

LED90W Series

Switch Mode LED Drivers



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:	<30.0 Amps max @ 230 Vac, cold start 25°C
Input Current:	1.2 Amps max
Maximum Power:	90W
Current Accuracy:	± 1% Over input line variation
Load Regulation:	± 3%
THD:	≤ 20% @ full load
Hold-up Time:	Half Cycle
Leakage Current:	400 µA Typical

Protections

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

Environmental Specifications

Maximum Case Temp.	90°C
Minimum Starting Temp:	-30°C
UL Type TL Rating:	Class 2: 90/69°C; Non-Class 2: 90/69°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
MTBF:	418,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant

Ordering Options:

-D: 0-10V & Resistance dimmable version comes with an extra two wires +Purple/-Gray on the output side. -D 0-10V Dimming is compatible with most quality 0-10V wall dimmers.

See page 3 for additional specifications.

- Total Power: 90 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66
- High Power Factor
- UL Type HL Rated for Hazardous Locations

Safety Cert.	Standard
UL/CUL	UL8750 & CAN/CSA-22.2
CE	EN 61347
EMC Standard	Notes
FCC, 47CFR Part 15	Class B
EN 61000-3-2	
EN 61000-3-3	Class C
EN 61000-4-5	2 kV/4 kV 8/20µsec



Constant Current & Constant Voltage with Isolation Black Magic Thermal Advantage™ Aluminum Housing

Constant Current Models

Model	Output Current (mA ±3%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
LED90W-257-C0350-XX	350	85-257	90	92%
LED90W-200-C0450-XX	450	66-200	90	92%
LED90W-128-C0700-XX	700	42-128	90	92%
LED90W-085-C1050-XX	1050	28-85	90	91%
LED90W-064-C1400-XX	1400	21-64	90	91%
LED90W-056-C1600-XX	1600	18-56	90	91%
LED90W-048-C1875-XX	1875	16-48	90	91%
LED90W-036-C2500-XX	2500	12-36	90	90%
LED90W-030-C3000-XX	3000	10-30	90	90%
LED90W-027-C3330-XX	3330	9-27	90	89%
LED90W-025-C3500-XX	3500	8-25	90	89%
LED90W-022-C4090-XX	4090	7-22	90	89%
LED90W-020-C4500-XX	4500	7-20	90	88%
LED90W-018-C5000-XX	5000	6-18	90	87%

-XX indicates dimming options are available. See options at left. Blank = fixed current output

