



Thomas Research Products

SSL Solutions Faster Than The Speed Of Light®

150W TTC-150 Series Switch Mode LED Drivers Constant Current and Dimming Aluminum Housing

Total Power: 150 Watts
Input Voltage: 347-480 Vac
Single Output: 12-54 Vdc
Indoor or Outdoor Applications, IP67
Ultra High Efficiency
High Power Factor
UL8750

Electrical Specifications

Input Voltage Range: 347 - 480 Nom. Vac (312 - 528 V Min/Max)
Frequency: 50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor: >0.90 @ full load, 347V through 480V
Input Current: 0.7 A @ 347Vac full load, 0.42 A @ 480Vac full load
Inrush Current: 15 A @ 480Vac
Maximum Power: 150W
Line Regulation: ± 1%
Load Regulation: ± 3%
THD: ≤ 20% @ 75-100% load
Leakage Current: 1 mA max @ 480Vac
Typical Efficiency: 91-94% @ full load
Turn-on Delay: 1S
Protection: Over-Voltage, Over-Temperature (105°C), and Short Circuit Protection with Auto Recovery

Environmental Specifications

Operating Temperature: -40°C to +70°C Ambient
Storage Temperature: -40°C to +85°C
Humidity: 10% to 100%
Cooling: Convection
MTBF: 250,000 Hours @ 480Vac, 80% load, 25°C, per MIL-HDBK-217F
Lifetime: 87,600 Hours @ 480Vac, 80% load and Tc = 60°C
Weight: 2.87 lbs. (1.3 kg)



Constant Current Versions - Product Specifications

Model Number	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max Output Power (W)	Typical Efficiency
TTC-150S058ST	580	129-258	150	91%
TTC-150S070ST	700	107-214	150	91%
TTC-150S105ST	1050	71-142	150	90%
TTC-150S140ST	1400	53-107	150	90%
TTC-150S210ST	2100	35-71	150	90%
TTC-150S280ST	2800	27-54	150	90%
TTC-150S350ST	3500	21-43	150	89%
TTC-150S420ST	4200	18-36	150	89%

Dimming Versions - Product Specifications

Model Number	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max Output Power (W)	Typical Efficiency
TTC-150S058DT	580	129-258	150	91%
TTC-150S070DT	700	107-214	150	91%
TTC-150S105DT	1050	71-142	150	90%
TTC-150S140DT	1400	53-107	150	90%
TTC-150S210DT	2100	35-71	150	90%
TTC-150S280DT	2800	27-54	150	90%
TTC-150S350DT	3500	21-43	150	89%
TTC-150S420DT	4200	18-36	150	89%



Specifications subject to change without notice.

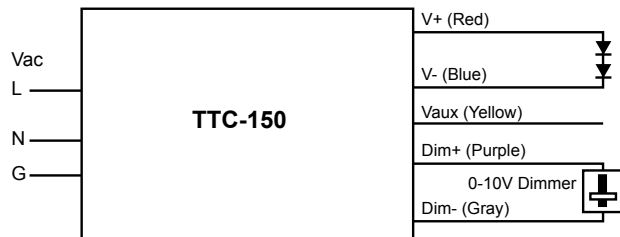
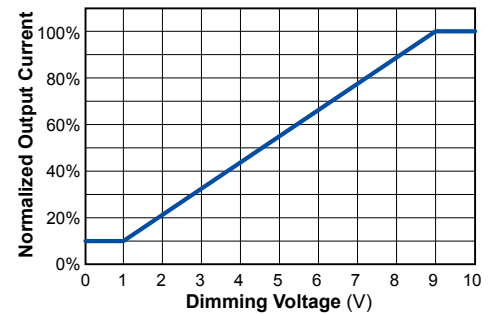
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Dimming Control

On secondary side

Parameters	Minimum	Typical	Maximum
12V output voltage	10.8V	12V	13.2V
12V output source current	0 mA	—	20mA
Absolute maximum voltage on the 1-10V input pin	0V	—	15V
Source current on 1-10V input pin	0μA	—	200μA

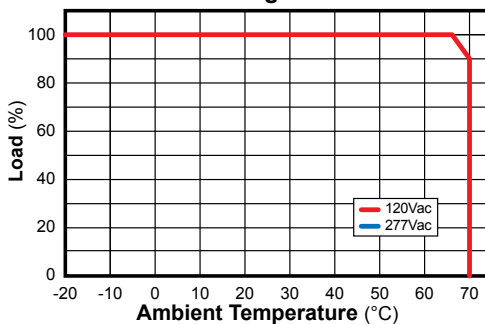
Output Current / Dimming Voltage



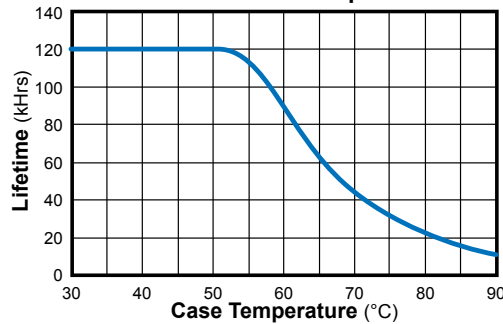
Notes:

1. I_o is actual output current and I_r is rated current without dimming control.
2. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 50% of the max. output voltage for any given model).
3. If the output voltage is maintained above 50% of the maximum output voltage, the dimming control may be operated over the entire 1-10V range with output current varying from 10% to 100% of I_r .
4. The dimming signal may be less than 1V; however, no further dimming will occur between 0V and 1V.
5. Do not connect the GRAY of dimming to the output; otherwise, the LED driver can not work normally.

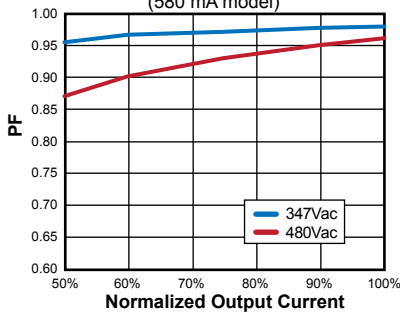
Derating Curve



Lifetime / Case Temperature



Power Factor / Output Voltage (580 mA model)



Efficiency / Load (580 mA model)

