output side. 0-10V Dimming is compatible with most quality 0-10V wall dimmers. See page 3 for additional specifications.
- D3: 3-wire dimmable model comes with three extra wires Yellow/Purple/Gray on the output side. 3-wire dimming is compatible with potentiometer dimming.
- 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.

12-05-13



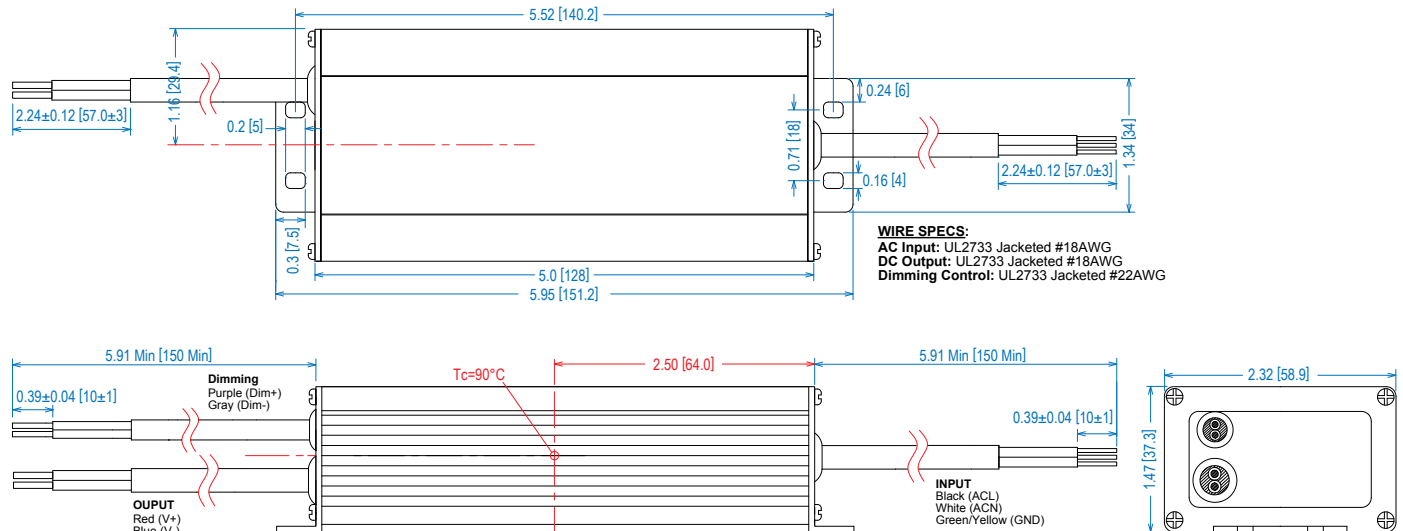
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PLED-75W

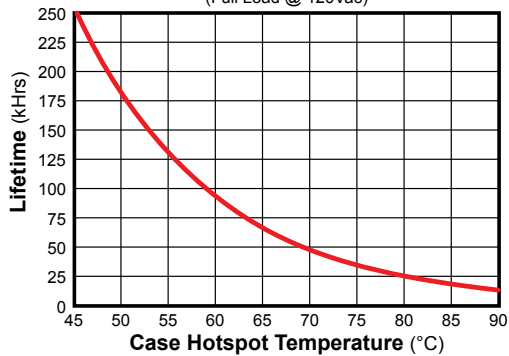
Pg 2 of 4

Dimensions - mm



Lifetime / Case Temperature

(Full Load @ 120Vac)



Safety and EMC Compliance

UL8750
CSA-C22.2
EN61347
EN61000-3-2
EN61000-3-3 Class C
FCC 47CFR Part 15 Class B compliant

