



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

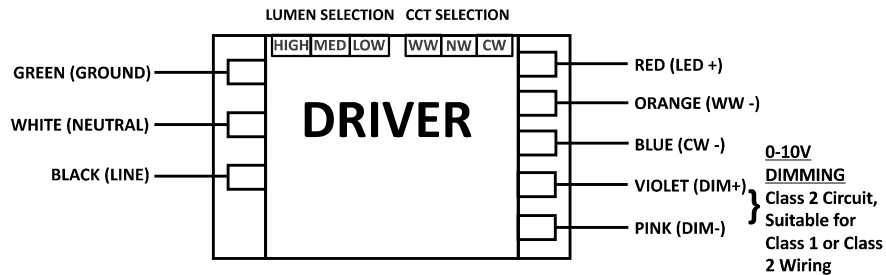
Specifications

| 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 | Dimming Range | Minimum Output Current (A) | Driver Type |
|---------------------|------------------|--------------------|--------------------|------------------------------------|--------------------------|-------------------|----------------------|--------------------|-------------------------|----------------------------------|--------------------------|-----------------------------------|---------------|----------------------------|------------------|
| 120 | 48 | 28-48 | 0.55/0.77/1.0A | 87 | Life - 70°C UL - 80°C | 0.46 | 55.2 | <20% | > 0.90 | 2.5KV for Ring Wave | UL Dry & Damp | 0-10V Analog Class 1 and 2 Wiring | 10% - 100% | 0.055 | Constant Current |
| 277 | | 88 | | 0.21 | | | | | | | | | | | |

Enclosure

| | 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 $\geq 90^\circ\text{C}$.

Strip Wire 3/8".

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

GROUNDING

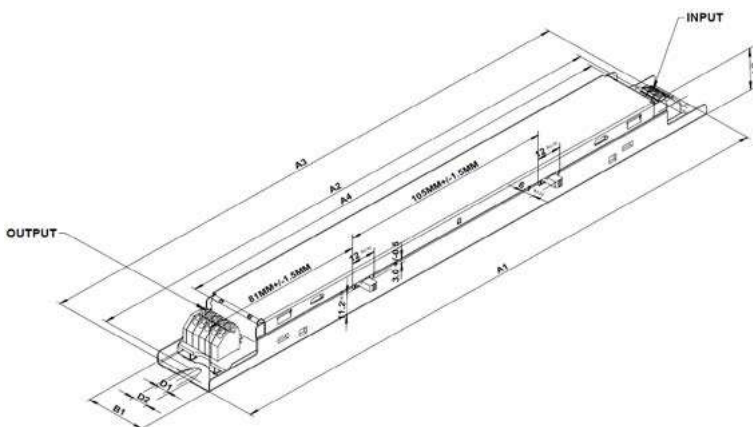
Driver case must be grounded.

Output Current Set

| | |
|----------------|-------|
| High (Default) | 1.0A |
| Med | 0.77A |
| Low | 0.55A |

CCT Set

| |
|--------------|
| WW (Default) |
| NW |
| CW |



CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

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
- 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 | CI048C100V048CCX2 (Mid-Pack, 18pcs/Box), 12NC: 929002757613 |
| 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 | 0.463Lbs / 0.210kgs |

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.
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.

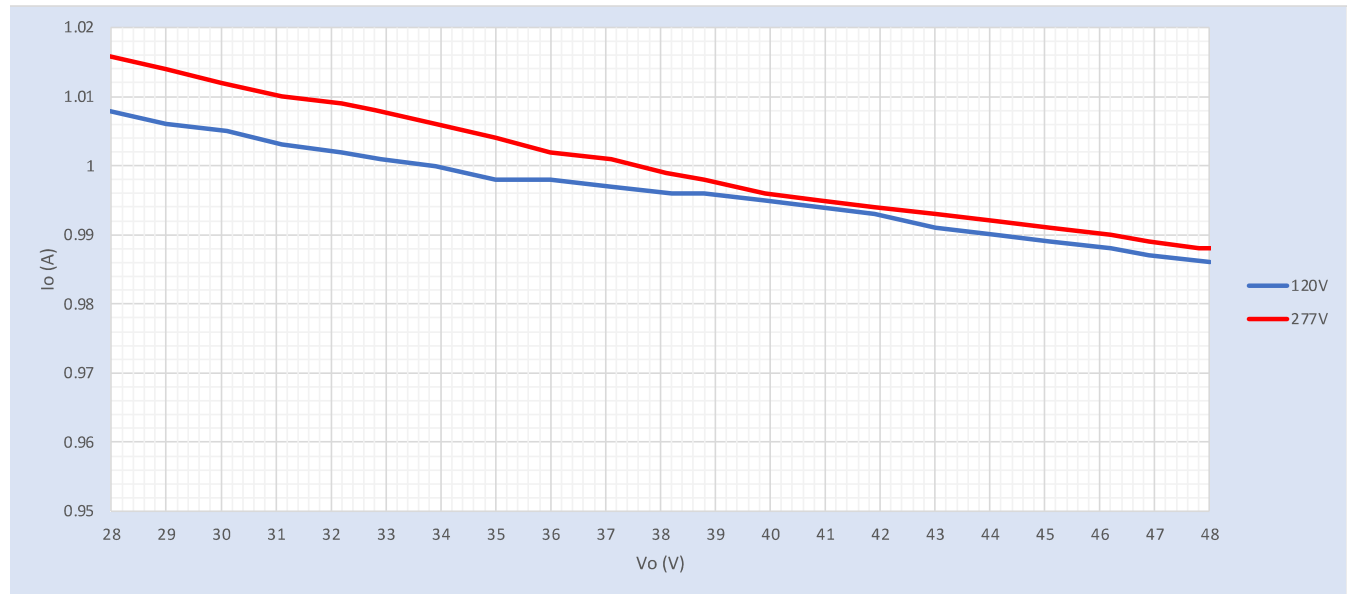
CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

