



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.

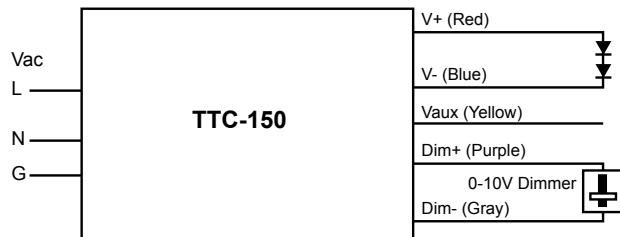
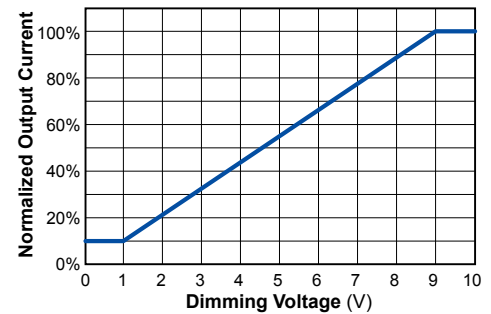
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Dimming Control

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

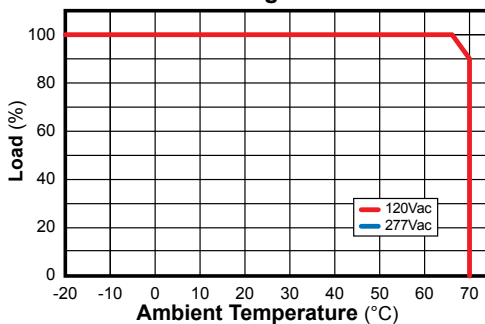
Output Current / Dimming Voltage



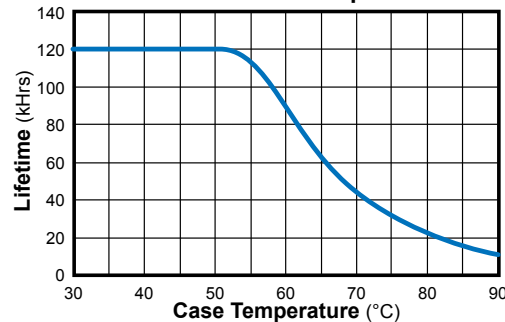
Notes:

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.

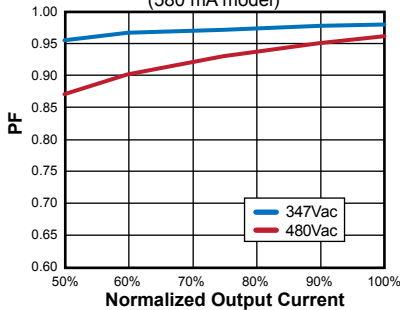
Derating Curve



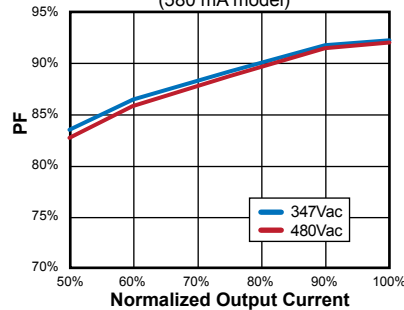
Lifetime / Case Temperature



Power Factor / Output Voltage (580 mA model)



