



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	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
Impact Resistance:	1g/s
MTBF:	482,000 Hrs @ full load, 40°C per MIL-217F Notice 2
Weight:	12.9 oz (364 g)

Ordering Options:

-D: Dimmable model dims 100-10%. Two extra wires on the output side: +Purple/-Gray. It offers 0-10V & Resistance dimming, compatible with most quality 0-10V dimmers. See page 3.

- Total Power: 40 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66
- High Power Factor
- UL Type HL, with V5A Case
- Rated for Hazardous Locations

Safety Cert.	Standard
UL/CUL	UL8750
CSA	22.2
CE	EN61347
EMC Standard	Notes
EN55015	
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	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

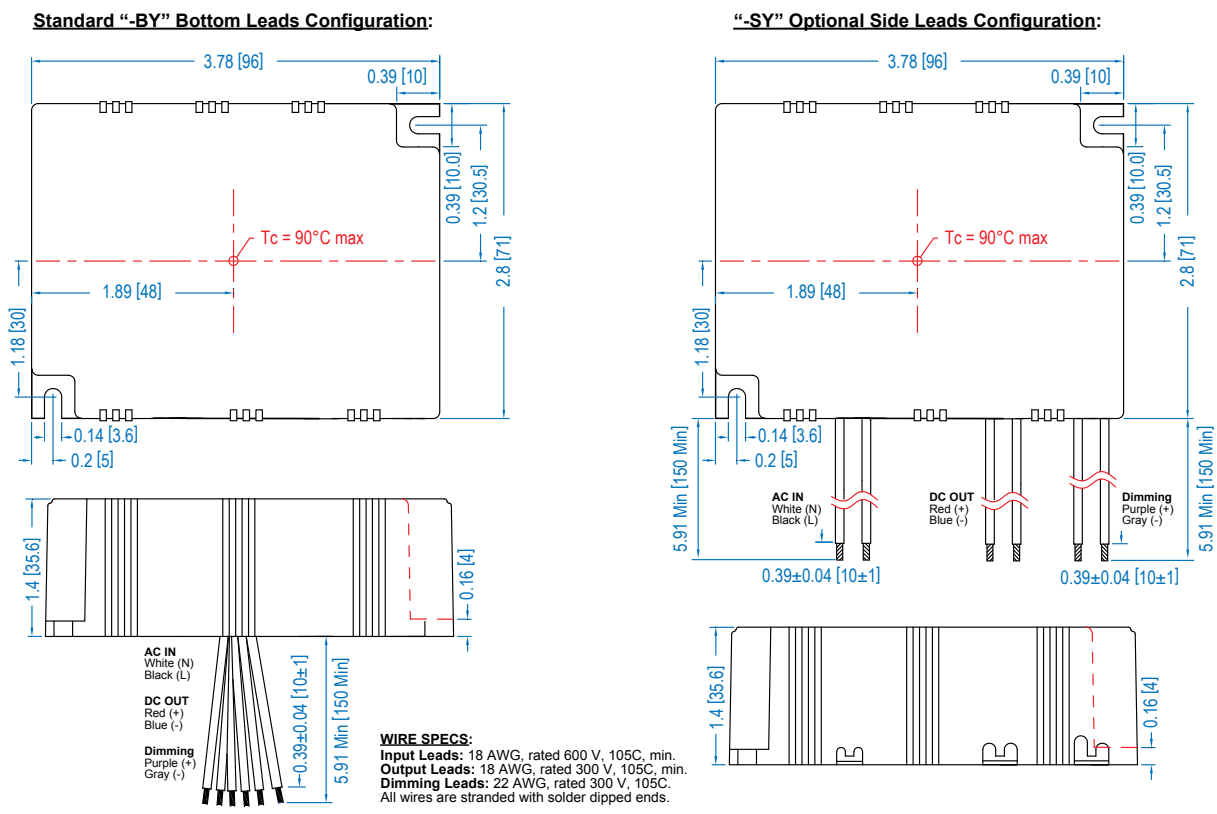
Constant Voltage Models

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

