Thomas Research Products

LED75W-T5 Series

Flicker-free LED Drivers

Rev 07-19-2017

selectSYNC classic

E332160

IP20 TYPE TL

Electrical Specifications

Input Voltage Range:	120-277 Vac Nom. (108-305 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 @ >60% load, 120-277Vac
Inrush Current:	<60.0 Amps max @ 277Vac, cold start 25ºC
Input Current (Max):	0.82 Amps @ 120Vac, max load 0.72 Amps @ 277Vac, max load
Maximum Power:	75W
Current Regulation:	± 2% Over input line variation
Load Regulation:	±4%
THD:	≤ 20% @ >50% load, 120-277Vac
Ripple & Noise: (Vpk-pk)	4% Vo max @ 20 MHz BW, Full load output in parallel with 0.1 µF ceramic & 10 µF Electrolytic
Ripple: (Ipk-pk)	5% Io 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:	0.2S typical @ Full Load, 120Vac/60Hz (1S max)
Leakage Current:	700 µA typical

Protections

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

Environmental Specifications

Maximum Case Temp.	90ºC
Minimum Starting Temp:	-20ºC
UL Type TL Rating:	(See product table)
Storage Temperature:	-40ºC to +85ºC
Humidity:	5% to 90%
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
Sound Rating:	Class A
Impact Resistance:	1g/s
Lifetime:	50,000 hrs @ Tc=68ºC (see graph for details)
MTBF:	232,000 Hours at full load and 25ºC ambient conditions per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant
Weight:	14 oz. (400 g)

Ordering Options:

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

- Total Power: 75 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- High Power Factor

Constant Current with Dimming
Aluminum Housing
Narrow cross-section fits T5-style ballast channels

Constant Current Models

Model	Output Current *(mA ±5%)*	Output Voltage Range *(Vdc)*	Max. Output Power *(W)*	Type TL Rating	Max Efficiency
LED75WT5-214-C0350-D	350	107-214	75	90/79ºC	90%
LED75WT5-108-C0700-D	700	54-108	75	90/66ºC	89%
LED75WT5-054-C1400-D	1400	27-54	75	90/69ºC	88%
LED75WT5-038-C2000-D	2000	19-38	76	90/70ºC	87%

Class 2: US/Canada

Safety and EMC Compliance	
UL/CUL	UL8750 & CAN/CSA-22.2 No. 250.13-12, UL1310/CSA-C22.2 No.223-M91, 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
Energy Star	ANS/IEEE C62.41. 1-2002 and ANS/IEEE C62.41. 2-2002

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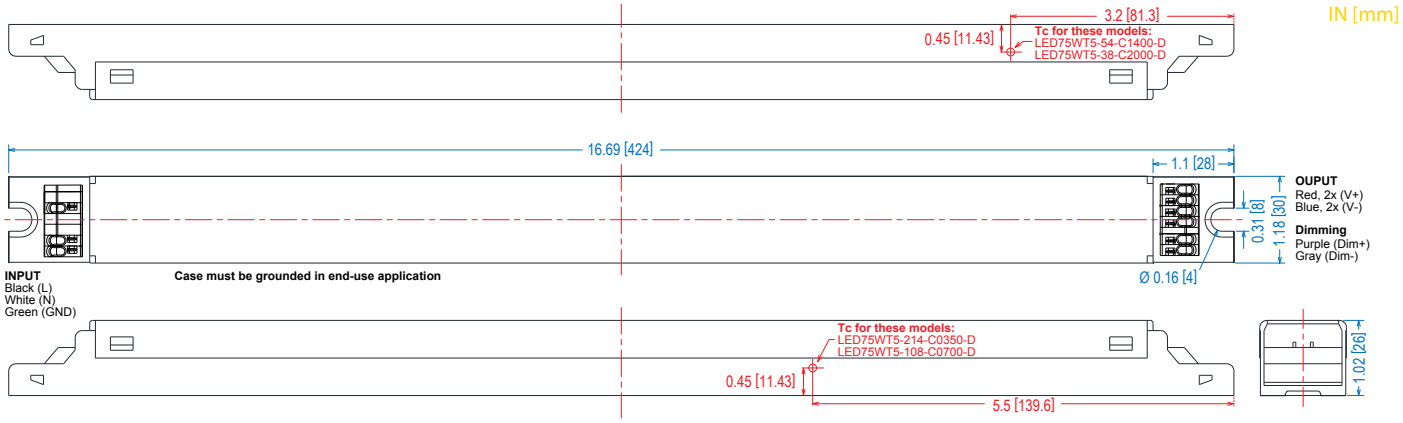
HUBBELL

