

# LED-40W-HL-HV Series

Hazardous Location, High Voltage Input  
LED Drivers



## 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 (Max): | 0.15 Amps typical @ 347Vac, 60 Hz, full load        |
| Maximum Power:       | 40W   |
| Current Accuracy:    | ± 3% Over input line variation                      |
| THD:                 | ≤20% @ any load, 347V/480V                          |
| Leakage Current:     | 600 µA Typical                                      |
| Hold Up Time:        | Half Cycle  |
| Load Regulation:     | ± 4%  |

## Protections

|               |               |
|---------------|---------------|
| Over-voltage  | Output        |
| Over-current  | Output        |
| Short Circuit | Auto Recovery |

## Environmental Specifications

|                                       |   |
|---------------------------------------|---|
| Max Case Life Temp: (5 year warranty) | 75°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   |
| MTBF @ 40°C:                          | 482,000 Hours at full load, per MIL-217F Notice 2 |
| EMC:                                  | FCC 47CFR Part 15 Class A compliant               |
| Weight:                               | 12.9 oz (364 g)                                   |

- Total Power: 40 Watts
- Input Voltage: 347-480 Vac Nom.
- Constant Current & Constant Voltage with Isolation
- UL Dry & Damp Location Rated
- IP66
- High Power Factor
- UL Type HL rated for Hazardous Locations, with V5A Case and internal thermal protection
- Black Magic Thermal Advantage™ Plastic Housing

### Dimming Option:

“-D” 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.

### 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                     | 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%                |

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

## Constant Voltage Models

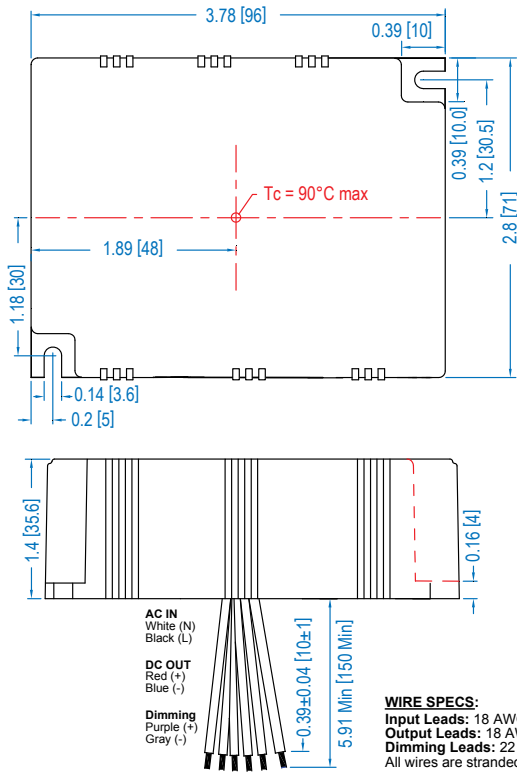
| Model              | Output Voltage (Vdc ±5%) | Output Current Range (mA) | Max Output Power (W) | Typical Efficiency |
|--------------------|--------------------------|---------------------------|----------------------|--------------------|
| LED40W-009-HL-X-HV | 9                        | 1113-4450                 | 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

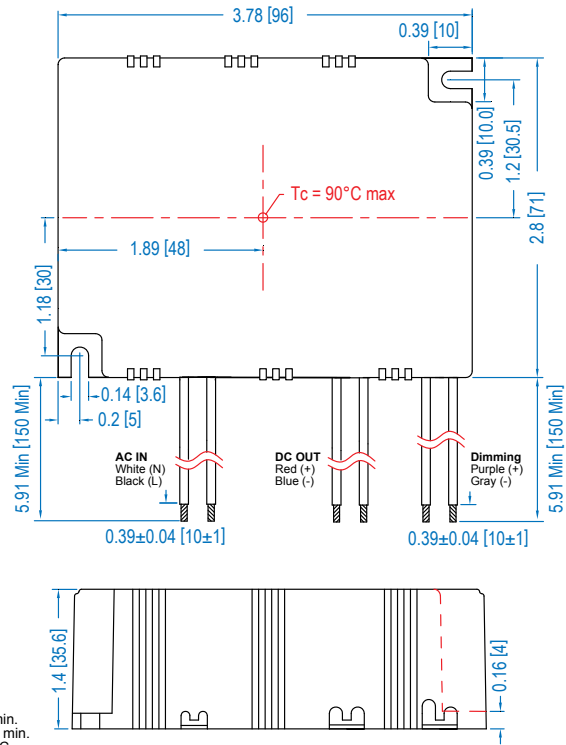


## Dimensions

Standard “-BY” Bottom Leads Configuration:

