



## VLED-40W Series Dimmable LED Drivers Constant Current Plastic Housing

### Electrical Specifications

Input Voltage Range:	100-277 Vac Nom. (90-305 V Min/Max)
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor:	>0.90 @ full load, 100V through 277V
Inrush Current:	70 Amps max @ 220 Vac, cold start 25°C
Input AC Current:	0.6 A max 100Vac, 0.3 A max 220Vac
Maximum Power:	42W
THD:	≤ 20% @ full load
Line Regulation:	± 1%
Load Regulation:	± 3%
Leakage Current:	0.75 mA max @ 277Vac 60Hz
Turn-on Delay:	0.6S @ 110Vac, 0.3S @ 220Vac Typical
Output Ripple:	50%, related to the Voltage-Current Curve of the LED
No-load Power Dissipation:	6W
Protection:	Over-Voltage, Over-Temperature (110°) and Short Circuit Protection with self-recovery

### Environmental Specifications

Minimum Starting Temp:	-40°C
Maximum Case Temp.	90°C
Storage Temperature:	-40°C to +85°C
Humidity:	5% to 100%
Cooling:	Convection
Sound Rating:	Class A
MTBF:	327,000 Hours @ 120Vac, 80% load and 25°C ambient conditions per MIL-HDBK-217F
Lifetime:	116,000 Hours @ 120Vac, 80% load and 60°C ambient
EMC:	FCC 47CFR Part 15 Class B compliant
Weight:	350 g

#### Ordering Options:

-D: 0-10V dimmable version comes with an extra three wires +Purple/-Gray/Yellow on the output side. 0-10V Dimming is compatible with most quality 0-10V wall dimmers and direct 0-10V analog signal. See page 2 for additional specifications.



- Total Power: 40 Watts
- Input Voltage: 100-277 Vac Nom.
- UL Dry & Damp Location Rated
- IP66
- High Power Factor with Active Correction
- Output Protection & Lightning Protection
- UL8750 and EN61347

### Constant Current - Product Specifications

Model Number	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
VLED40W-120-C0350-XX	350	60-120	42	90%
VLED40W-094-C0450-XX	450	47-94	42	89%
VLED40W-056-C0700-XX	700	28-56	39	89%
VLED40W-038-C1050-XX	1050	20-38	40	88%
VLED40W-032-C1280-XX	1280	17-32	42	87%
VLED40W-030-C1400-XX	1400	15-30	42	87%
VLED40W-024-C1750-XX	1750	12-24	42	87%

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

Class 2: US/Canada US Only

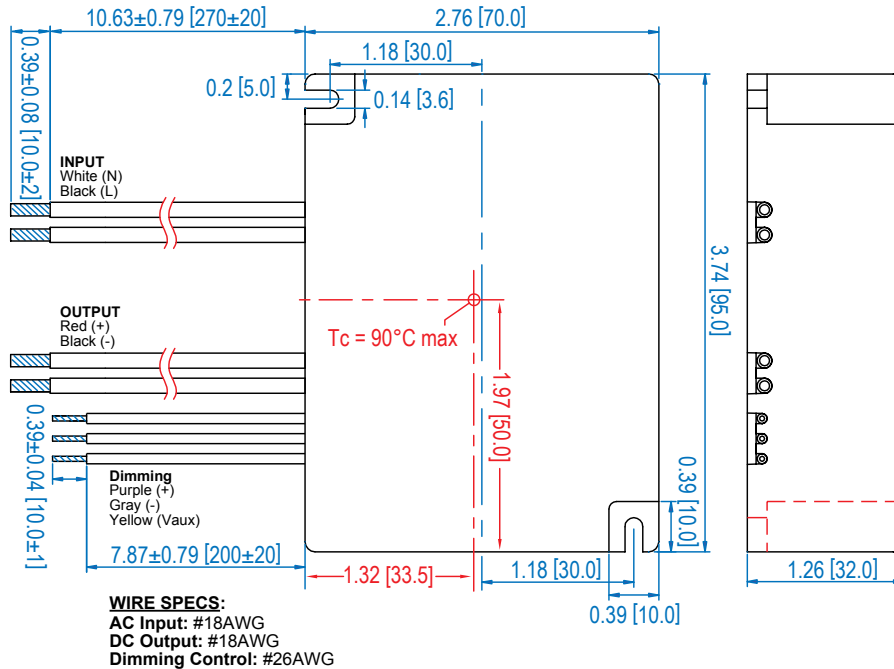


**Note:**  
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED drivers, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

