



Thomas Research Products

SSL Solutions Faster Than The Speed Of Light™

**LED-75W Series– Fixed Output and 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 5 - 257 Vdc
Indoor or Outdoor Applications, IP66
High Power Factor
UL8750, EN61347, CSA 22.2
EN61000-3-2, EN61000-3-3 Class C

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 Accuracy: ± 1% 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 +70°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
MTBF: 478,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2
EMC: FCC 47CFR Part 15 Class B compliant



Constant Current - Product Specifications

Model Number	Output Current (mA ±3%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
LED75W-257-C0300-XX	300	85-257	75	91%
LED75W-200-C0350-XX	350	66-200	75	91%
LED75W-128-C0600-XX	600	42-128	75	91%
LED75W-085-C0900-XX	900	28-85	75	90%
LED75W-064-C1200-XX	1200	21-64	75	90%
LED75W-056-C1400-XX	1400	18-56	75	90%
LED75W-048-C1600-XX	1600	16-48	75	90%
LED75W-036-C2100-XX	2100	12-36	75	89%
LED75W-030-C2500-XX	2500	10-30	75	89%
LED75W-027-C2800-XX	2800	9-27	75	88%
LED75W-025-C3000-XX	3000	8-25	75	88%
LED75W-022-C3400-XX	3400	7-22	75	88%
LED75W-020-C3750-XX	3750	7-20	75	87%
LED75W-018-C4200-XX	4200	6-18	75	86%
LED75W-015-C5000-XX	5000	5-15	75	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
LED75W-257	257	75-300 A	75	91%
LED75W-200	200	88-350	75	91%
LED75W-128	128	150-600	75	91%
LED75W-085	85	225-900	75	90%
LED75W-064	64	300-1200	75	90%
LED75W-056	56	350-1400	75	90%
LED75W-048	48	400-1600	75	90%
LED75W-036	36	525-2100	75	89%
LED75W-030	30	625-2500	75	89%
LED75W-027	27	700-2800	75	88%
LED75W-025	25	750-3000	75	88%
LED75W-022	22	850-3400	75	88%
LED75W-020	20	938-3750	75	87%
LED75W-018	18	1050-4200	75	86%
LED75W-015	15	1250-5000	75	86%

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. -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.



Specifications subject to change without notice.

3-28-13



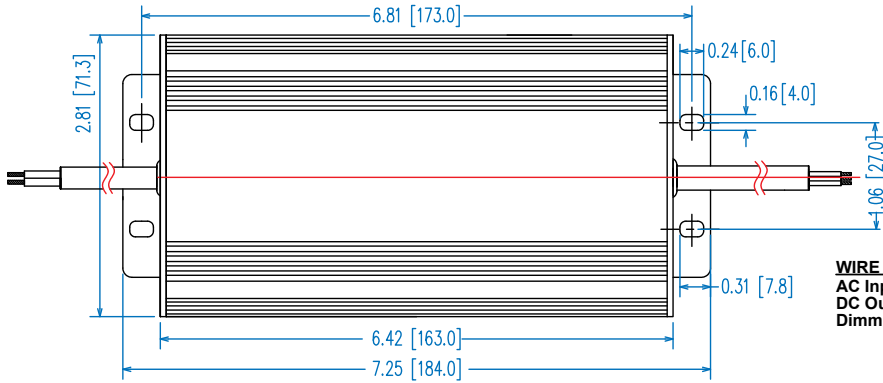
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LED75W

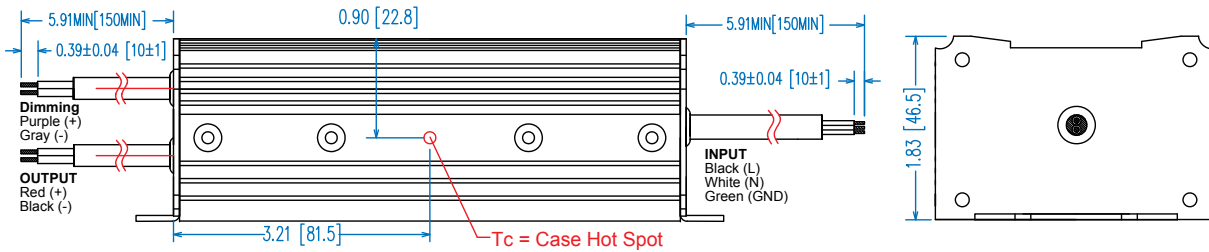
Pg 2 of 4

Dimensions - mm

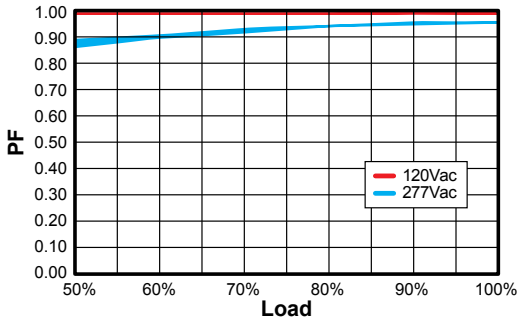


WIRE SPECS:

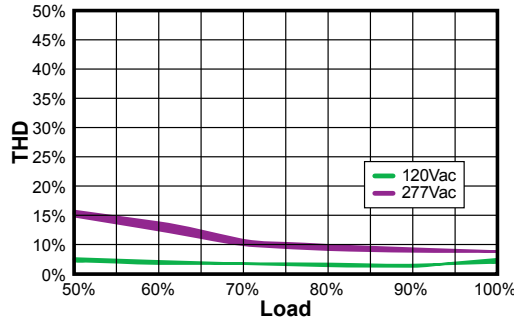
AC Input: UL2733 Jacketed #18AWG
 DC Output: UL2733 Jacketed #18AWG
 Dimming Control: UL2733 Jacketed #22AWG



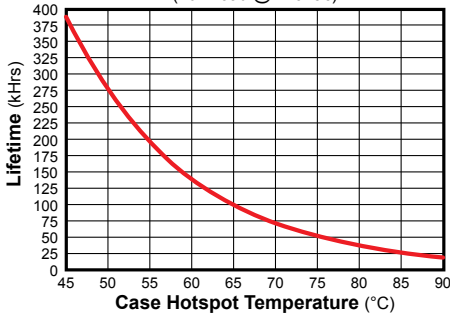
Power Factor / Load



THD / Load



Lifetime / Case Temperature (Full Load @ 120Vac)



UL Conditions of Acceptability

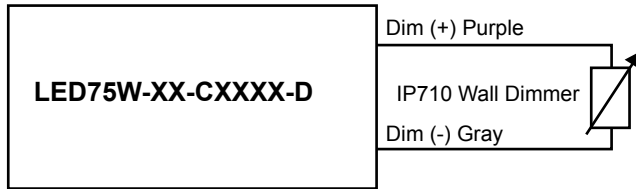
See website for additional information



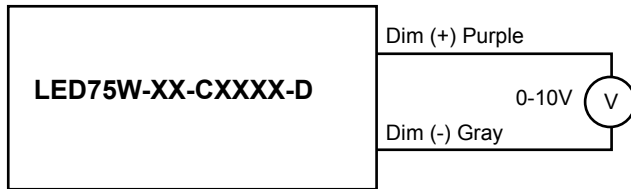
“-D” Option: 0-10VDC and Resistance Dimming

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

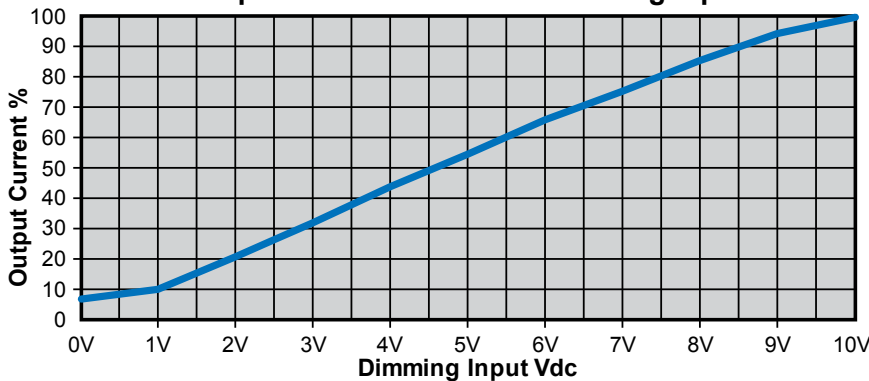
Resistance Dimming Typical Circuit



0-10V Analog Dimming Typical Circuit



Output Current / 0-10VDC Dimming Input



Notes:

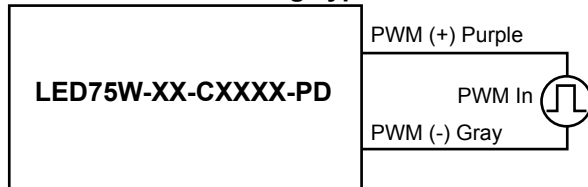
1. 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
2. Compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. Recommended dimmer is Leviton IP710 or equivalent
3. 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V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



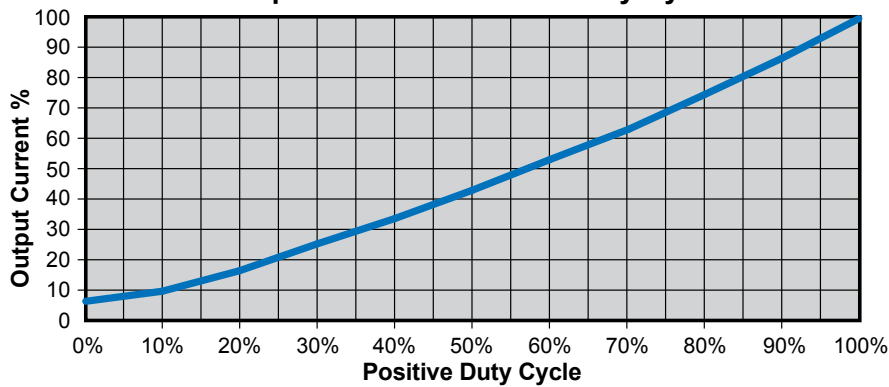
“-PD” Option: PWM Dimming

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.