D23CC90UNVT-F

UNV Dimmable LED Driver w/ Tuning

- 2300mA Constant Current Output
- Class 2, 90W Output
- 0-10V Dimming Control

Performance	
Input Voltage	120 ~ 277 Vac
Input Current Max	0.88 /120V 0.38/277V
Input Power Max	100W
Input Frequency	50 - 60 (Hz)
Power Factor	> 0.95
THD max	< 20 %
Output Voltage	18-40V
Output Current	210mA - 2300mA
Output Power	90W
Line Regulation	±3 %
Load Regulation	±5 %
Output Current Ripple	<10%
Inrush Current Peak / >50% Duration	120V: 25A / 230uS 277V: 54A / 85uS

* Refer to charts for additional information

- Harmonic Emissions comply with ANSI C82.77
- Inrush current complies with NEMA 410

Environmental	
EMI and RFI	Meets FCC part 15 (Class A) Non-Consumer Limits
Minimum Operating Temperature	-40°C (-40°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
tc	85°C (185°F) max
Location Rating	UL Dry & Damp, Type HL
Transient Protection	IEEE C62.41 6kV/6kV**

**Driver uses MOVs for transient protection.
Refer to application note EVD07 at www.unvlt.com for additional information on Hi-Pot Testing.

Physical	
Length	9.50 in (241.3 mm)
Width	2.40 in (61.0 mm)
Height	1.55 in (39.4 mm)
Mounting Length	8.89 in (225.8 mm)
Weight (lbs)	2.6
Lead Lengths	
Black, White	11.5 in
Red(+), Blue(-), Pink*, Vio	11.5 in

Lead-wires are 18 AWG 90°C /600V solid copper.

Protection

Over voltage, Under voltage, over temp. and short circuit.

Safety:

UL 8750 & CSA 250.13-12

Hi-Pot Testing:

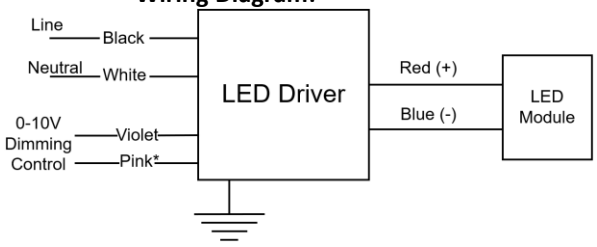
Line/Neutral to Ground MOV Installed
Minimum clamping of 420V

Ordering Information

Order Number	Description	Qty/Carton
D23CC90UNVT-F20KC	Standard Product	10
D23CC90UNVT-FR00C	Rated IP66	10

*Consult Factory for Tuning ordering information

Wiring Diagram:



* **Note:** The Gray has been changed to Pink for the negative 0-10V dimming control lead.

Application and operation performance specification information subject to change without notification.

Programmable Tuned Output Settings

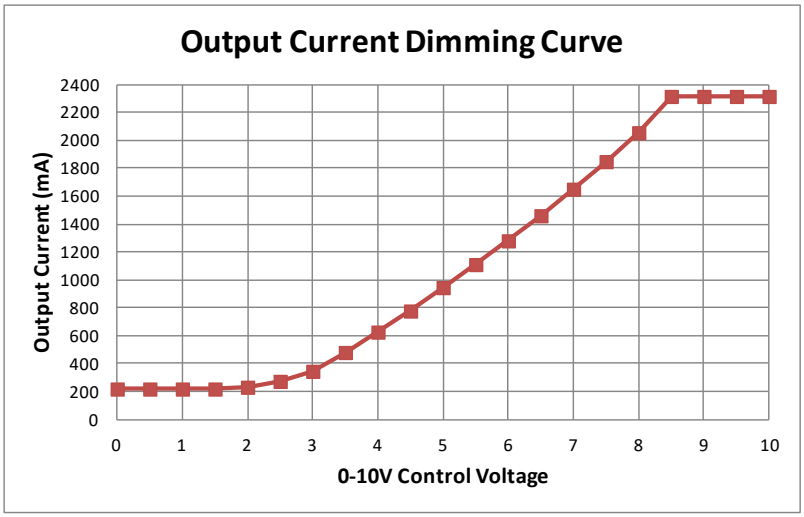
- This Everline LED Driver can be configured to set its current output to a selected fraction of their maximum rated design level. This function is called tuning (or also high-end trim) and it can be implemented with the LDTC01A using the Selector rotary switches. Tuning assignments are stored in driver memory and are not lost when power is removed. All factory produced drivers are tuned to maximum output unless otherwise noted on the label.
- Tuning SET Levels are listed in the table to the right. The SET Level corresponds to an associated Output Current value.
- Refer to application note EVD06 at www.unvlt.com for additional information.
- Actual tuned output current values will be within +/- 3% of current listed in the table

SET Value	Output Current (A)
100	2.300
99	2.262
98	2.224
97	2.188
96	2.151
95	2.116
94	2.081
93	2.047
92	2.013
91	1.980
90	1.947
89	1.915
88	1.884
87	1.853
86	1.822
85	1.792
84	1.763
83	1.734
82	1.705
81	1.677

