ADVANCE

by (signify

LED Driver

CertaDrive

CI032C067V048CCX1



Advance CertDrive Xcs LED drivers are a very cost effective option to enable CCT and Lumen selection fuctionality built into indoor fixtures, with proven reliability and providing otpimized flexibility and SKU rationalization across the value chain.

Specifications

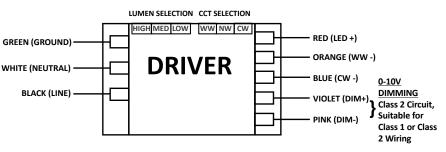
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Ring Wave, KV)	Envir. Protection Rating	Dimming	Dim- ming Range	Minimum Output Current (A)	Driver Type
120	32	28-48	0.47/0.59/0.67A	87	Life - 70°C	0.31	36.8 <209	<20% > 0.90	2.5KV for	UL Dry &	0-10V Analog Class 1	10% -	0.047	Constant	
277	02	Class 2 Output	0.4//0.03/0.0/A	88	UL - 80°C	0.14	00.0	2070	20.00	Ring Wave	Damp	and 2 Wiring	100%	0.047	Current

Enclosure

OUTPUT

	In. (mm)	Tolerance
Overall Length (A1)	11.02 (280)	± 0.5mm
Mounting Hole Distance (A2)	10.52 (267.3)	± 0.5mm
Mounting Hole Distance (A3)	10.85 (275.6)	± 0.5mm
Case Length (A4)	8.81 (223.8)	± 0.5mm
Case Width (B1)	1.18 (30.0)	± 0.5mm
Case Height (C1)	0.83 (21.0)	± 1.0mm
Mounting Hole Diameter (D1)	0.20 (5.08)	±0.3mm
Mounting Hole Diameter (D2)	0.30 (7.7)	±0.3mm

Wiring Diagram



WARNING

Install in accordance with national and local electrical codes.

The field-wiring leads or push-in terminals shall be fully enclosed.

USE ONLY WITHIN AN ENCLOSURE. DOIT ÊTRE INSTALLÉ DANS UNE ENCEINTE

Use 18 AWG Solid Copper Wire Rated >= 90 °C.

Strip Wire 3/8".

For Class 2 Wiring, Use 20 AWG-16 AWG.

GROUNDING

Driver case must be grounded.

NOM

Output Current Set

CCT Set

High (Default)	0.67A	 WW (Default)
Med	0.59A	NW
Low	0.47A	CW







Features

- CCT and Lumen selection 3 position Switch
 LUMEN (High/Mid/Low)
 CCT (WW/NW/CW)
- High Power Factor & Low THD for all positions
- 50,000 Hrs Lifetime
- Excellent Thermal Performance

Benefits

- Allows optimized Flexibility and SKU rationalization for multiple Indoor Genral lighting application fixtures
- Performance designed to meet efficiency standards
- Option to pair with Board LED board system
- Suitable for commercial indoor applications
- \cdot Enables long life luminaire designs

Application

- Indoor Linear troffers, wraps and suspended
- Office areas
- Educational Facilities
- Retail centers

Electrical Specifications

All the specifications are typical and at 25°C Tcase unless specified otherwise.

Product Data

Order Information					
Full Product Code	CI032C067V048CCX1 (Mid-Pack, 18pcs/Box), 12NC: 929002745913				
Line Frequency	50/60Hz				
Min. Mains Voltage Operational	108Vac				
Max. Mains Voltage Operational	305Vac				
Output Information					
Maximum Open Circuit Voltage	<=60Vdc				
Output Current Ripple (ripple = peak to average / average)	30% max @ max lout				
Output Current Tolerance (at maximum output current)	<8% ²				
Protections	Short Circuit, Open Circuit Protection for LED + and LED –				
Features					
0-10V Dimming Interface current	100uA-250uA				
Environment & Approbation					
Operating Ambient Temp. Range	-20°C to +40°C				
Max Case Temperature (Tcase)	70°C for Life & 80°C for UL Safety				
Agency Approbations	UL, CUL, NOM, FCC, Class P (UL, CUL)				
Electromagnetic Compliance	FCC Title 47 Part 15 Class A for 120Vac - 277Vac				
Audible Noise	<24dB Class A				
Weight	0.465Lbs / 0.210kgs				

