# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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#### Rev 9-19-2017

### **PLED-150W 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 @ > 70% load, 120-277V		
Inrush Current:	<60.0 Amps max @ 277Vac, cold start, ful load		
Input Current:	0.75 Amps max @ 230Vac, 1.41 A max @ 120Vac		
Maximum Power:	150W		
Current Accuracy:	± 3%		
Load Regulation:	± 4%		
THD:	≤ 20% @ > 70% load, 120-277V		
Ripple & Noise: (Vpk-pk)	5% Vo max @ 20 MHz BW, Full load output in parallel with 0.1 μF ceramic & 10 μF Electrolytic		
Ripple: (lpk-pk)	5% lo max @ 20 MHz BW, Full load output in parallel with 0.1 μF ceramic & 10 μFElectrolytic. 120 Hz component (Flicker Free)		
Start-up Time:	150mS typical @ Full Load, 120Vac/60Hz (1000mS max)		
Leakage Current:	0.68 mA max @ 120Vac, 0.75 mA max @ 277Vac		
Hold-up Time:	30mS typical @ Full Load, 277Vac		
Protections			

Over-voltage	Output	
Over-current	Output	
Short Circuit	Auto Recovery	

#### **Environmental Specifications**

Max Case Life Temp: (5 year warranty)	75°C
Maximum Case Temp (UL):	90°C
Minimum Starting Temp:	-30°C
UL Type TL Rating:	Non-Class 2: 90/82°C
Storage Temperature:	-40°C to +85°C
Humidity:	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
MTBF:	260,000 Hours at full load and 40°C ambi- ent conditions per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant
Impact Resistance:	1g/s
Weight:	24.4 oz (690 grams)

#### **Dimming Option:**

- "-D" 0-10V & Resistance dimmable models include an extra two wires +Purple/-Gray on the output side. "-D" Compatible with most quality 0-10V wall dimmers. See page 3.
- "-D3" 3-wire dimmable model dims 100% to 10%. Three extra wires included on the output side: Yellow/Purple/Gray. This model is suitable for potentiometer dimming. See page 3.

#### 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 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. © 2017 Thomas Research Products. Specifications subject to change without notice.





#### **Constant Current Models**

Model	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max Output Power (W)	Typical Efficiency
PLED150W-428-C0350-XX	350	142-428	150	92%
PLED150W-333-C0450-XX	450	111-333	150	92%
PLED150W-283-C0530-XX	530	95-283	150	91%
PLED150W-214-C0700-XX	700	72-214	150	91%
PLED150W-142-C1050-XX	1050	48-142	150	91%
PLED150W-107-C1400-XX	1400	36-107	150	91%
PLED150W-085-C1750-XX	1750	29-85	150	90%
PLED150W-071-C2100-XX	2100	24-71	150	90%
PLED150W-061-C2450-XX	2450	21-61	150	90%
PLED150W-053-C2800-XX	2800	18-53	150	90%
PLED150W-048-C3150-XX	3150	16-48	150	89%
PLED150W-042-C3500-XX	3500	14-42	150	89%
PLED150W-035-C4200-XX	4200	12-35	150	89%
PLED150W-030-C4900-XX	4900	10-30	150	88%
PLED150W-024-C6250-XX	6250	8-24	150	88%

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

#### **Constant Voltage Models**

Model	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max Output Power (W)	Typical Efficiency
PLED150W-024 •	24	1563-6250	150	88%
PLED150W-030	30	1225-4900	150	88%
PLED150W-035	35	1050-4200	150	89%
PLED150W-042	42	875-3500	150	89%
PLED150W-048	48	788-3150	150	89%
PLED150W-053	53	700-2800	150	90%
PLED150W-061	61	613-2450	150	90%
PLED150W-071	71	525-2100	150	90%
PLED150W-085	85	438-1750	150	90%
PLED150W-107	107	350-1400	150	91%
PLED150W-142	142	263-1050	150	91%
PLED150W-214	214	175-700	150	91%
PLED150W-283	283	133-530	150	91%
PLED150W-333	333	113-450	150	92%
PLED150W-428	428	88-350	150	92%
			•	Indicates S.A.M

Total Power: 150 Watts

- Constant Current & Constant Voltage with Isolation
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66 & NEMA6
- UL Type HL Rated for Hazardous Locations
- UL Sign Components Manual (S.A.M. Models)
- Black Magic Thermal Advantage<sup>™</sup> Aluminum Housing

HUBBELL

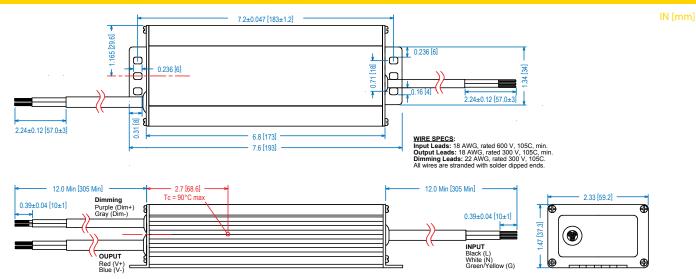


## **PLED-150W Series**

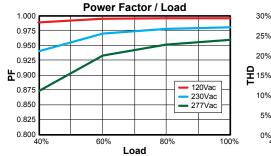


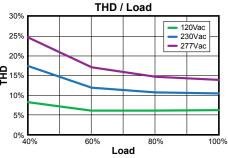


#### **Dimensions**

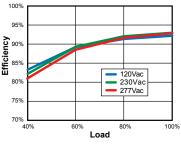


#### **Power Characteristics**

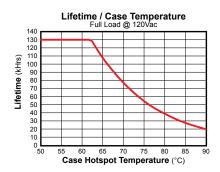


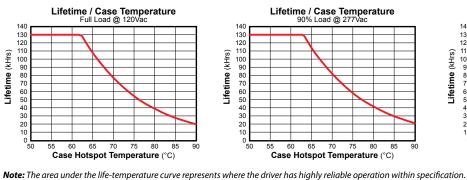


Typical Efficiency / Load



Safety Cert.	Standard
UL/CUL	UL8750 & CAN/CSA-22.2 No. 250.13-12, UL1012/CSA-C22.2 No.107.1
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





Lifetime / Case Temperature 85% Load @ 277Vac 140 130 120 110 100 90 80 70 60 50 40 Lifetime (kHrs) 30 20 10 0 50 30 55 60 65 70 75 80 8 Case Hotspot Temperature (°C) 85 90

#### **UL Conditions of Acceptability**

See website for additional information

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factors affect driver lifetime but are not represented in this calculation.

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





## **PLED-150W Series**

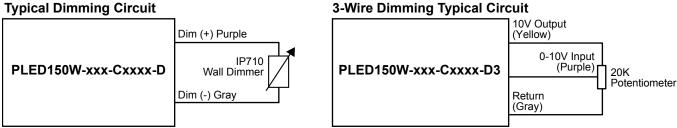


Flicker-Free LED Drivers

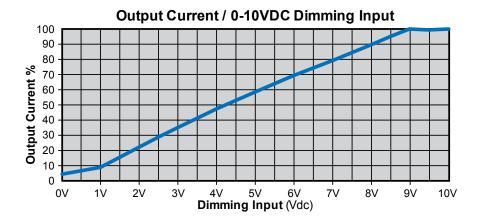
#### "-D" Option: 0-10VDC and Resistance Dimming

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)



#### 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 to zero (off). Will be lout <10% @ Vdim <1.0V
- 4. 0-10V dimmable version output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.