LED75W-T5 Series

Flicker-free LED Drivers

Dimensions



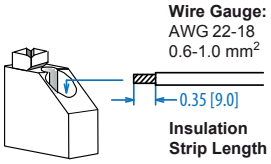
Power Characteristics

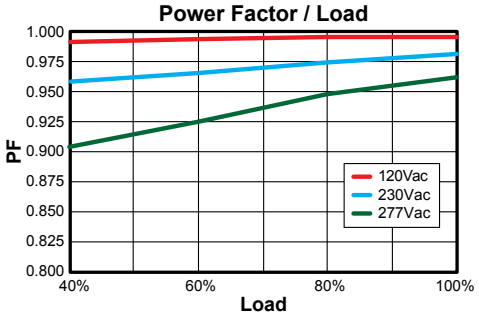
Connectors:

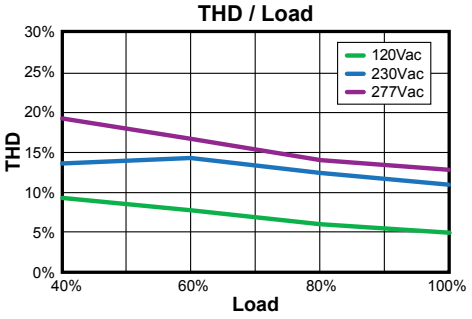
1. UL, KF250-3.5, WAGO 250-402 Push Pin, or equivalent.
2. Strip wire 0.35 inch [9mm].
3. For recommended maximum wiring distances at full load, please refer to this chart:

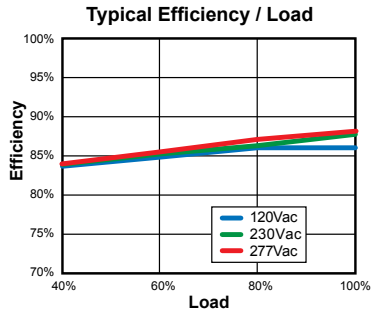
AWG	#20	#19	#18	#17	#16
Distance *ft [m]*	45.9 [14]	59 [18]	72.2 [22]	91.9 [28]	118.1 [36]

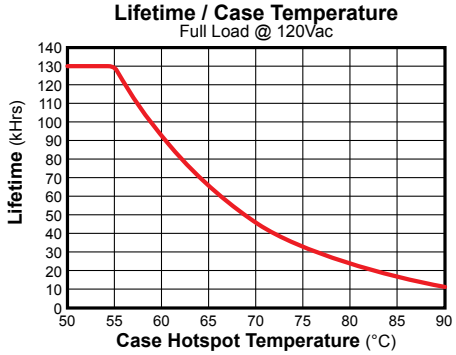
PUSH IN CONNECTORS











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.*

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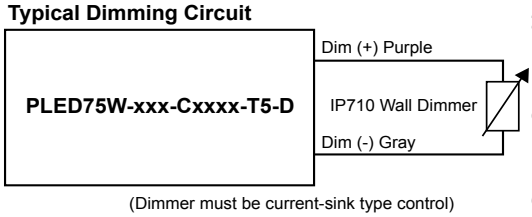
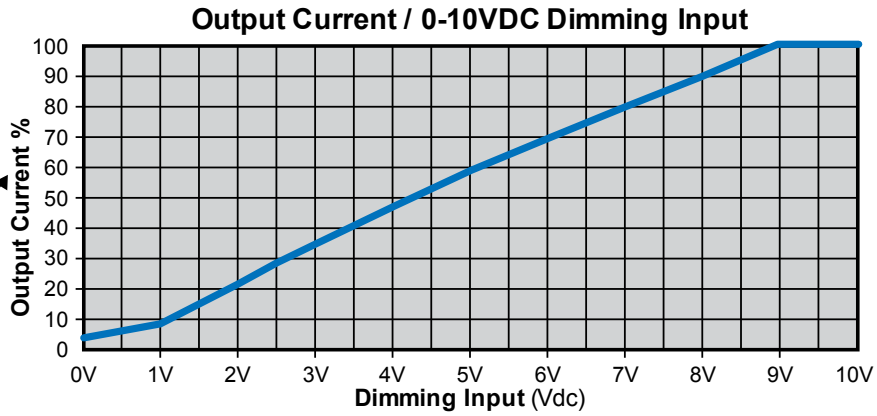
"-D" Option: 0-10VDC and Resistance Dimming

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

Typical Dimming Circuit



(Dimmer must be current-sink type control)



Notes:

1. 0-10V dimmable version comes with an extra two connectors +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 2% @ 0V or 10% @ 1.0V
4. 0-10V dimmable version output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.

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