



# 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. 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.

7-11-13



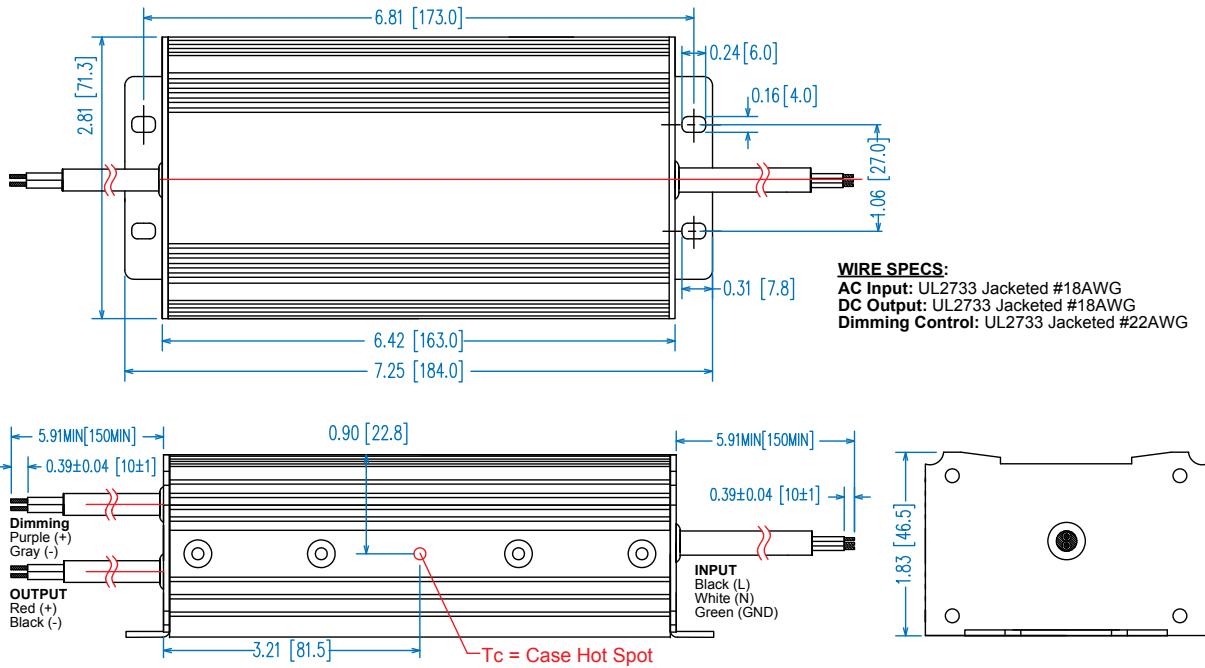
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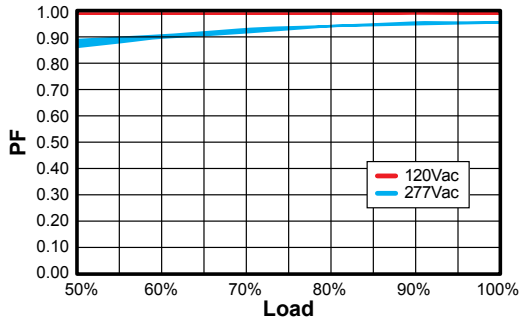
LED75W