Electrical Specifications

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

I_{out} Vs. V_{out}



Notes

1. Factory default output current is 1.0A.

CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

Electrical Specifications

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

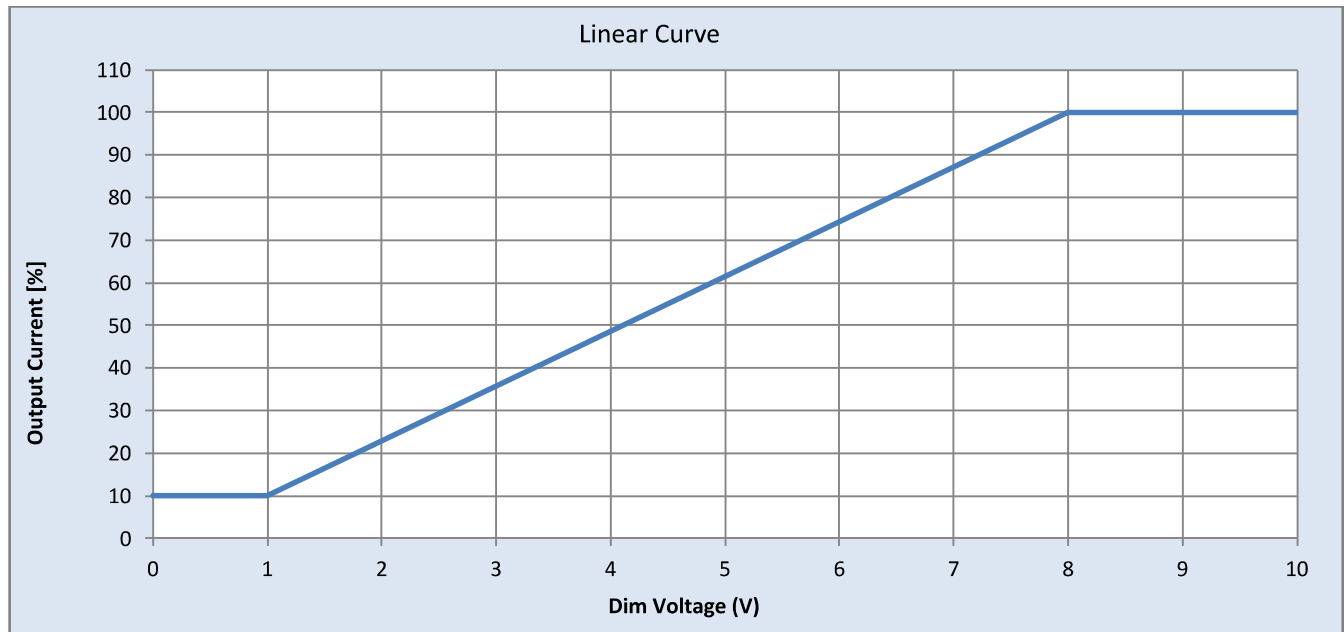
0-10V Dimming Interface

Dimming source current from the driver: 100-250µA