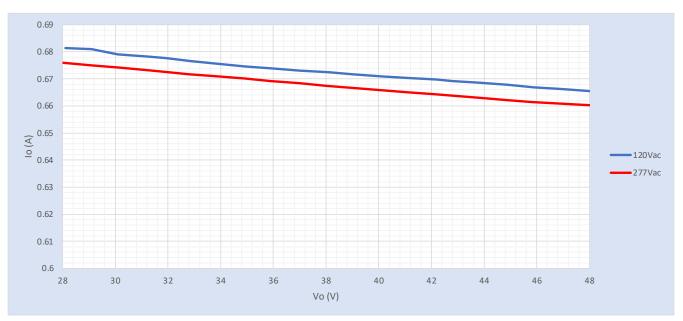
2. Note: power factor (PF) and total harmonic distortion (THD) may deviate under adverse mains voltage conditions outside nominal operation. Output current (I out) variation includes effects of line and load regulation, temperature variation and component tolerances.

^{1. 1.} Philips Advance CertaDrive XCS LED Drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTTF modeling.

Electrical Specifications

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lout Vs. Vout



Notes

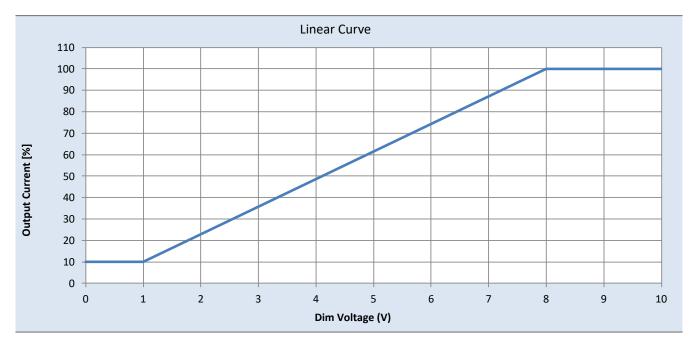
1. Factory default output current is 0.67A.

Electrical Specifications

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0-10V Dimming Interface

Dimming source current from the driver: 100-250µA Minimum Dim Level: 10% of lout Maximum output voltage on the dimming wires: 12V Leakage current of dimming leads 0.01mA, recommended max number of control circuits in parallel refer to Design-In Guide



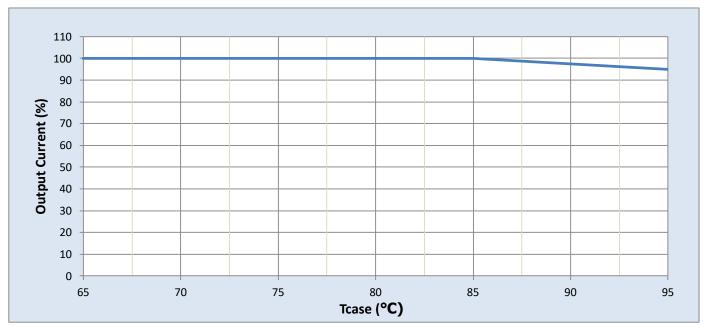
Approved Dimmer List

Manufacturer	Manufacturer Part Number
Lutron	Visit www.lutron.com/ advance for a list of dimmers (Mark VII) that will work with this driver
Leviton	IllumaTech IP7 series
Philips	Sunrise - SR1200ZTUNV

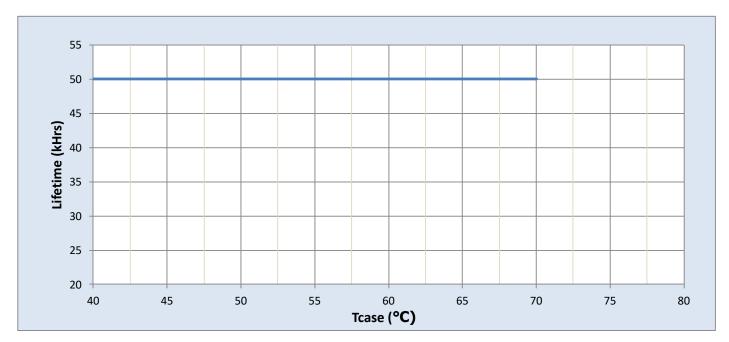
Electrical Specifications

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Output Current Vs. Driver Case Temperature



