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 25ºC**
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:	**-30ºC**
Storage Temperature:	**-40ºC to +85ºC**
Humidity:	**5% to 95%**
Cooling:	**Convection**
Vibration Frequency:	**5 to 55 Hz/2g, 30 minutes**
Sound Rating:	**Class A**
MTBF @ 40ºC:	**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

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.

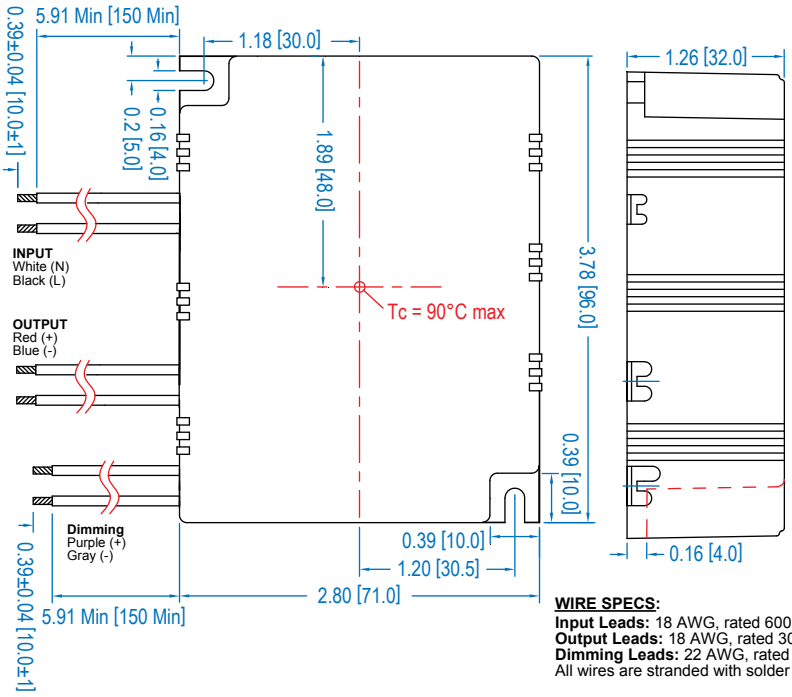
c UL us E332160 — RoHS Compliant — IP66

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.

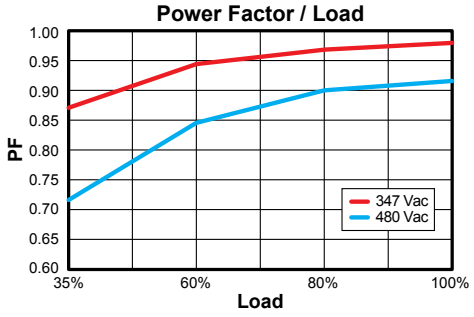
Specifications subject to change without notice.

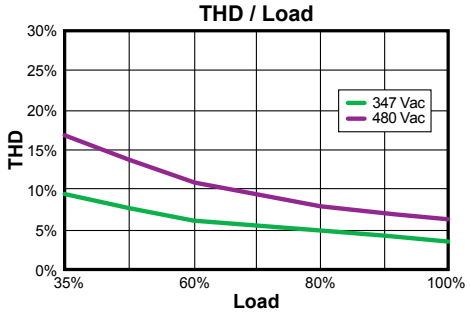
Rev 8-26-15

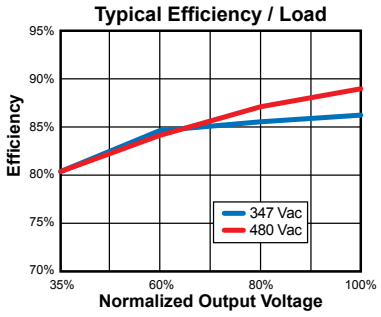
Dimensions - Inches (mm)



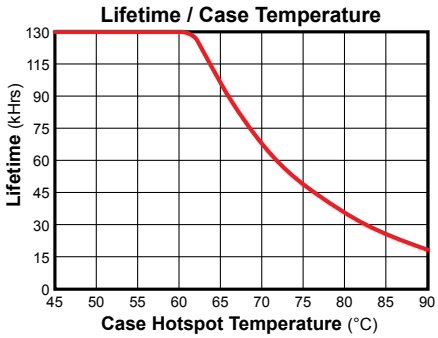
WIRE SPECS:
Input Leads: 18 AWG, rated 600 V, 105C, min.
Output Leads: 18 AWG, rated 300 V, 105C, min.
Dimming Leads: 22 AWG, rated 300 V, 105C.
All wires are stranded with solder dipped ends.