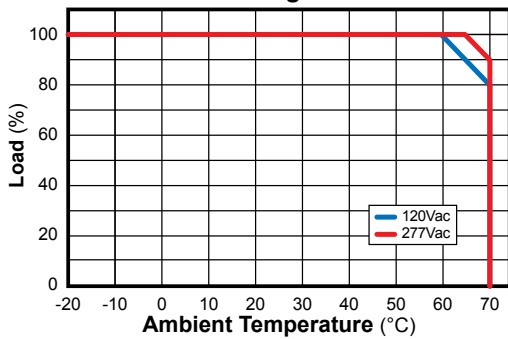
Specifications subject to change without notice.

Rev 9-2-15

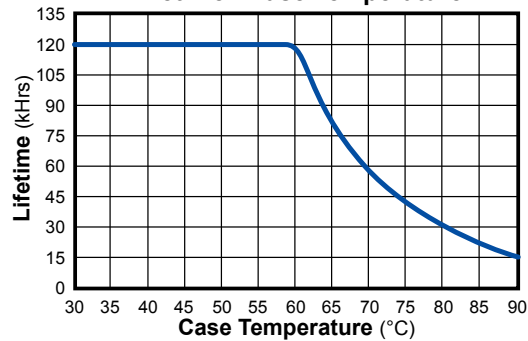
**Dimensions - mm**



**Derating Curve**



**Lifetime / Case Temperature**



**Safety and EMC Compliance**

UL/CUL	UL8750, UL1012, UL1310 Class 2, CSA-C22.2 No. 107.1, CSA-C22.2 NO. 223-M91 Class 2
C E	EN61347-1, EN61347-2-13
C QC	GB19510.14-2009, GB19510.1-2009, GB17743-2007, GB17625.1-2003
FCC Part 15 Class B	ANSI C63.4: 2009
EN55015	Conducted emission Test & Radiated emission Test
EN61000-3-2	Harmonic current emissions
EN61000-3-3	Voltage fluctuations & flicker
EN61000-4-2	Electrostatic Discharge (ESD): 4kV contact discharge, 8kV air discharge
EN61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN61000-4-4	Electrical Fast Transient / Burst-EFT: Level 3, Criteria A
EN61000-4-5	Surge Immunity Test: AC Power Line: line to line 2 kV
EN61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN61000-4-8	Power Frequency Magnetic Field Test
EN61000-4-11	Voltage Dips
EN61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

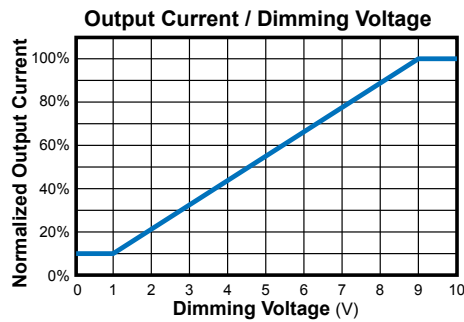
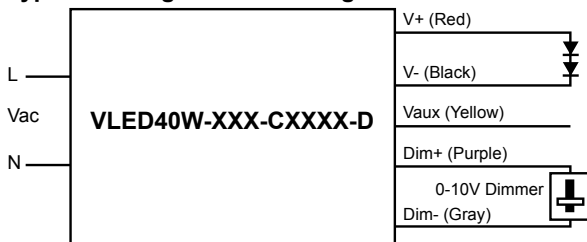
## Dimming Control

The dimmer control is operated from an input signal of 1 – 10 Vdc. Recommended implementation provided below.

