



# LED-40W-HL-HV Series— Hazardous Location, High Voltage Input Drivers

Fixed Output and Dimmable Switch Mode LED Drivers  
Constant Current & Constant Voltage with Isolation  
Black Magic Thermal Advantage™ Plastic Housing

## Electrical Specifications

Input Voltage Range:	347-480 Vac Nom. (312-528 V Min/Max)
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor:	>0.90 @ >60% load 347V, >80% load 480V
Inrush Current:	<30.0 Amps max @ 480Vac, full load, cold start 25°C
Input Current:	0.14 Amps typical @ 347Vac, 60 Hz, full load
Maximum Power:	40W
Current Accuracy:	± 3% Over input line variation
Load Regulation:	± 4%
THD:	≤ 20% @ any load, 347V/480V
Leakage Current:	600 µA Typical
Hold Up Time:	Half Cycle
Output Protection:	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 @ 40°C:	482,000 Hours at full load, per MIL-217F Notice 2
EMC:	FCC 47CFR Part 15 Class B compliant
Weight:	12.9 oz (364 g)

-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

### 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.  
-P: PWM dimmable version dims 100-10%. Two extra wires on the output side: +Purple/-Gray. It is PWM Dimmable via a positive duty cycle, 200Hz to 1KHz, 0-10V Pulse. See page 4.



**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.  
Specifications subject to change without notice.



- Total Power: 40 Watts
- Input Voltage: 347-480 Vac Nom.
- UL Dry & Damp Location Rated
- IP66
- High Power Factor
- UL Type HL, with V5A Case and internal thermal protection
- Rated for Hazardous Locations

## Constant Current - Product Specifications

Model Number	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max Output Power (W)	Typical Efficiency
LED40W-130-C0300-HL-XY-HV	300	44-130	39.0	86%
LED40W-114-C0350-HL-XY-HV	350	38-114	39.9	86%
LED40W-100-C0400-HL-XY-HV	400	33-100	40	85%
LED40W-089-C0450-HL-XY-HV	450	30-89	40	85%
LED40W-072-C0550-HL-XY-HV	550	24-72	39.6	84%
LED40W-057-C0700-HL-XY-HV	700	20-57	40	83%
LED40W-048-C0830-HL-XY-HV	830	16-48	39.8	83%
LED40W-045-C0900-HL-XY-HV	900	16-45	40	83%
LED40W-040-C1000-HL-XY-HV	1000	13-40	40	82%
LED40W-036-C1100-HL-XY-HV	1100	12-36	39.6	82%
LED40W-030-C1400-HL-XY-HV	1400	10-30	42	82%
LED40W-024-C1670-HL-XY-HV	1670	8-24	40	82%
LED40W-022-C1820-HL-XY-HV	1820	7-22	40	82%
LED40W-018-C2200-HL-XY-HV	2200	6-18	39.6	81%
LED40W-015-C2680-HL-XY-HV	2680	5-15	40	81%
LED40W-013-C3080-HL-XY-HV	3080	4-13	40	81%
LED40W-012-C3330-HL-XY-HV	3330	4-12	40	81%
LED40W-010-C4000-HL-XY-HV	4000	3-10	40	81%
LED40W-009-C4450-HL-XY-HV	4450	3-9	40	80%

## Constant Voltage - Product Specifications

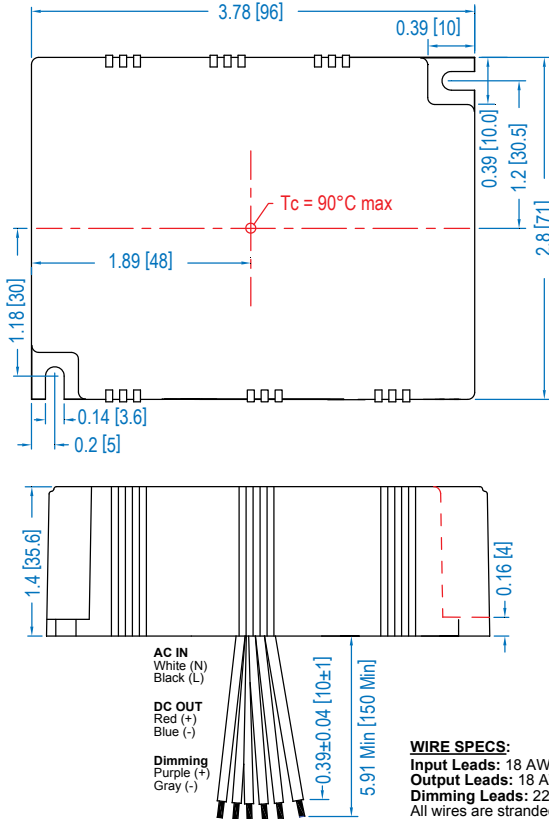
Model Number	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max Output Power (W)	Typical Efficiency
LED40W-009-HL-X-HV	9	1113-4450	40	82%
LED40W-010-HL-X-HV	10	1000-4000	40	83%
LED40W-012-HL-X-HV	12	825-3330	40	83%
LED40W-013-HL-X-HV	13	770-3080	40	84%
LED40W-015-HL-X-HV	15	670-2680	40	84%
LED40W-018-HL-X-HV	18	550-2200	39.6	84%
LED40W-022-HL-X-HV	22	455-1820	40	85%
LED40W-024-HL-X-HV	24	418-1670	40	85%
LED40W-030-HL-X-HV	30	350-1400	42	85%
LED40W-036-HL-X-HV	36	275-1100	39.6	85%
LED40W-040-HL-X-HV	40	250-1000	40	85%
LED40W-045-HL-X-HV	45	225-900	40	85%
LED40W-048-HL-X-HV	48	208-830	39.8	85%
LED40W-057-HL-X-HV	57	175-700	40	85%
LED40W-072-HL-X-HV	72	138-550	39.6	85%
LED40W-089-HL-X-HV	89	113-450	40	86%
LED40W-100-HL-X-HV	100	100-400	40	86%
LED40W-114-HL-X-HV	114	75-350	39.9	86%
LED40W-130-HL-X-HV	130	75-300	39.0	87%