UL Conditions of Acceptability

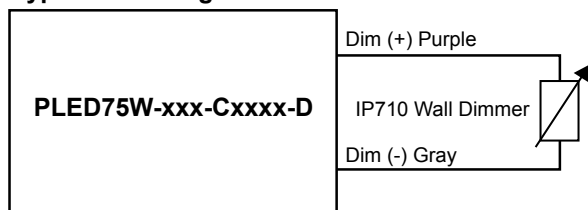
See website for additional information



"-D" and "-D3" Options: 0-10VDC and Resistance Dimming

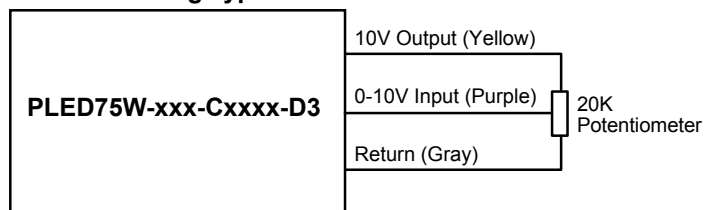
Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0mA	—	2mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0V	—	+15V

Typical Dimming Circuit

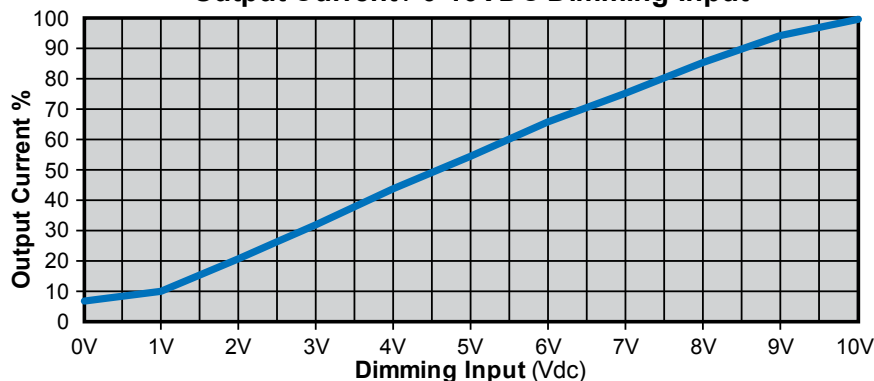


(Dimmer must be current-sink type control)

3-Wire Dimming Typical Circuit



Output Current / 0-10VDC Dimming Input



Notes:

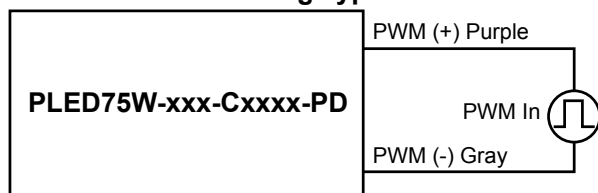
1. 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
2. Compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. Recommended dimmer is Leviton IP710 or equivalent
3. 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V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



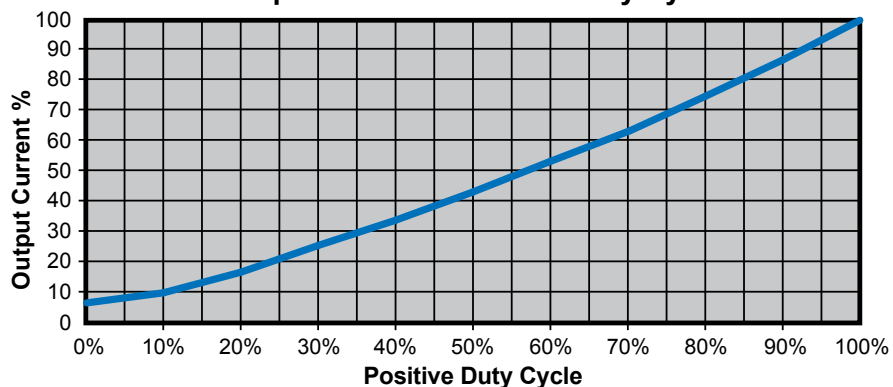
"-PD" Option: PWM Dimming

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.