

LED-40W-HL Series

Hazardous Location, 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 @ ≥ 60% load 100-230V, ≥ 85% load 277V
Inrush Current:	<20.0 Amps max @ 230 Vac, cold start 25°C
Input Current:	0.40 Amps typical @ 120Vac, 60Hz, Full Load
Maximum Power:	40W
Current Regulation:	± 3% Over input line variation
Load Regulation:	±4%
THD:	≤ 20% @ ≥ 60% load 100-230V, ≥ 80% load 277V
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)	66°C
Maximum Case Temp (UL):	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
Impact Resistance:	1g/s
MTBF:	482,000 Hrs @ full load, 40°C per MIL-217F Notice 2
Weight:	12.9 oz (364 g)

- Total Power: 40 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
- UL Type HL, with V5A Case
- Rated for Hazardous Locations

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.



Constant Current Models

Model	Current Out (mA ±3%)	Voltage Out, Range (Vdc)	Power Out Max (W)	Typical Effic (%)
LED40W-130-C0300-HL-XY	300	44-130	40	87
LED40W-114-C0350-HL-XY	350	38-114	40	86
LED40W-100-C0400-HL-XY	400	33-100	40	86
LED40W-089-C0450-HL-XY	450	30-89	40	86
LED40W-072-C0550-HL-XY	550	24-72	40	85
LED40W-054-C0700-HL-XY	700	18-54	38	85
LED40W-048-C0830-HL-XY	830	16-48	40	85
LED40W-045-C0900-HL-XY	900	16-45	40	85
LED40W-040-C1000-HL-XY	1000	13-40	40	85
LED40W-036-C1100-HL-XY	1100	12-36	40	85
LED40W-030-C1400-HL-XY	1400	10-30	42	85
LED40W-024-C1670-HL-XY	1670	8-24	40	85
LED40W-022-C1820-HL-XY	1820	7-22	40	85
LED40W-018-C2220-HL-XY	2200	6-18	40	84
LED40W-015-C2680-HL-XY	2680	5-15	40	84
LED40W-013-C3080-HL-XY	3080	4-13	40	84
LED40W-012-C3330-HL-XY	3330	4-12	40	83
LED40W-010-C4000-HL-XY	4000	3-10	40	83
LED40W-009-C4450-HL-XY	4450	3-9	40	82

-X indicates lead options. B for bottom leads, S for side leads.
-Y indicates dimming options are available. See options below. Blank = fixed current output

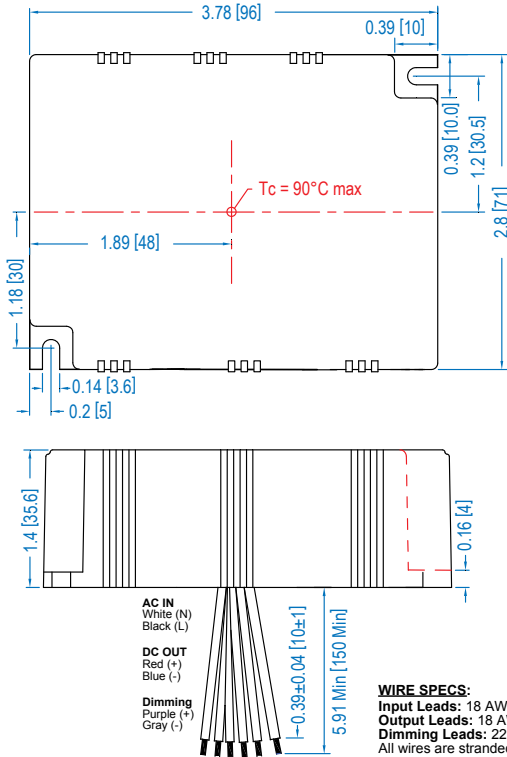
Constant Voltage Models

Model	Voltage Out (Vdc ±5%)	Current Out Range (mA)	Power Out Max (W)	Typical Effic (%)
LED40W-009-HL-X	9	1113-4450	40	87
LED40W-010-HL-X	10	1000-4000	40	86
LED40W-012-HL-X	12	825-3330	40	86
LED40W-013-HL-X	13	770-3080	40	86
LED40W-015-HL-X	15	670-2680	40	85
LED40W-018-HL-X	18	550-2200	40	85
LED40W-022-HL-X	22	455-1820	40	85
LED40W-024-HL-X	24	418-1670	40	85
LED40W-030-HL-X	30	350-1400	42	85
LED40W-036-HL-X	36	275-1100	40	85
LED40W-040-HL-X	40	250-1000	40	85
LED40W-045-HL-X	45	225-900	40	85
LED40W-048-HL-X	48	208-830	40	85
LED40W-054-HL-X	54	175-700	38	84
LED40W-072-HL-X	72	138-550	40	84
LED40W-089-HL-X	89	113-450	40	84
LED40W-100-HL-X	100	100-400	40	83
LED40W-114-HL-X	114	75-350	40	83
LED40W-130-HL-X	130	75-300	40	82