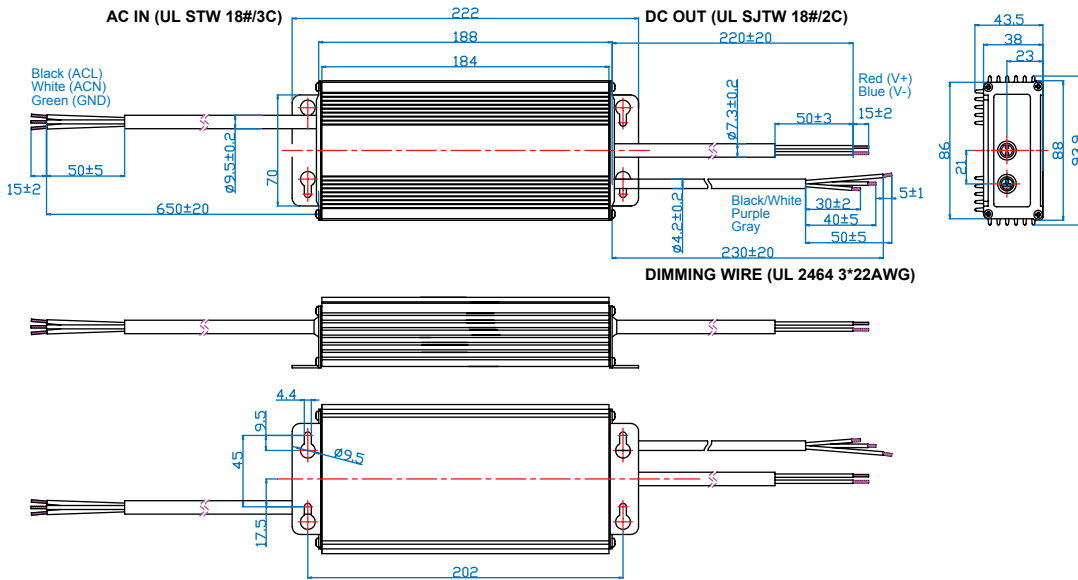
Efficiency / Load (580 mA model)



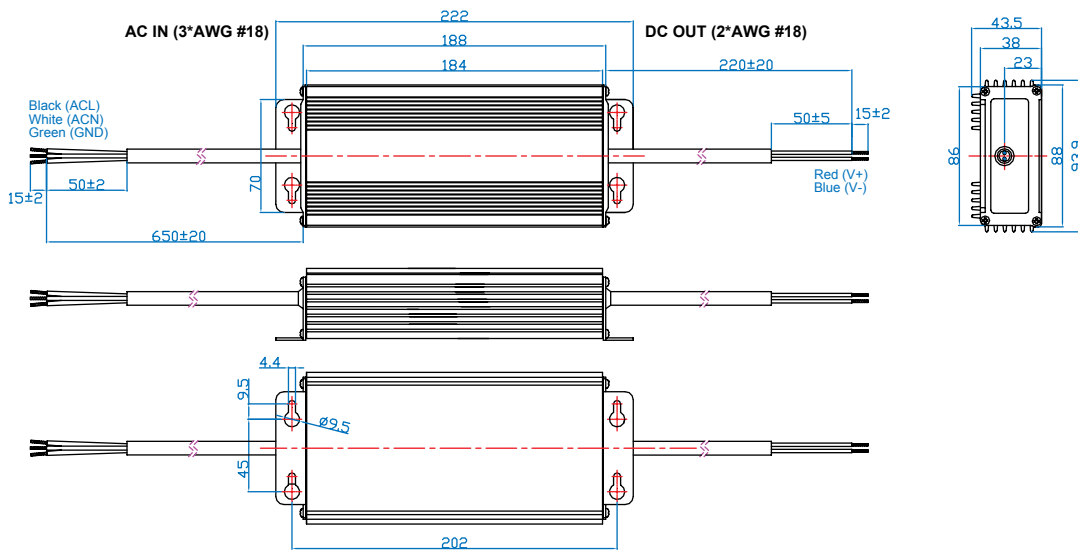


Dimensions - mm

TTC-150 Dimming



TTC-150



Safety Category	Standard
UL/CUL	UL8750, Compliance to UL1012, CAN/CSA-C22.2 No. 223-M91, CSA-C22.2 No. 107.1-01
EMI Standards	Notes
FCC Part 15	ANSI C63.4:2009 Class B

Note:
 Disconnect power to LED driver for at least 30 seconds before connecting or disconnecting Driver output and LED Engine. This prevents potential arcing transients that can damage the Engine and Driver. See Hot Plugging in our Driver Application Guide for more information.