SET Value	Output Current (A)
80	1.649
79	1.622
78	1.594
77	1.568
76	1.541
75	1.515
74	1.490
73	1.464
72	1.439
71	1.414
70	1.389
69	1.365
68	1.341
67	1.317
66	1.293
65	1.269
64	1.246
63	1.222
62	1.199
61	1.176

SET Value	Output Current (A)
60	1.153
59	1.130
58	1.107
57	1.084
56	1.061
55	1.038
54	1.015
53	0.993
52	0.970
51	0.947
50	0.924
49	0.901
48	0.877
47	0.854
46	0.831
45	0.807
44	0.783
43	0.759
42	0.735
41	0.711
40	0.683

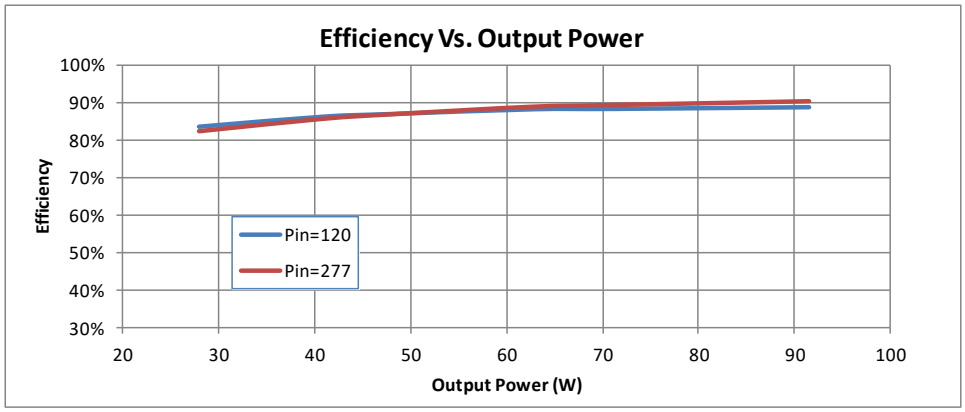
0-10V Dimming

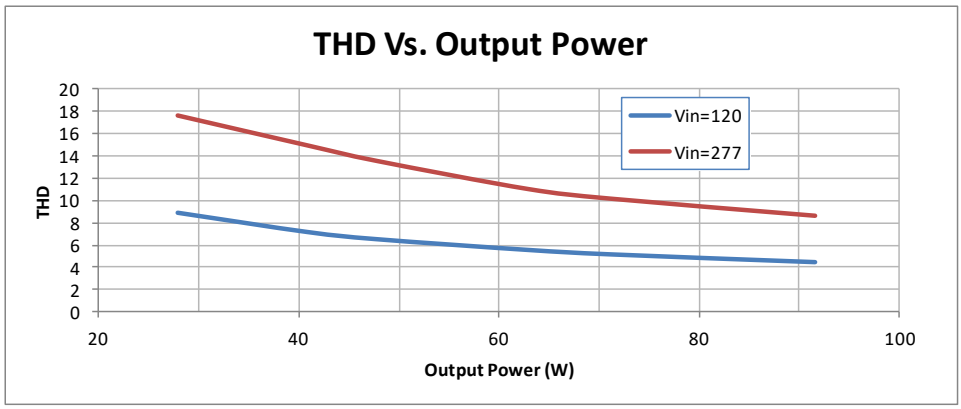


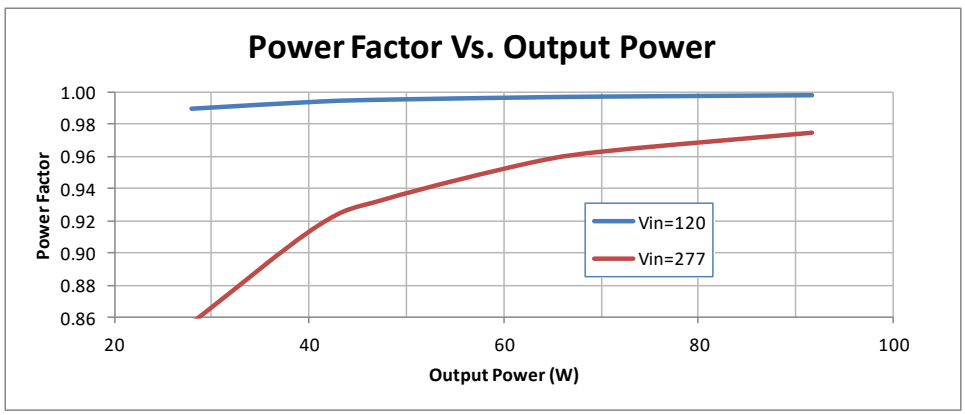
0-10V Analog Dimming Interface
Analog 0 to 10 vDC Voltage Control
-Use Violet (+) & Pink* (-) for connection to 0-10vDC.
- 10v = maximum output, 0v = minimum output
- Driver protected if line voltage is applied.
- Wiring Violet & Pink* together provides min. light output.
-Capping Violet & Pink* separately provides 100% light output.
- 0-10V interface can be wired as Class 1 or Class 2 Circuit.
• Driver will source a maximum of 250uA for control needs.

