



LED-50W Series

Fixed Output and Dimmable Switch Mode LED Drivers

Rev 3-1-2018



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 @ full load, 100V through 277V
Inrush Current:	<20.0 Amps max @ 230 Vac, cold start 25°C
Input Current:	0.50 Amps max
Maximum Power:	50W
Current Accuracy:	±1% Over input line variation
Load Regulation:	±3%
THD:	≤ 20% @ Full Load
Leakage Current:	400 µA Typical
Hold Up Time:	Half Cycle

Protections

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

Environmental Specifications

Max Case Life Temp: (5 year warranty)	65°C
Maximum Case Temp (UL):	90°C (3330mA and 15V, 88°C) (4200mA and 12V, 78°C)
Minimum Starting Temp:	-30°C
Storage Temperature:	-40°C to +85°C
Humidity:	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
Sound Rating:	Class A
Impact Resistance:	1g/s
MTBF:	474,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant



Constant Current Models

Model	Output Current (mA ±3%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
LED50W-142-C0350-XX	350	47-142	49.7	89%
LED50W-111-C0450-XX	450	37-111	49.9	89%
LED50W-072-C0530-XX	530	24-72	38.1	88%
LED50W-072-C0700-XX	700	24-72	50	88%
LED50W-060-C0830-XX	830	20-60	49.8	88%
LED50W-048-C1050-XX	1050	16-48	50	88%
LED50W-042-C1190-XX	1190	14-42	50	87%
LED50W-040-C1250-XX	1250	13-40	50	87%
LED50W-036-C1400-XX	1400	12-36	50	87%
LED50W-029-C1750-XX	1750	9-29	50	87%
LED50W-024-C2100-XX	2100	8-24	50	87%
LED50W-020-C2500-XX	2500	7-20	50	87%
LED50W-018-C2800-XX	2800	6-18	50	86%
LED50W-015-C3330-XX	3330	5-15	49.9	85%
LED50W-012-C4200-XX	4200	4-12	50	84%

-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
LED50W-012	12	1050-4200	50	84%
LED50W-015	15	833-3330	49.9	85%
LED50W-018	18	700-2800	50	86%
LED50W-020	20	625-2500	50	87%
LED50W-024	24	525-2100	50	87%
LED50W-029	29	438-1750	50	87%
LED50W-036	36	350-1400	50	87%
LED50W-040	40	313-1250	50	87%
LED50W-042	42	298-1190	50	87%
LED50W-048	48	263-1050	50	88%
LED50W-060	60	208-830	49.8	88%
LED50W-072	72	175-700	50	88%
LED50W-111	111	113-450	49.9	89%
LED50W-142	142	88-350	49.7	89%

• Indicates S.A.M.

Class 2: US/Canada

- Total Power: 50 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66
- High Power Factor
- Constant Current & Constant Voltage with Isolation
- Black Magic Thermal Advantage™ Plastic Housing
- UL8750
- UL Sign Components Manual (S.A.M. Models)

Dimming Option:

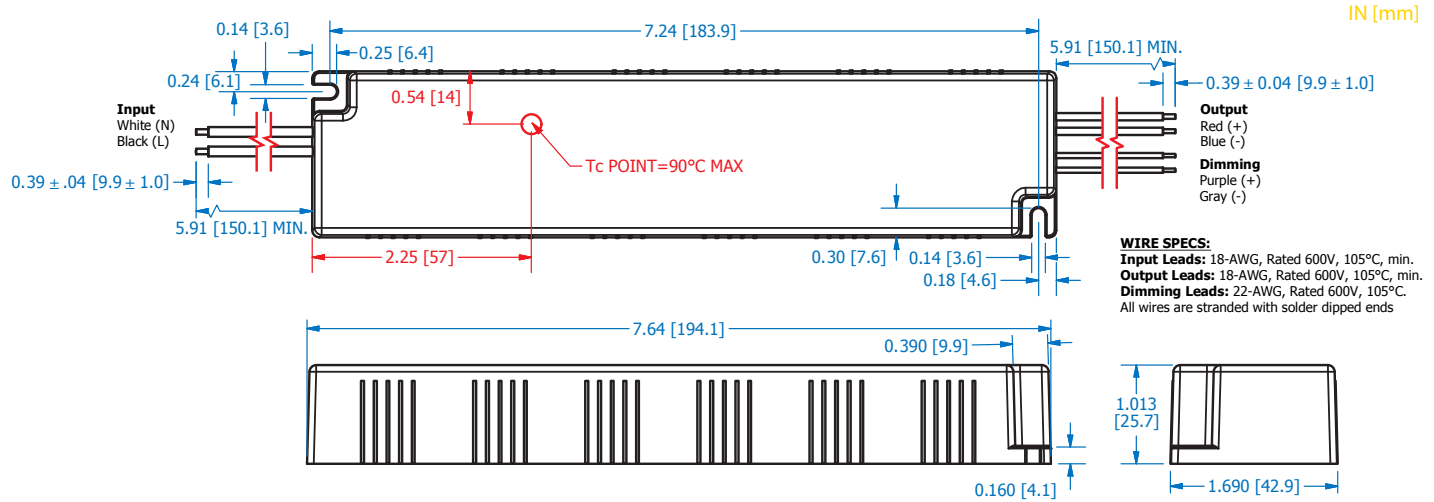
0-10V & Resistance dimmable models include an extra two wires +Purple/-Gray on the output side. "D" Compatible with most quality 0-10V wall dimmers. See page 3 for additional specifications.

