

LED-40W Series

Fixed Output and Dimmable 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:	<20.0 Amps max @ 230 Vac, cold start 25°C
Input Current:	0.40 Amps max
Maximum Power:	40W
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	Over-Voltage, Over-Current
Short Circuit	Auto Recovery

Environmental Specifications

Maximum Case Temp.	90°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
MTBF:	482,000 Hours at full load and 40°C ambient conditions per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant

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

Ordering Options:

- D: 2-wire dimmable model dims 100% to 10%. Two extra wires included on the output side: +Purple/-Gray. This model is offers 0-10V & Resistance dimming, compatible with most quality 0-10V dimmers. See page 3.
- D3: 3-wire dimmable model dims 100% to 10%. Three extra wires included on the output side: Yellow/Purple/Gray. This model is suitable for potentiometer dimming. See page 3.

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

Constant Current Models

Model	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max Output Power (W)	Max Efficiency
LED40W-114-C0350-XX	350	38-114	40	87%
LED40W-100-C0400-XX	400	33-100	40	87%
LED40W-089-C0450-XX	450	30-89	40	87%
LED40W-054-C0700-XX	700	18-54	37.8	86%
LED40W-048-C0830-XX	830	16-48	40	86%
LED40W-045-C0900-XX	900	15-45	40	86%
LED40W-040-C1000-XX	1000	13-40	40	85%
LED40W-036-C1100-XX	1100	12-36	40	86%
LED40W-030-C1300-XX	1300	10-30	39.0	86%
LED40W-030-C1400-XX	1400	10-30	42	85%
LED40W-024-C1300-XX	1300	8-24	31.2	86%
LED40W-024-C1400-XX	1400	8-24	33.6	86%
LED40W-024-C1670-XX	1670	8-24	40	86%
LED40W-022-C1820-XX	1820	7-22	40	86%
LED40W-018-C2220-XX	2200	6-18	40	85%
LED40W-015-C2680-XX	2680	5-15	40	85%
LED40W-013-C3080-XX	3080	4-13	40	85%
LED40W-012-C3330-XX	3330	4-12	40	84%
LED40W-010-C4000-XX	4000	3-10	40	84%
LED40W-009-C4450-XX	4450	3-9	40	83%

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

Constant Voltage Models

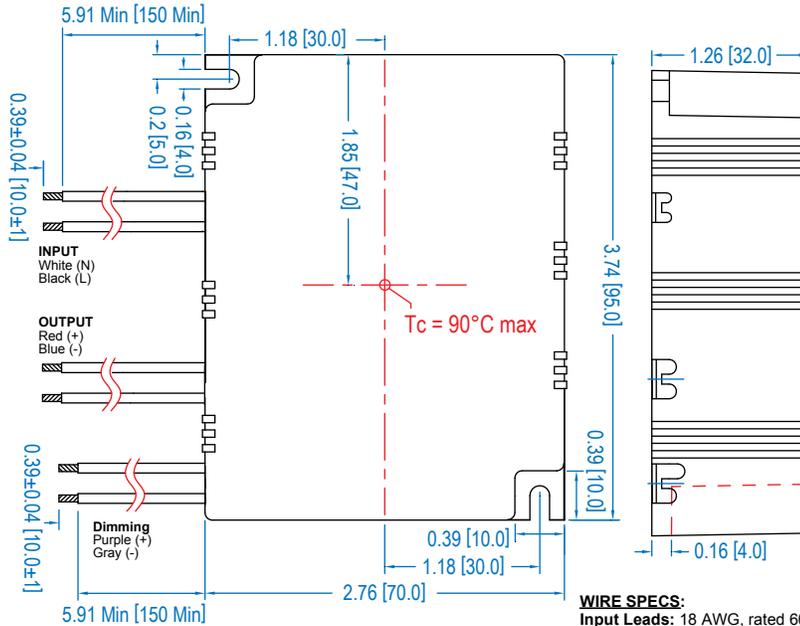
Model	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max Output Power (W)	Max Efficiency
LED40W-009	9	1113-4450	40	83%
LED40W-010	10	1000-4000	40	84%
LED40W-012	12	833-3330	40	84%
LED40W-013	13	770-3080	40	85%
LED40W-015	15	670-2680	40	85%
LED40W-018	18	550-2200	40	85%
LED40W-022	22	455-1820	40	86%
LED40W-024	24	418-1670	40	86%
LED40W-030	30	350-1400	42	85%
LED40W-036	36	275-1100	40	86%
LED40W-040	40	250-1000	40	85%
LED40W-045	45	225-900	40	86%
LED40W-048	48	208-830	40	86%
LED40W-054	54	175-700	40	86%
LED40W-089	89	113-450	40	87%
LED40W-100	100	100-400	40	87%
LED40W-114	114	88-350	40	87%

• Indicates S.A.M.