Class 2: US/Canada

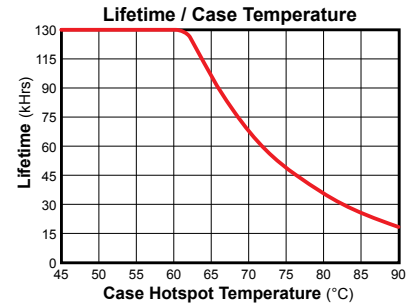
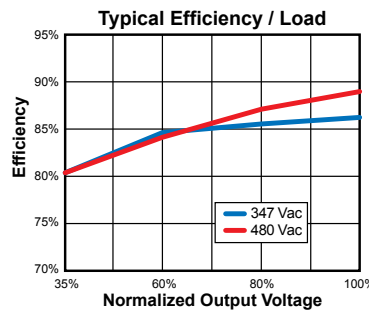
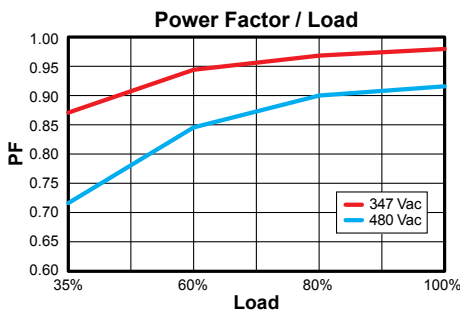
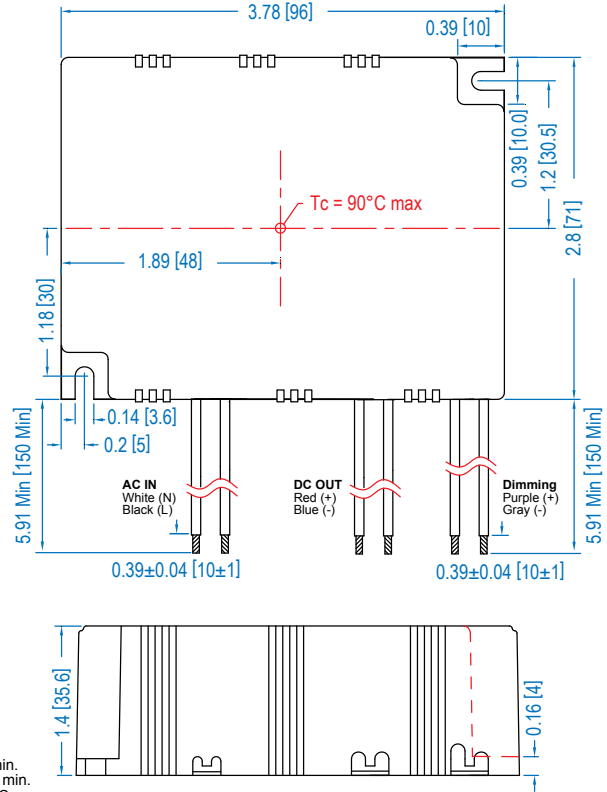
Rev 8-26-15

**Dimensions - Inches (mm)**

**Standard “-BY” Bottom Leads Configuration:**



**“-SY” Optional Side Leads Configuration:**



**Note:**  
Life calculations are based on reliability with confidence using a 90% confidence level and <5% failure rate. At a confidence level of 90% it is expected that <5% of the parts will fail at the rated life provided. (Failure is defined as a driver drifting outside specification, rather than fail to operate)