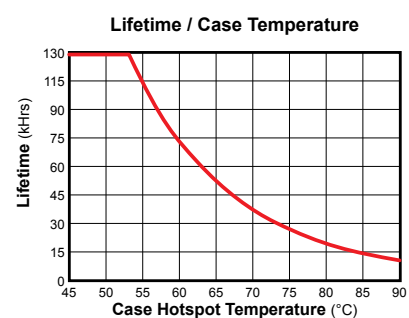
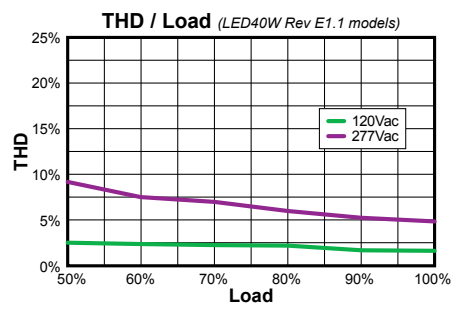
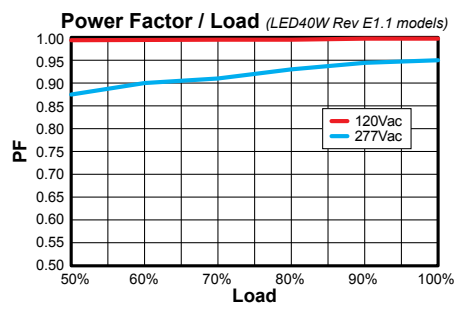
Class 2: US/Canada



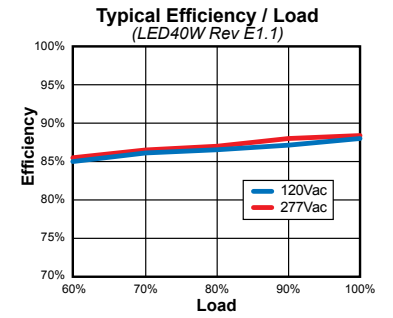
Dimensions



Power Characteristics



UL Conditions of Acceptability
 See website for additional information



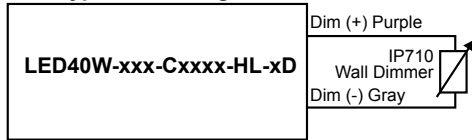
Note: The area under the life-temperature curve represents where the driver has highly reliable operation within specification. Driver performance may drift out of published specifications as the hours of operation exceed the curve at a given temperature. Higher operating temperatures increase the chances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



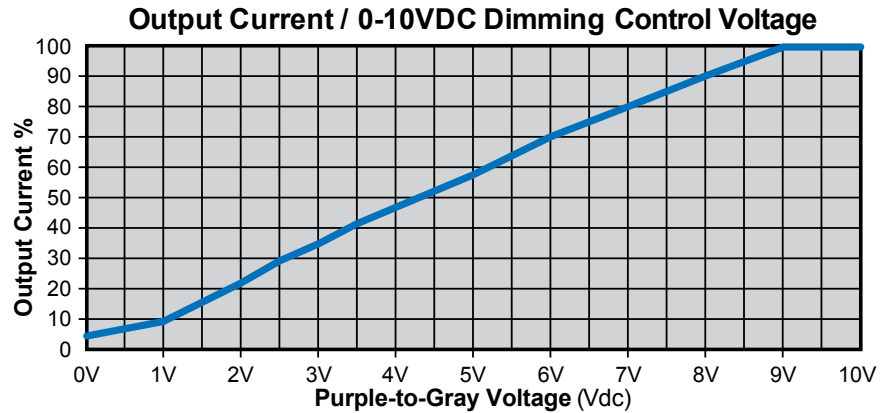
“-D” Option: 0-10VDC and Resistance Dimming

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

“-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.