



## LED-40W-HV Series— High Voltage Input, 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:                | 11 oz. (311 grams)                                |



- Total Power: 40 Watts
- Input Voltage: 347-480 Vac Nom.
- UL Dry & Damp Location Rated
- IP66 & NEMA4
- High Power Factor

### Constant Current - Product Specifications

| Model Number           | Output Current (mA ±5%) | Output Voltage Range (Vdc) | Max Output Power (W) | Typical Efficiency |
|------------------------|-------------------------|----------------------------|----------------------|--------------------|
| LED40W-130-C0300-XX-HV | 300                     | 44-130                     | 39.0                 | 87%                |
| LED40W-114-C0350-XX-HV | 350                     | 38-114                     | 39.9                 | 86%                |
| LED40W-100-C0400-XX-HV | 400                     | 33-100                     | 40                   | 86%                |
| LED40W-089-C0450-XX-HV | 450                     | 30-89                      | 40                   | 86%                |
| LED40W-072-C0550-XX-HV | 550                     | 24-72                      | 39.6                 | 85%                |
| LED40W-057-C0700-XX-HV | 700                     | 20-57                      | 40                   | 85%                |
| LED40W-048-C0830-XX-HV | 830                     | 16-48                      | 39.8                 | 85%                |
| LED40W-045-C0900-XX-HV | 900                     | 16-45                      | 40                   | 85%                |
| LED40W-040-C1000-XX-HV | 1000                    | 13-40                      | 40                   | 85%                |
| LED40W-036-C1100-XX-HV | 1100                    | 12-36                      | 39.6                 | 85%                |
| LED40W-030-C1400-XX-HV | 1400                    | 10-30                      | 42                   | 85%                |
| LED40W-024-C1670-XX-HV | 1670                    | 8-24                       | 40                   | 85%                |
| LED40W-022-C1820-XX-HV | 1820                    | 7-22                       | 40                   | 85%                |
| LED40W-018-C2200-XX-HV | 2200                    | 6-18                       | 39.6                 | 84%                |
| LED40W-015-C2680-XX-HV | 2680                    | 5-15                       | 40                   | 84%                |
| LED40W-013-C3080-XX-HV | 3080                    | 4-13                       | 40                   | 84%                |
| LED40W-012-C3330-XX-HV | 3330                    | 4-12                       | 40                   | 83%                |
| LED40W-010-C4000-XX-HV | 4000                    | 3-10                       | 40                   | 83%                |
| LED40W-009-C4450-XX-HV | 4450                    | 3-9                        | 40                   | 82%                |

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

### Constant Voltage - Product Specifications

| Model Number  | Output Voltage (Vdc ±5%) | Output Current Range (mA) | Max Output Power (W) | Max Efficiency |
|---------------|--------------------------|---------------------------|----------------------|----------------|
| LED40W-009-HV | 9                        | 1113-4450                 | 40                   | 80%            |
| LED40W-010-HV | 10                       | 1000-4000                 | 40                   | 81%            |
| LED40W-012-HV | 12                       | 825-3330                  | 40                   | 81%            |
| LED40W-013-HV | 13                       | 770-3080                  | 40                   | 81%            |
| LED40W-015-HV | 15                       | 670-2680                  | 40                   | 81%            |
| LED40W-018-HV | 18                       | 550-2200                  | 39.6                 | 81%            |
| LED40W-022-HV | 22                       | 455-1820                  | 40                   | 82%            |
| LED40W-024-HV | 24                       | 418-1670                  | 40                   | 82%            |
| LED40W-030-HV | 30                       | 350-1400                  | 42                   | 82%            |
| LED40W-036-HV | 36                       | 275-1100                  | 39.6                 | 82%            |
| LED40W-040-HV | 40                       | 250-1000                  | 40                   | 82%            |
| LED40W-045-HV | 45                       | 225-900                   | 40                   | 83%            |
| LED40W-048-HV | 48                       | 208-830                   | 39.8                 | 83%            |
| LED40W-057-HV | 57                       | 175-700                   | 40                   | 83%            |
| LED40W-072-HV | 72                       | 138-550                   | 39.6                 | 84%            |
| LED40W-089-HV | 89                       | 113-450                   | 40                   | 85%            |
| LED40W-100-HV | 100                      | 100-400                   | 40                   | 85%            |
| LED40W-114-HV | 114                      | 75-350                    | 39.9                 | 86%            |
| LED40W-130-HV | 130                      | 75-300                    | 39.0                 | 86%            |