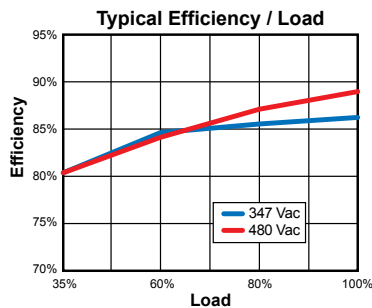
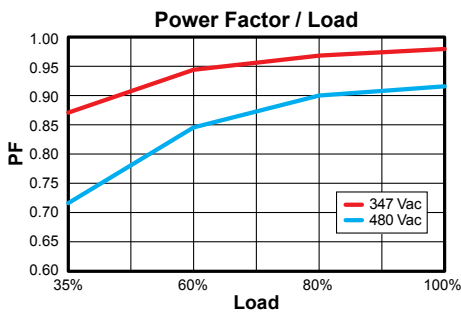


“-SY” Optional Side Leads Configuration:

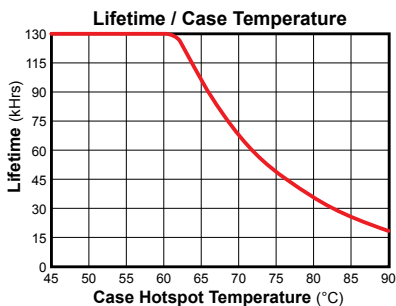


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## Power Characteristics



| Safety Cert        | Standard                            |
|--------------------|-------------------------------------|
| UL/CUL             | UL8750                              |
| CSA                | 22.2                                |
| CE                 | EN61347                             |
| EMC Standard       | Notes                               |
| EN55015            |                                     |
| EN61000-3-2        | > 80% Rated Power                   |
| EN61000-3-3        | Class C                             |
| FCC, 47CFR Part 15 | Class A                             |
| EN6100-4-5         | 3KV L-N, 8/20 μsec Surge Protection |



## UL Conditions of Acceptability

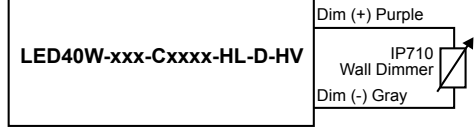
See website for additional information

**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.

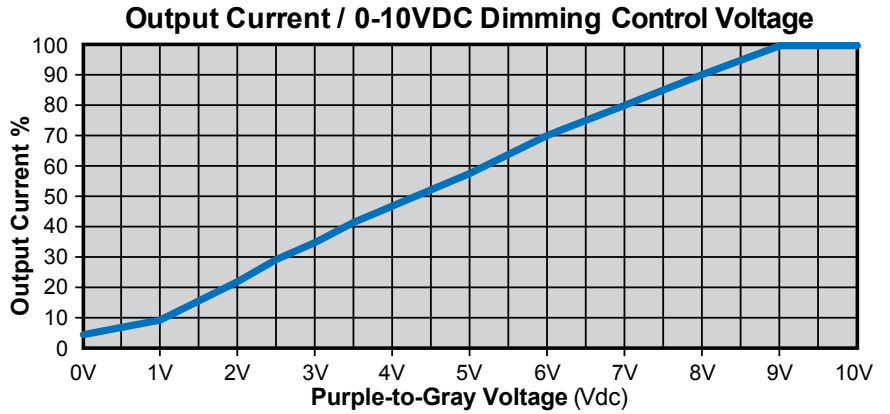
**“-D” Option: 0-10VDC and Resistance Dimming**

| 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.