Thomas Research Products

Rev 8-28-2017

LED75W-T5 Series

Flicker-free Linear LED Drivers

selectSYNC classic

E332160

IP20 TYPE TL

- 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

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	Output
Over-current	Output
Short Circuit	Auto Recovery

Environmental Specifications

Max Case Life Temp: *(5 year warranty)*	68˚C
Maximum Case Temp (UL):	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=68˚C (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)

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	90/79˚C	90%
LED75WT5-108-C0700-D	700	54-108	75	90/66˚C	89%
LED75WT5-054-C1400-D	1400	27-54	75	90/69˚C	88%
LED75WT5-038-C2000-D	2000	19-38	76	90/70˚C	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

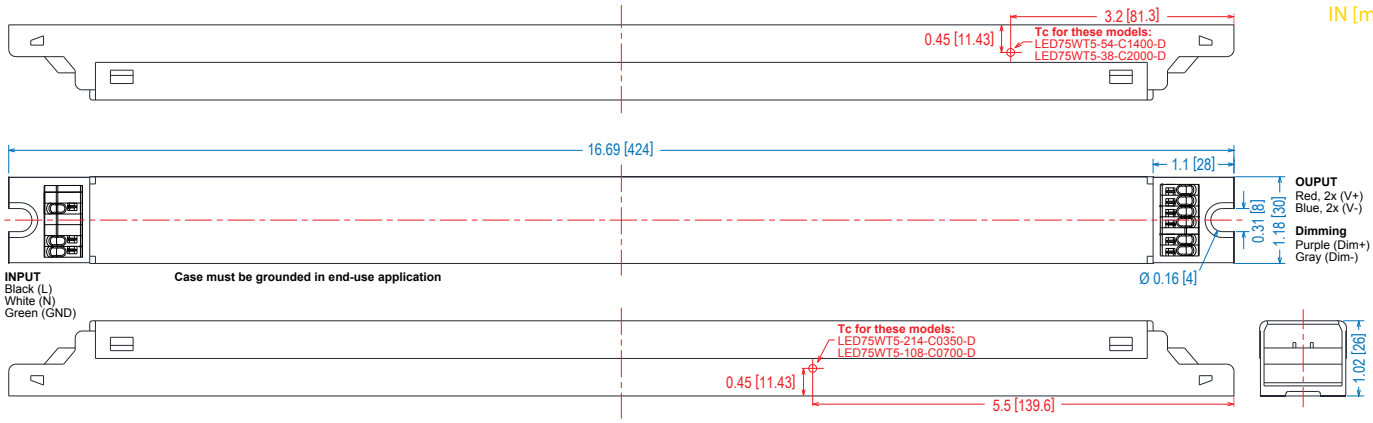
Dimming Information:
0-10V & Resistance dimmable models include an extra two wires +Purple/-Gray on the output side. "-D" Compatible with most quality 0-10V wall dimmers. See page 3 for additional specifications.

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 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.

LED75W-T5 Series

Flicker-free Linear LED Drivers

Dimensions

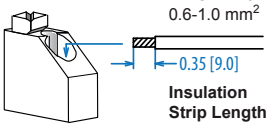


Connectors:

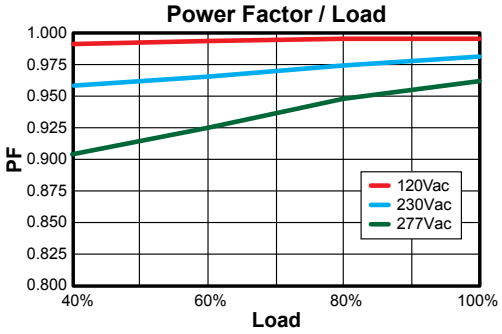
1. UL, KF250-3.5, WAGO 250-402 Push Pin, or equivalent.
2. Strip wire 0.35 inch [9mm].
3. For recommended maximum wiring distances at full load, please refer to this chart:

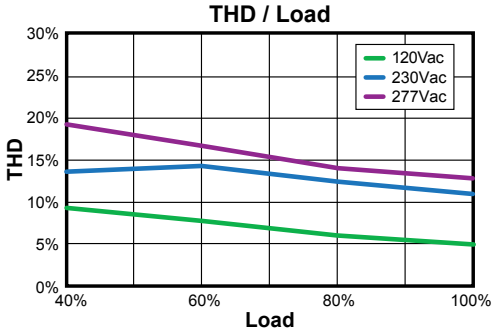
AWG	#20	#19	#18	#17	#16
Distance *ft [m]*	45.9 [14]	59 [18]	72.2 [22]	91.9 [28]	118.1 [36]

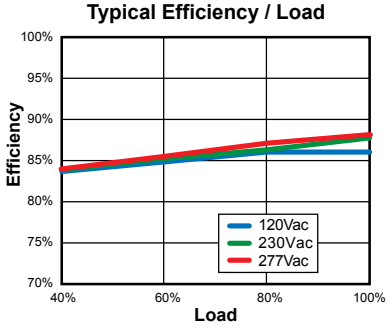
PUSH IN CONNECTORS

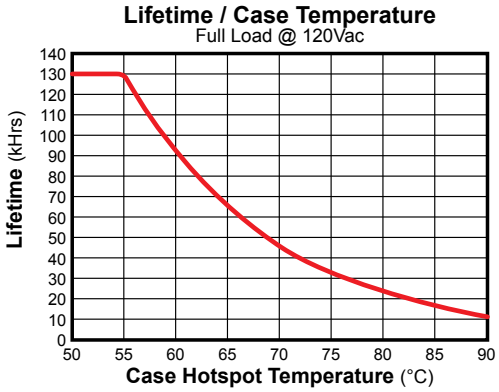


Power Characteristics









UL Conditions of Acceptability

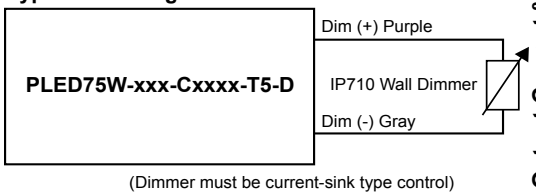
See website for additional information

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.*

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

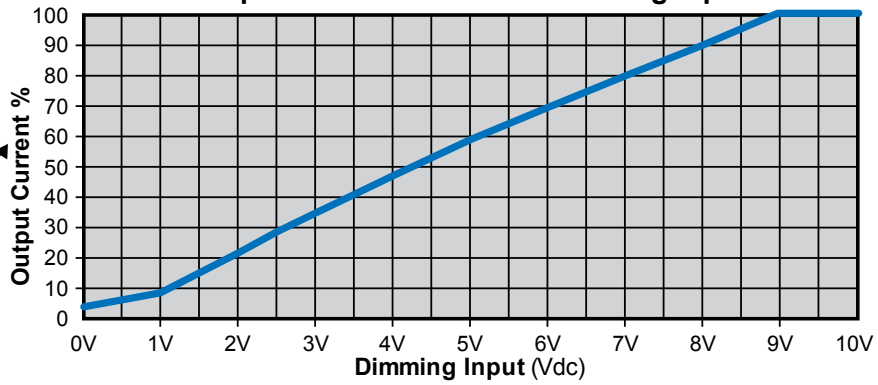
Parameters	Minimum	Typical	Maximum
Absolute Voltage Range on 0-10V (+) Purple	-2.0V	—	+15V
Source Current out of 0-10V Purple	0mA	—	2.0mA

Typical Dimming Circuit



(Dimmer must be current-sink type control)

Output Current / 0-10VDC Dimming Input



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.