Class 2: US/Canada

Rev 8-26-15

### Ordering Options:

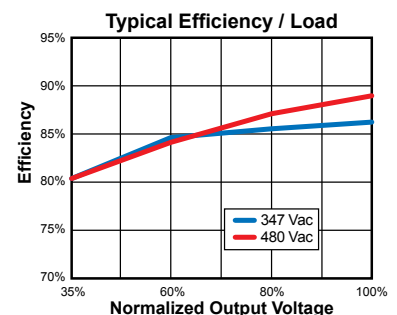
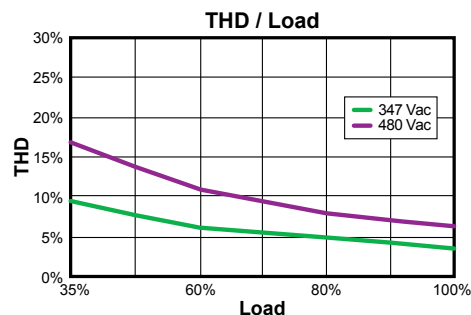
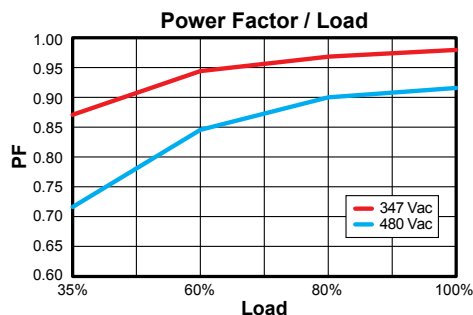
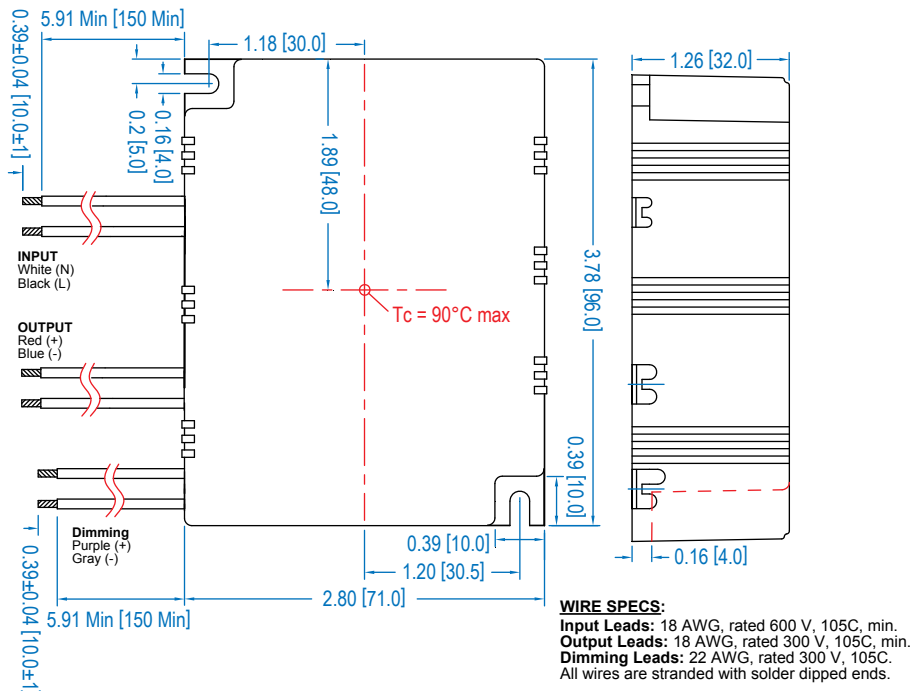
- D: 2-wire dimmable model dims 100% to 10%. Two extra wires included on the output side: +Purple/-Gray. This model is offers 0-10V & Resistance dimming, compatible with most quality 0-10V dimmers. See page 3.
- D3: 3-wire dimmable model dims 100% to 10%. Three extra wires included on the output side: Yellow/Purple/Gray. This model is suitable for potentiometer dimming. See page 3.
- PD: PWM dimmable version dims 100% to 10%. Two extra wires included on the output side: +Purple/-Gray. This model is PWM Dimmable via a positive duty cycle, 200Hz to 1KHz, 0-10V Pulse. See page 4.



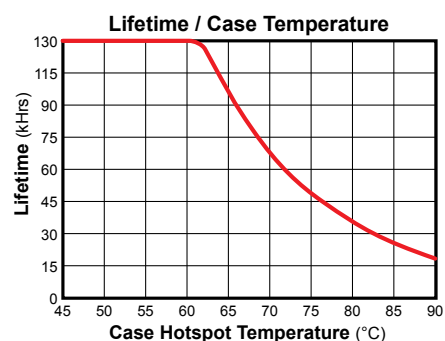
**Note:**  
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

Specifications subject to change without notice.