Class 2: US/Canada



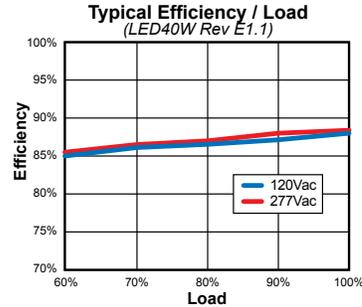
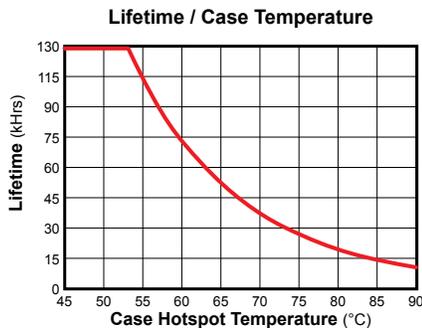
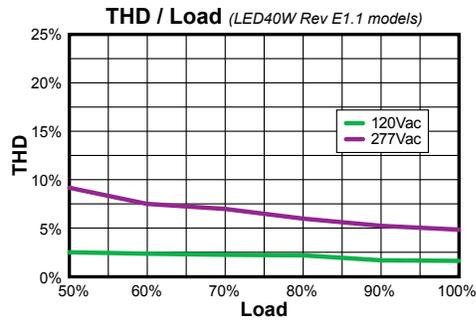
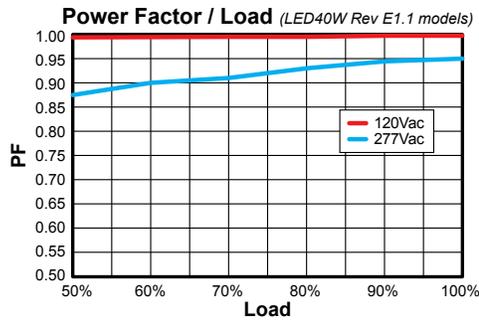
Dimensions



IN [mm]

WIRE SPECS:
Input Leads: 18 AWG, rated 600 V, 105C, min.
Output Leads: 18 AWG, rated 300 V, 105C, min.
Dimming Leads: 22 AWG, rated 300 V, 105C.
All wires are stranded with solder dipped ends.

Power Characteristics

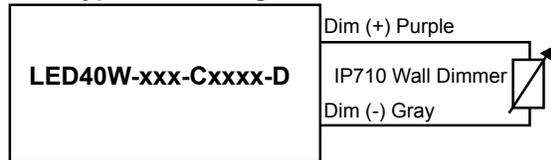


Note: The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances of a failure to function. Other electrical, mechanical and environmental factors affect driver lifetime but are not represented in this calculation.

“-D” and “-D3” Option: 0-10VDC and Resistance Dimming

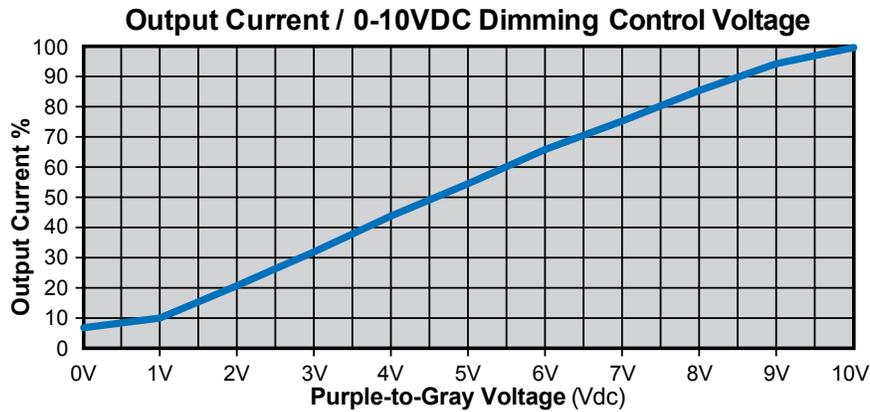
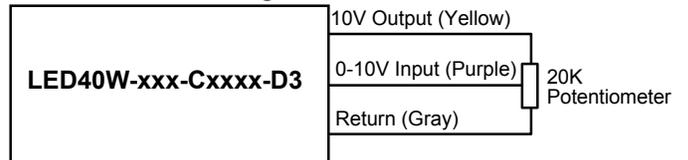
Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0 mA	---	2 mA
Absolute Voltage Range on 0-10V (+) Yellow Wire	-2.0 V	---	+15 V
Source Current out of Aux Yellow Wire	---	---	10mA

“-D” Typical Dimming Circuit



(Dimmer must be current-sink type control)

“-D3” 3-Wire Dimming Circuit



Notes:

1. D dimmable version comes with an extra two wires on the output side: +Purple/-Gray.
2. Compatible with most 0-10V dimmers. Recommended dimmer is Leviton IP710 or equivalent.
3. D & D3 dimmable versions are not intended to dim below about 5% @ 0V or 10% @ 1.0V.
4. Output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.