Pg 2 of 4

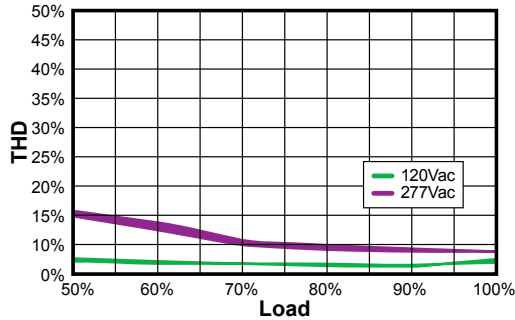
## Dimensions - mm



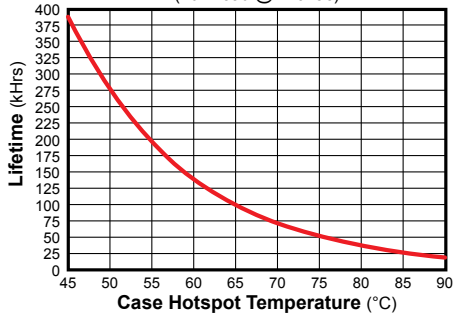
### Power Factor / Load



### THD / Load



### Lifetime / Case Temperature (Full Load @ 120Vac)



## UL Conditions of Acceptability

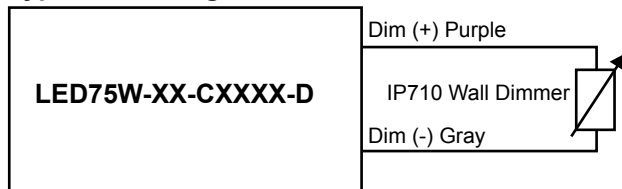
See website for additional information



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

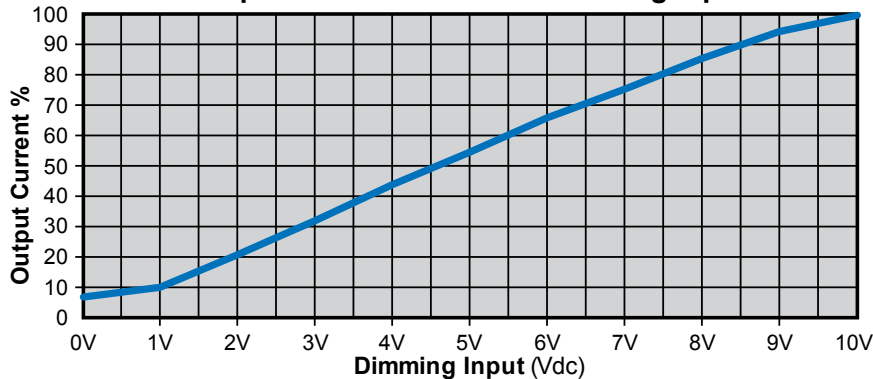
Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0 mA	—	10 mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0 V	—	+15 V

### Typical Dimming Circuit



(Dimmer must be current-sink type control)

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



### Notes:

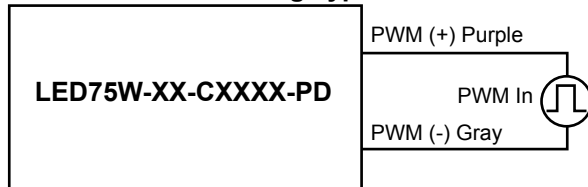
1. 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
2. Compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. Recommended dimmer is Leviton IP710 or equivalent
3. 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V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



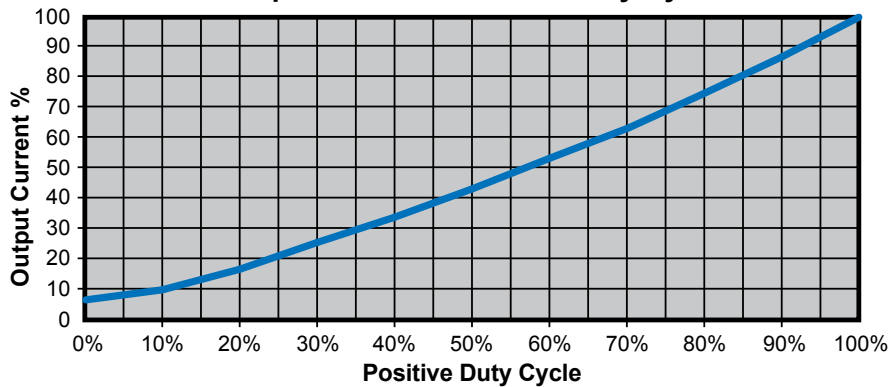
## “-PD” Option: PWM Dimming

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.