Safety and EMC Compliance	
UL/CUL	UL8750, CAN/CSA-C22.2 No. 250.13-12, UL1310 & CAN/CSA-22.1 No. 223-M91 (for Class 2), UL1012/CS-C22.2 No.107.1 (for Non-Class 2)
C E	EN 61347-1, EN 61347-2-13
FCC, 47CFR Part 15	Class B
EN 55015	
EN61000-3-2	> 80% Rated Power
EN61000-3-3	Class C
EN61000-4-5	2kV/4kV

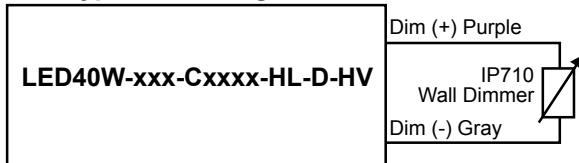
**UL Conditions of Acceptability**

See website for additional information

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

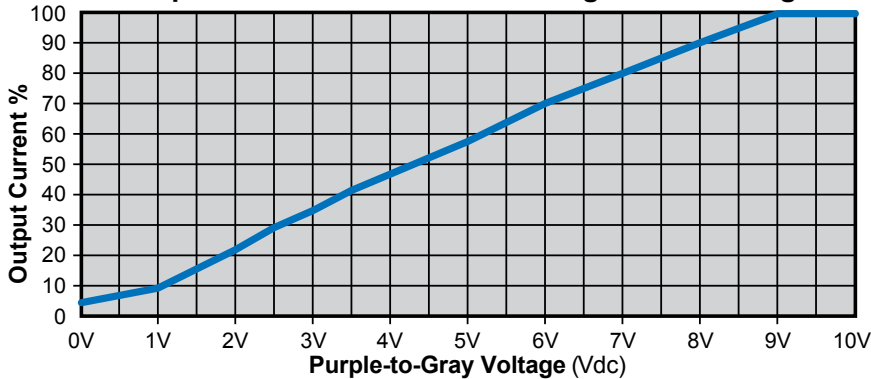
Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0 mA	—	2 mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0 V	—	+15 V

**“-D” Typical Dimming Circuit**



(Dimmer must be current-sink type control)

**Output Current / 0-10VDC Dimming Control Voltage**



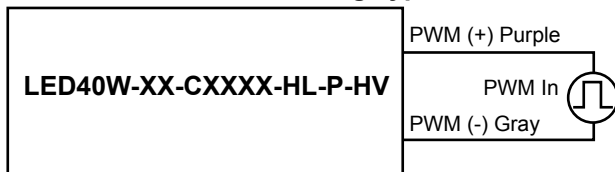
**Notes:**

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.

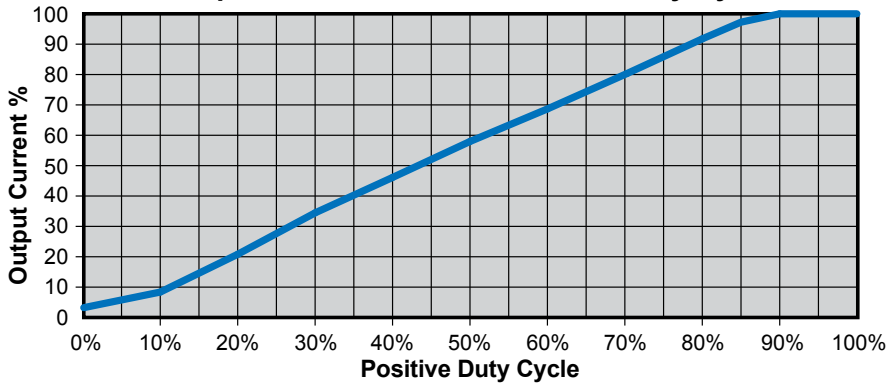
**“-P” Option: PWM Dimming**

Parameters	Minimum	Typical	Maximum
Absolute Maximum Voltage Range on PWM Input (Purple Wire)	-2.0V	10V	+15V
Input LOW Level Voltage Range (Purple Wire)	-2.0V	0V	+5.5V
Input HIGH Level Voltage Range (Purple Wire)	+9.0V	10V	+15V
Sink Current into PWM Input (Purple Wire)	0mA	—	1.2mA
Source Current out of PWM Input (Purple Wire)	0mA	—	2mA
PWM Input Signal Frequency	500Hz	—	1500Hz
PWM Input Signal Positive Duty Cycle	0%	10-90%	100%

**“-P” PWM Positive Dimming Typical Circuit**



**Output Current / 1.0kHz Positive Duty Cycle**



**Notes:**

1. PD dimmable version comes with an extra 2 wires on the output side for PWM type dimming: +Purple/-Gray.
2. Below 10% Duty cycle proper dimming operation is not assured. Unit is not intended to turn off at <10% Duty Cycle.
3. Output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.