Performance: Efficiency, THD, & Power Factor

Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.

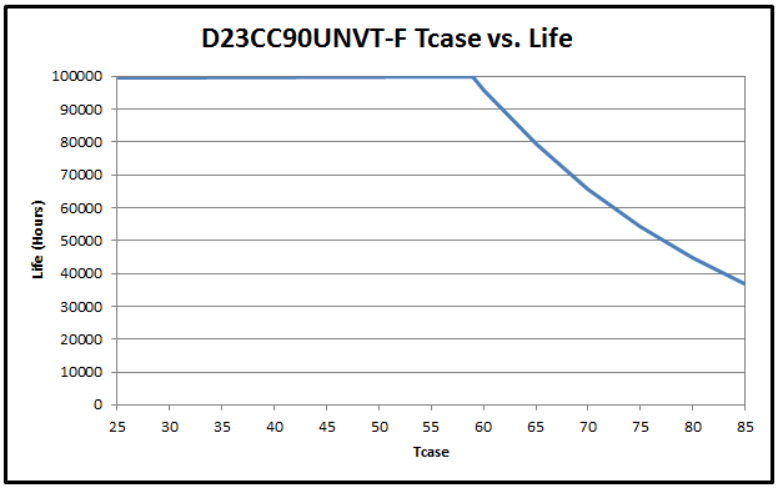






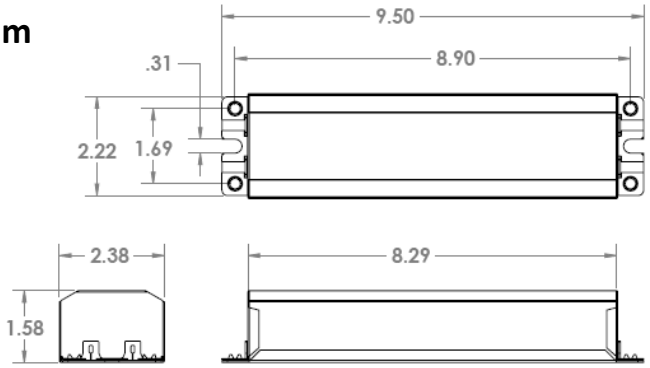
Output power based on maximum rated output current and varying load voltages.

Life vs. Driver Tcase

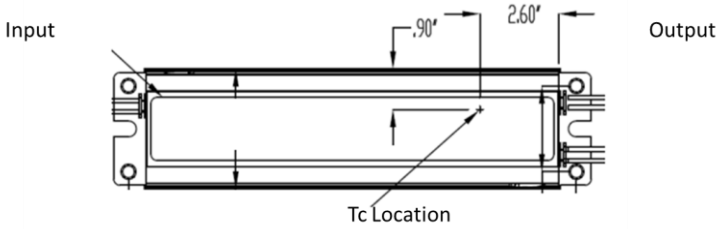


The Data curve provided predicts the LED Driver life based on the case temperature measured at the Tc location identified on the label or specification sheet. The Telecordia SR-332 standard is used to generate the prediction curves.

Dimensional Diagram



Tc Location



Conditions of Acceptability –

1. The drivers shall be installed in compliance with the applicable requirements of the end-product standard for, mounting, spacing, casualty and segregation
2. The maximum available output parameters were within the maximum allowable limits for Class 2, inherently limited as specified in the UL 1310 standard for Class 2 Power Units, and in accordance with the Canadian safety standard CSA C22.2 No. 223.
3. The driver is suitable for use in "DRY" or "DAMP" locations.
4. The driver was evaluated for use at a maximum case temperature in an elevated ambient of 57ºC and the maximum case temperature at (Tc) location – as identified on the label - should not exceed 85ºC when the driver is installed in the end-use application.
5. The primary (Black, White) and the output (Red, Blue) and control dimming 0-10V (Pink* and Violet) connection wires of the driver are R/C (AVLV2/8), 18 AWG, 90ºC. The suitability of the leads shall be determined in the end-use application.
6. The case must be grounded in the end use.
7. The driver measured 52Vdc during maximum output voltage test, that complies with the definition of Class 2 per the Canadian Electrical code. However, the output and the associated circuit/circuits cannot be user accessible based on maximum voltage restrictions for Class 2 circuits in the Canadian Electrical Code.
8. The Leakage Current measurements were not performed on this unit. Compliance with leakage current requirements shall be determined in the end-product standard." And, leakage current available from output leads shall be considered.

FCC Statement: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warranty:
Universal Lighting Technologies warrants to the purchaser that each power supply will be free from defects in material or workmanship for a period of 5 years from the date of manufacture when properly installed per instructions and under normal operating conditions of use. Call 1-800-225-5278 for technical assistance.