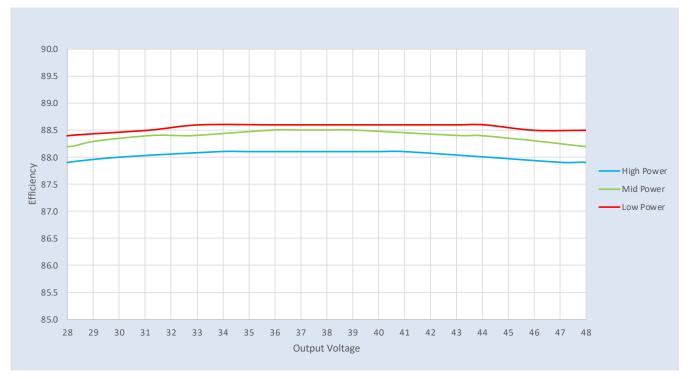
Note: There is $\pm 5^{\circ}$ C tolerance on the driver case temperature.



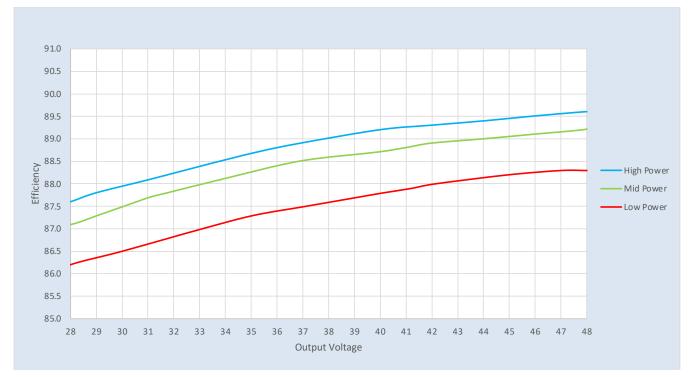
Performance Characteristics

Based on measurements on a typical sample at 70° C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency Vs. Output Voltage at 120Vac Input



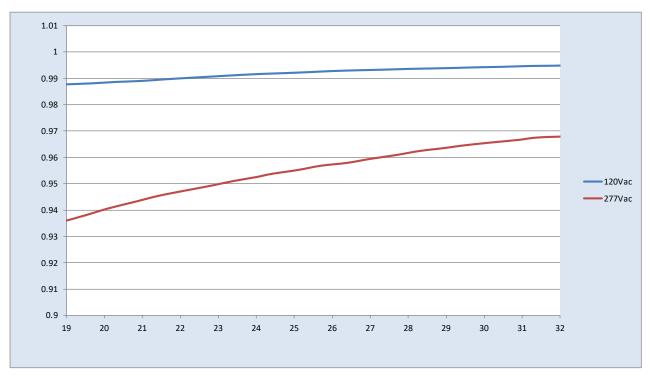




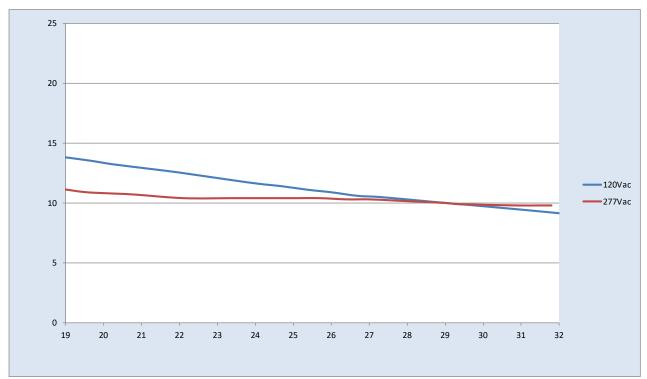
Performance Characteristics

Based on measurements on a typical sample at 80° C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

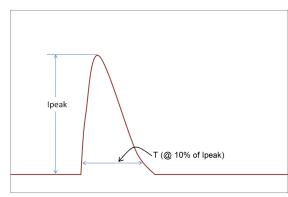
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)	
120 Vrms	9.2A	8.28µS	
277 Vrms	20.8A	9.08µS	

Inrush current is measured at peak of the corresponding line voltage. Source impedance per NEMA 410.

Lightning Surge Info

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)
100 kHz Ring Wave (w/t 30Ω)	2.5kV	2.5kV

Isolation

Isolation	Input	Output	0-10V	Enclosure
Input	NA	2xU+1kV	2xU+1kV	2xU+1kV
Output	2xU+1kV	NA	2xU+1kV	500
0-10V	2xU+1kV	2xU+1kV	NA	2xU+1kV
Enclosure	2xU+1kV	500	2xU+1kV	NA

U = Max input voltage

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