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	Class C, > 80% Rated Power
EN61000-3-3	
EN61000-4-5	2kV L-N, 8/20 µsec surge protection



UL Conditions of Acceptability

See website for additional information

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)

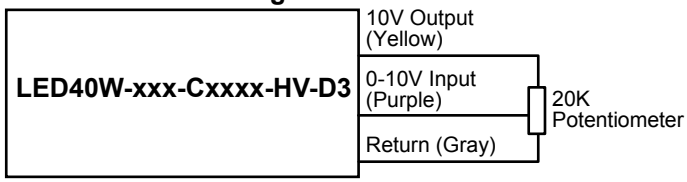
"-D" and "-D3" Option: 0-10VDC and Resistance Dimming

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

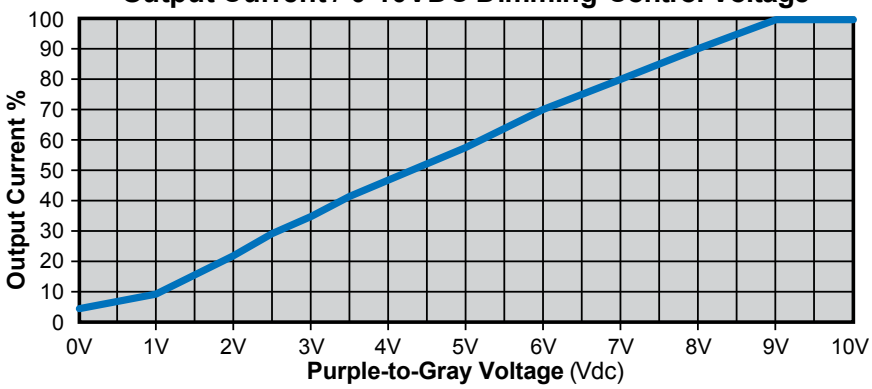
"-D" Typical Dimming Circuit

(Dimmer must be current-sink type control)

"-D3" 3-Wire Dimming Circuit



Output Current / 0-10VDC Dimming Control Voltage



Notes:

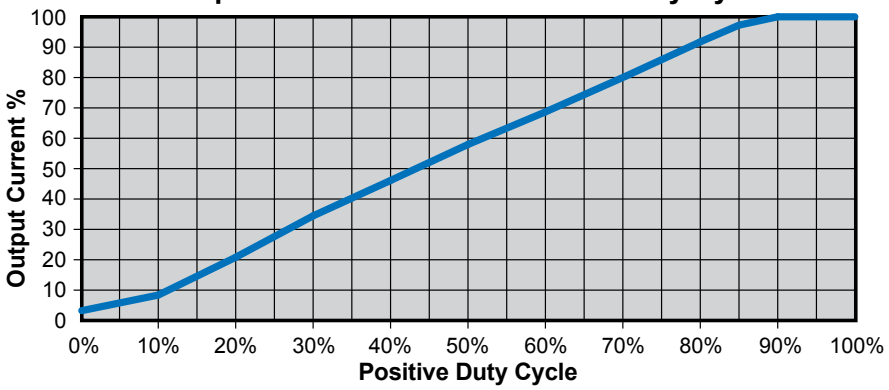
1. D dimmable version comes with an extra two wires on the output side: +Purple/-Gray.
2. Compatible with most 0-10V dimmers. Recommended dimmer is Leviton IP710 or equivalent.
3. D & D3 dimmable versions are not intended to dim below about 5% @ 0V or 10% @ 1.0V.
4. Output will be 100% with Purple/Gray open and minimum with Purple/Gray Shorted.

"-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

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.