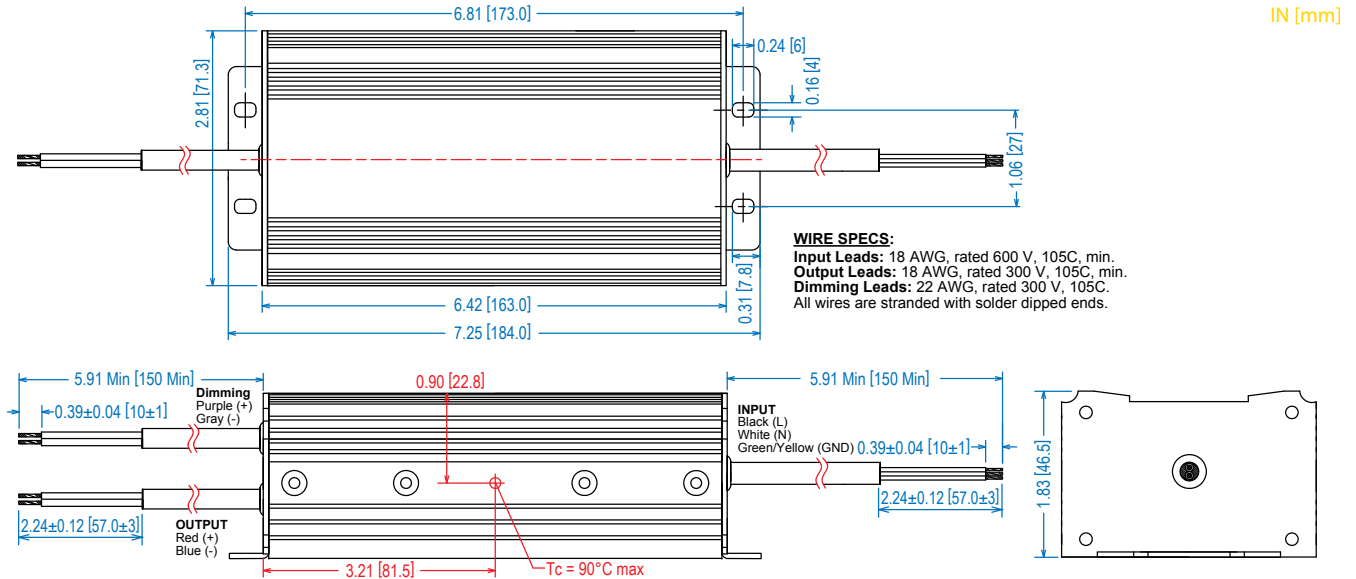
Constant Voltage Models

Model	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max. Output Power (W)	Typical Efficiency
LED90W-015	15	1500-6000	90	87%
LED90W-018	18	1250-5000	90	87%
LED90W-020	20	1125-4500	90	88%
LED90W-022	22	1023-4090	90	89%
LED90W-025	25	875-3500	90	89%
LED90W-027	27	833-3330	90	89%
LED90W-030	30	750-3000	90	90%
LED90W-036	36	625-2500	90	90%
LED90W-048	48	469-1875	90	91%
LED90W-056	56	400-1600	90	91%
LED90W-064	64	350-1400	90	91%
LED90W-085	85	263-1050	90	91%
LED90W-128	128	175-700	90	92%
LED90W-200	200	113-450	90	92%
LED90W-257	257	88-350	90	92%

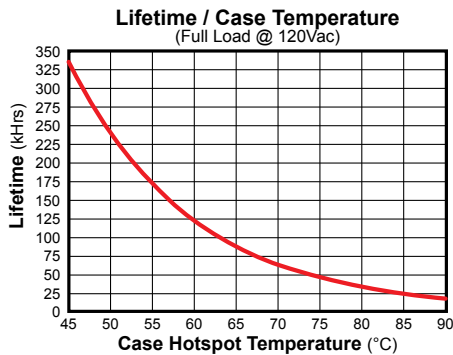
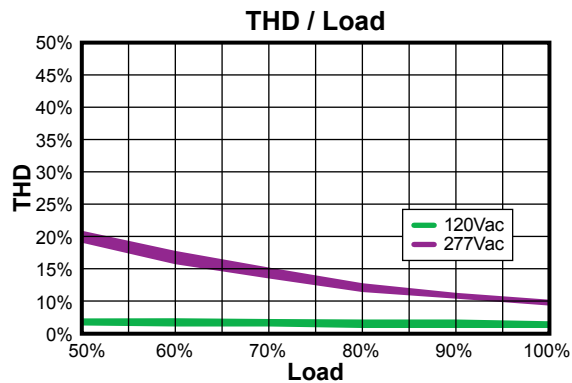
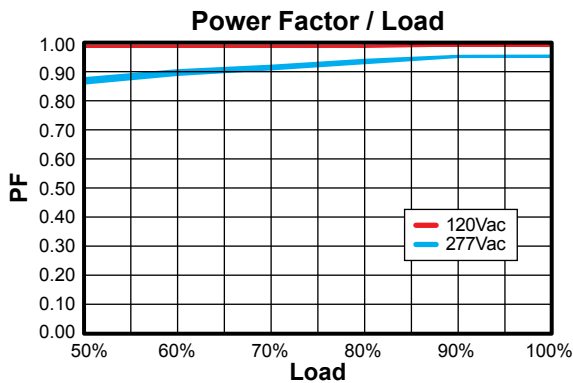
Class 2: US/Canada



Dimensions



Power Characteristics



UL Conditions of Acceptability

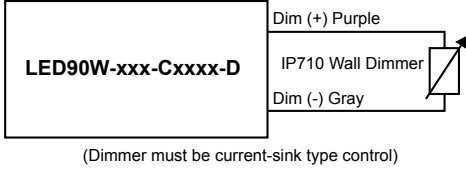
See website for additional information

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.

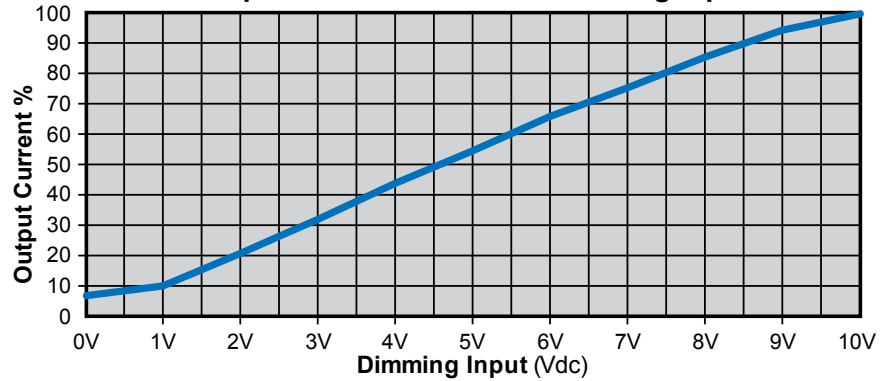
“-D” Option: 0-10VDC and Resistance Dimming

Parameters	Minimum	Typical	Maximum
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



Output Current / 0-10VDC Dimming Input



Notes:

- 0-10V dimmable version comes with an extra two wires +Purple/-Gray on the output side.
- Compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal. 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.