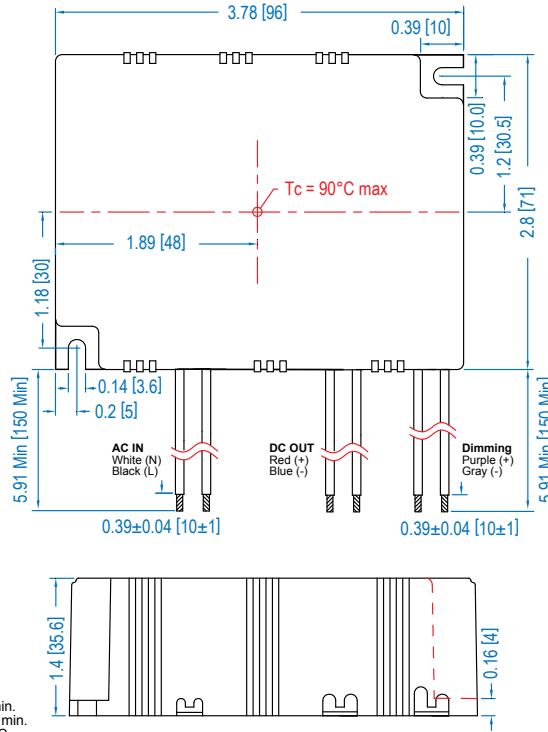
Class 2: US/Canada

Dimensions

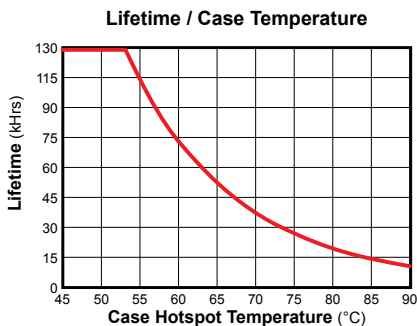
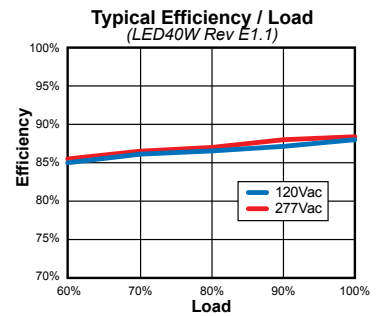
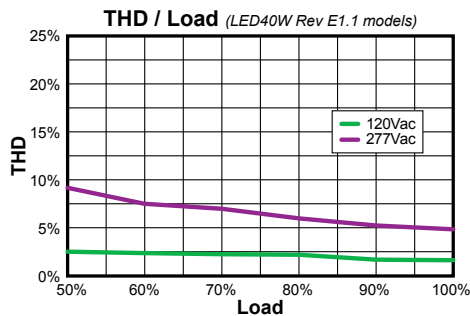
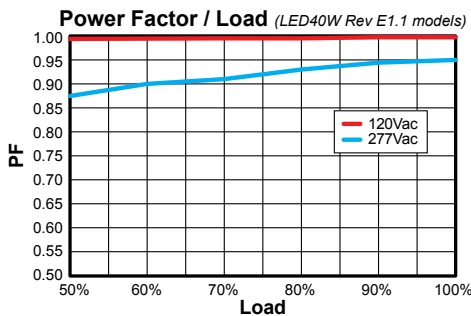
Standard “-BY” Bottom Leads Configuration:



“-SY” Optional Side Leads Configuration:



Power Characteristics



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

UL Conditions of Acceptability

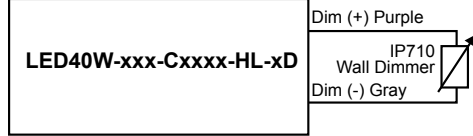
See website for additional information

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.

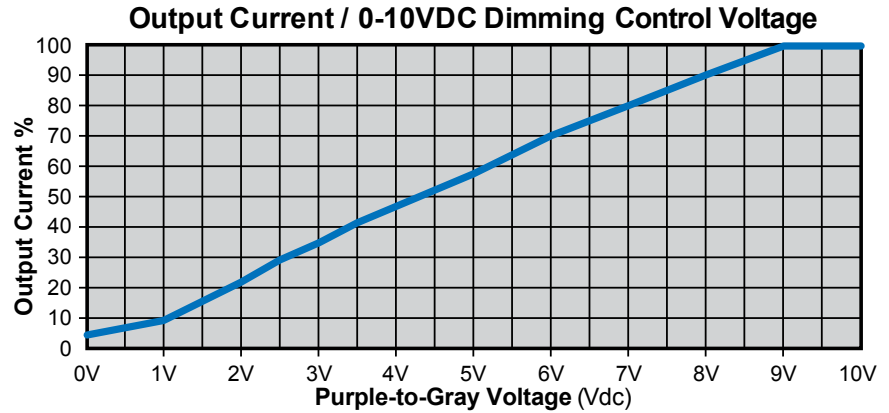
“-D” Option: 0-10VDC and Resistance Dimming

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

“-D” Typical Dimming Circuit



(Dimmer must be current-sink type control)



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.