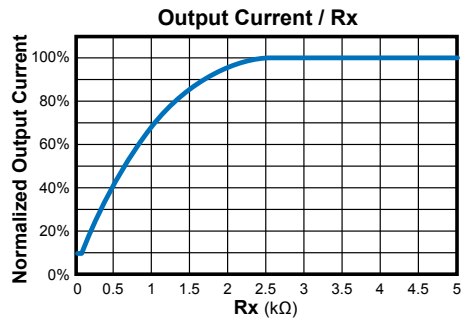
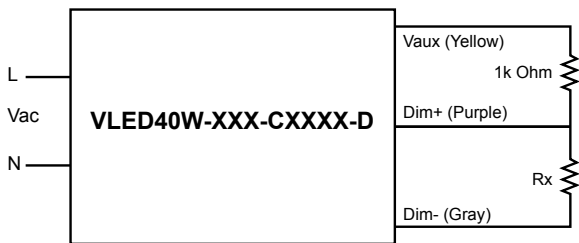
Parameters	Minimum	Typical	Maximum
12V output voltage	10.8V	12V	13.2V
12V output source current	0 mA	—	20mA
Absolute maximum voltage on the 1-10v input pin	0V	—	15V
Source current on 1-10V input pin	0 $\mu$ A	—	200 $\mu$ A

**Note:** Do not connect Dim- to V-

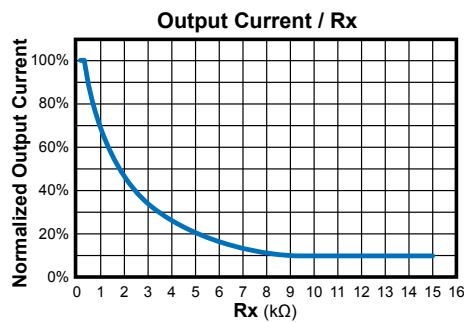
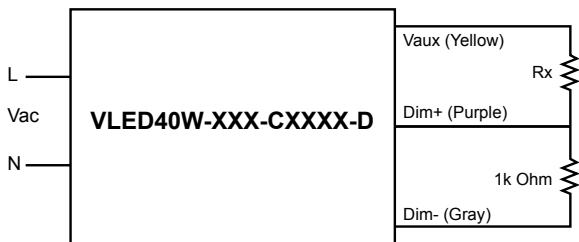
### Typical Analog 0-10V Dimming Circuit



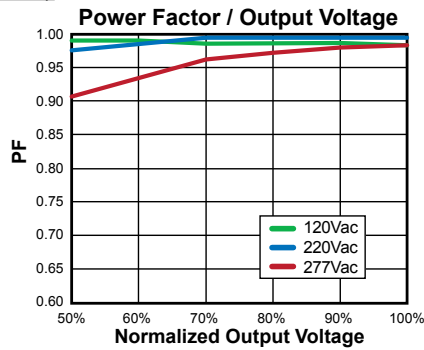
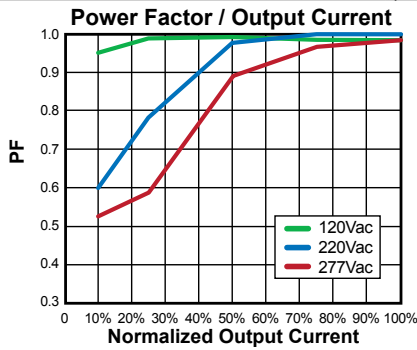
### External Resistor Circuit



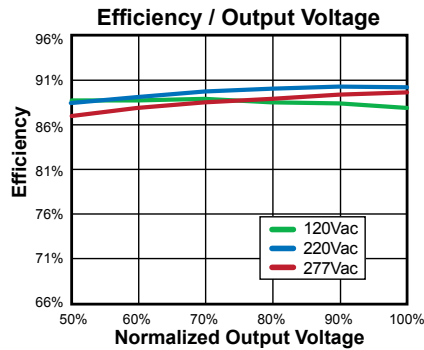
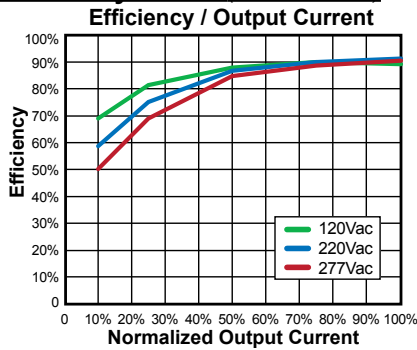
### External Resistor Circuit



**Power Factor Characteristics (350mA model)**



**Efficiency / Load (350mA model)**



**Total Harmonic Distortion (700mA model)**