### Dimensions - Inches (mm)



| Safety and EMC Compliance |                                                                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| UL/CUL                    | UL8750, CAN/CSA-C22.2 No. 250.13-12,<br>UL1310 & CAN/CSA-22.1 No. 223-M91 (for Class 2),<br>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               | Class C, > 80% Rated Power                                                                                                             |
| EN61000-3-3               |                                                                                                                                        |
| EN61000-4-5               | 2kV L-N, 8/20 usec surge protection                                                                                                    |



## UL Conditions of Acceptability

See website for additional information

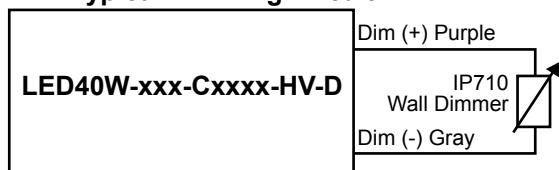
**Note:**

*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)*

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

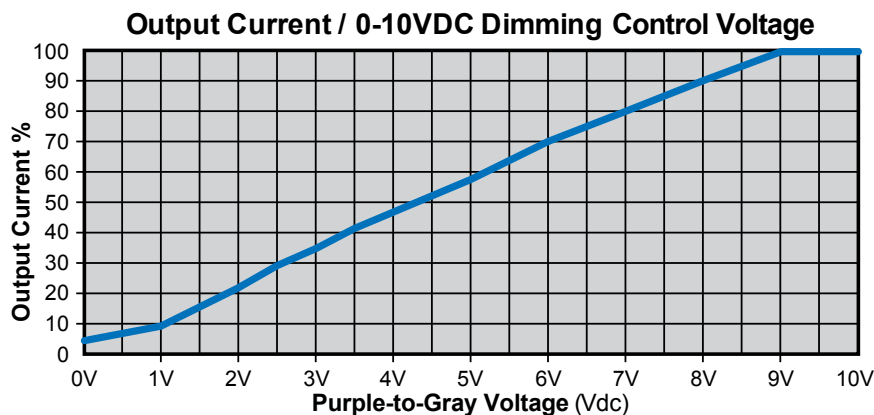
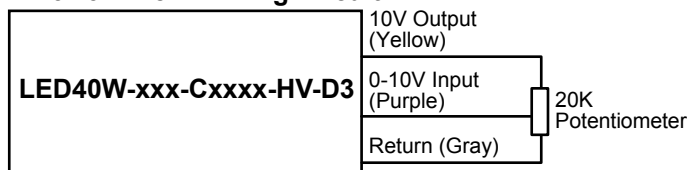
| Parameters                                      | Minimum | Typical | Maximum |
|-------------------------------------------------|---------|---------|---------|
| Source Current out of 0-10V Purple Wire         | 0 mA    | —       | 2 mA    |
| Absolute Voltage Range on 0-10V (+) Purple Wire | -2.0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

### “-D” Typical Dimming Circuit



(Dimmer must be current-sink type control)

### “-D3” 3-Wire Dimming Circuit



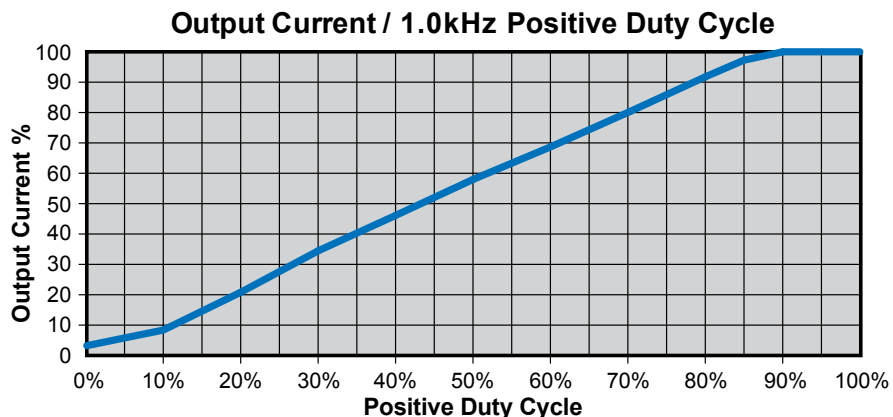
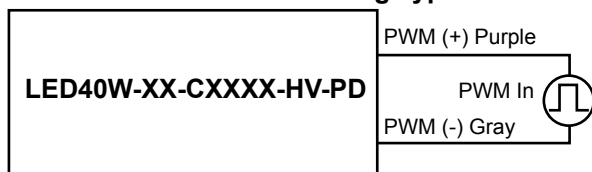
### Notes:

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.

## “-PD” 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%    |

## “-PD” PWM Positive Dimming Typical Circuit



### 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.