Note:

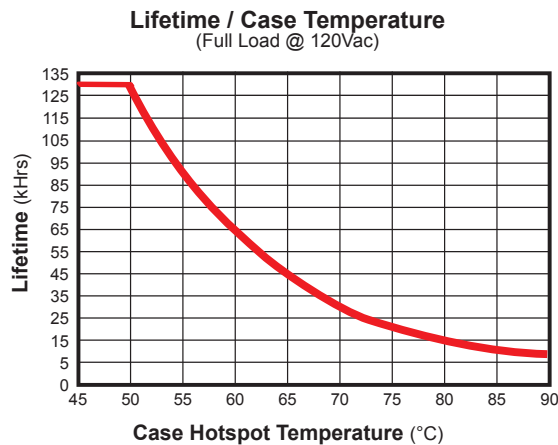
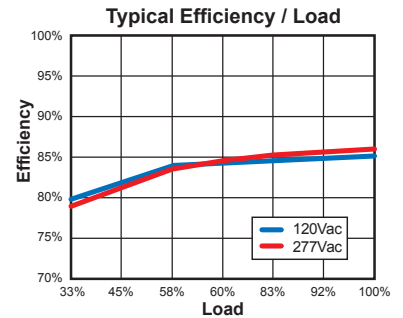
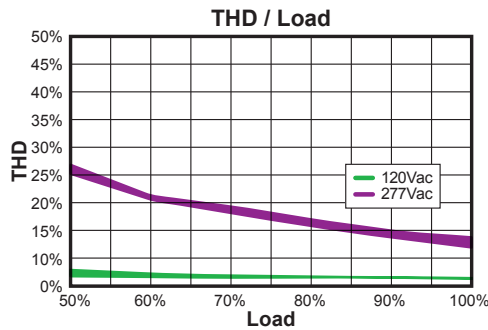
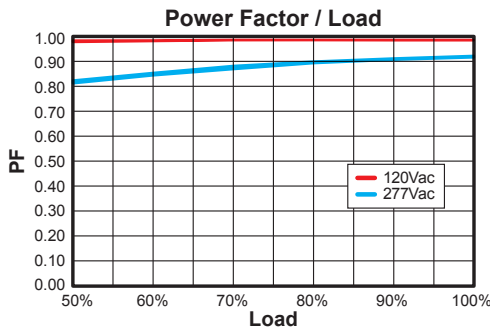
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.



Dimensions



Power Characteristics



*(Max Temperature of 63.3°C at 50k Hours)

Safety Cert.	Standard
UL/CUL	UL8750
CSA	22.2
CE	EN61347
EMC Standard	Notes
EN55015	
EN61000-3-2	> 80% Rated Power
EN61000-3-3	Class C
FCC, 47CFR Part 15	Class B
EN6100-4-5	2KV L-N, 8/20 μsec Surge Protection

UL Conditions of Acceptability

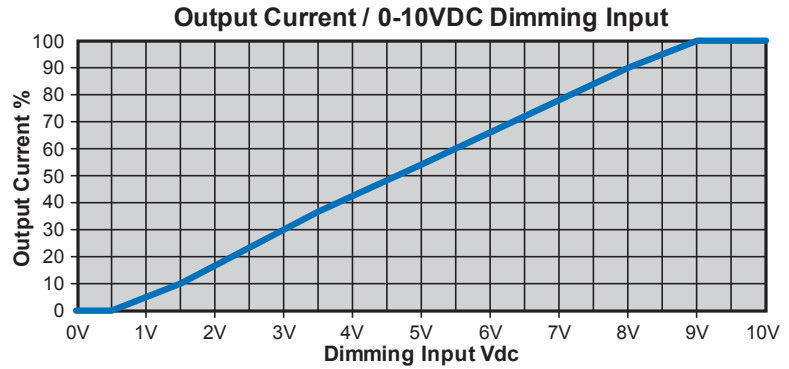
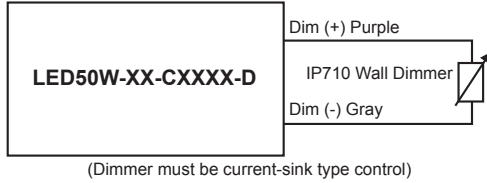
See website for additional information

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
Source Current out of 0-10V Purple Wire	0 mA	—	2 mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0 V	—	+15 V

Typical Dimming Circuit



Notes:

- 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
- Compatible with most 0-10V dimmers. Recommended dimmer is Leviton IP710 or equivalent
- 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V
- 0-10V dimmable version output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.