Minimum Dim Level: 10% of Iout

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 |

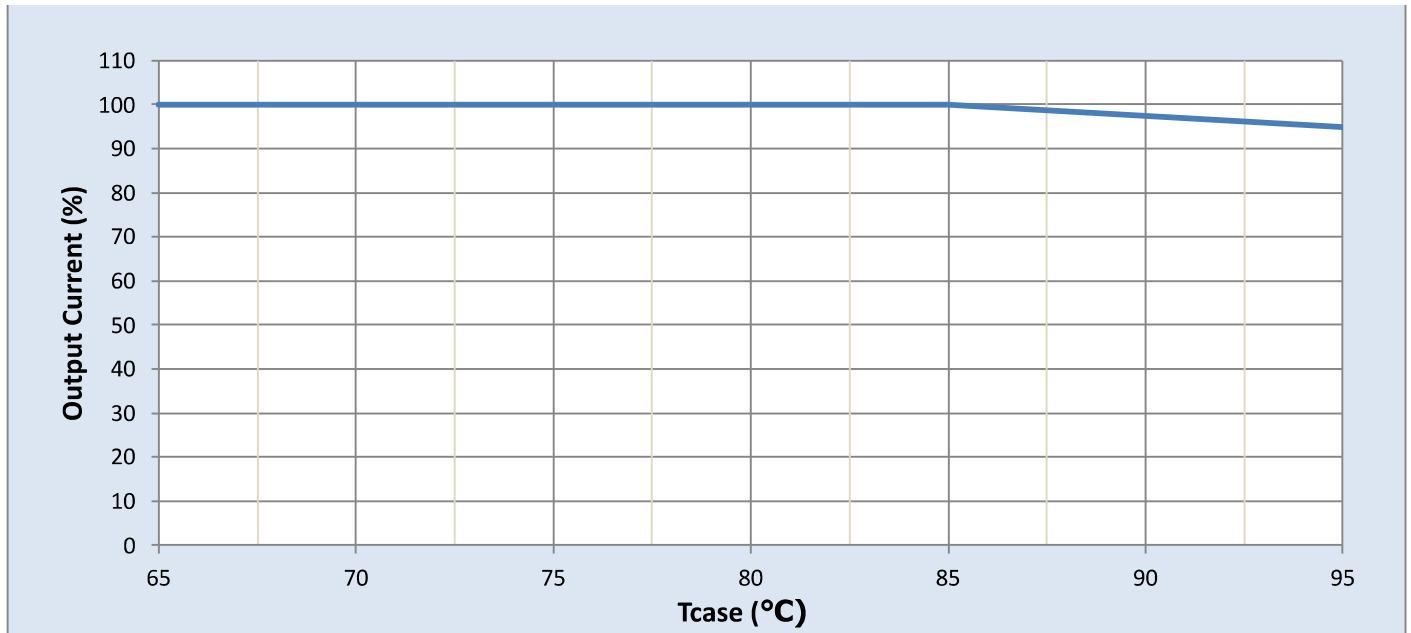
CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

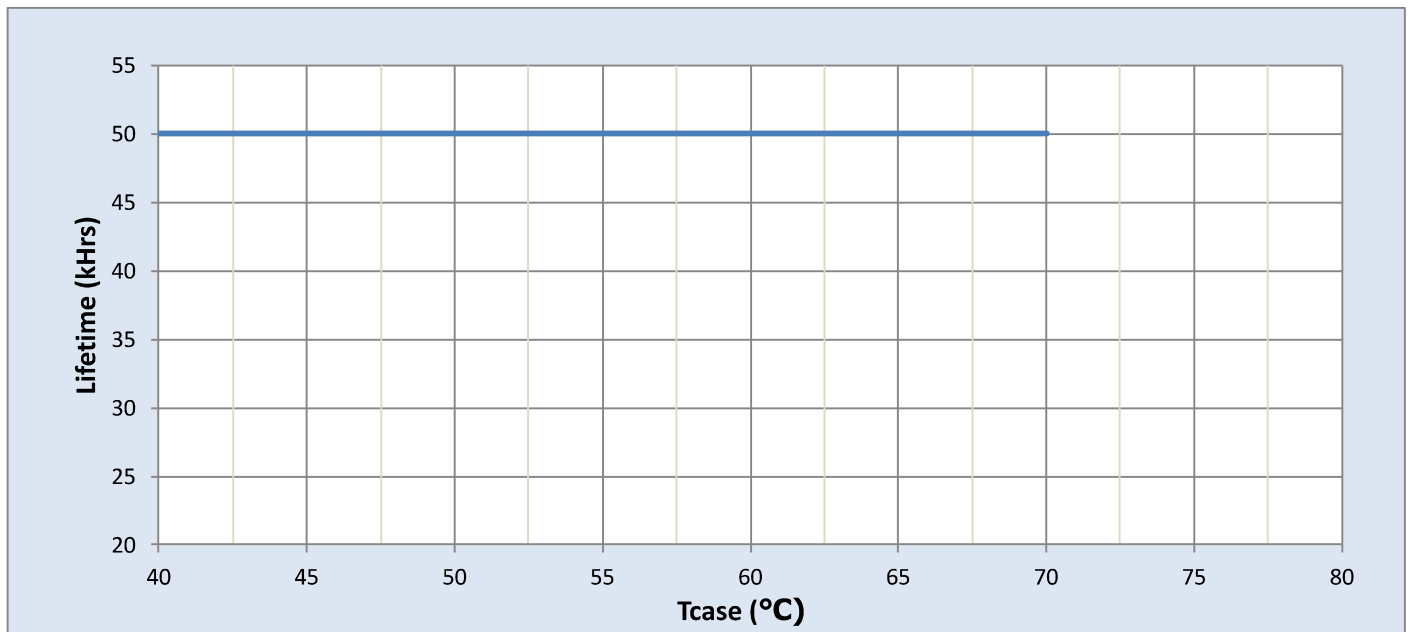
Electrical Specifications

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

Output Current Vs. Driver Case Temperature



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



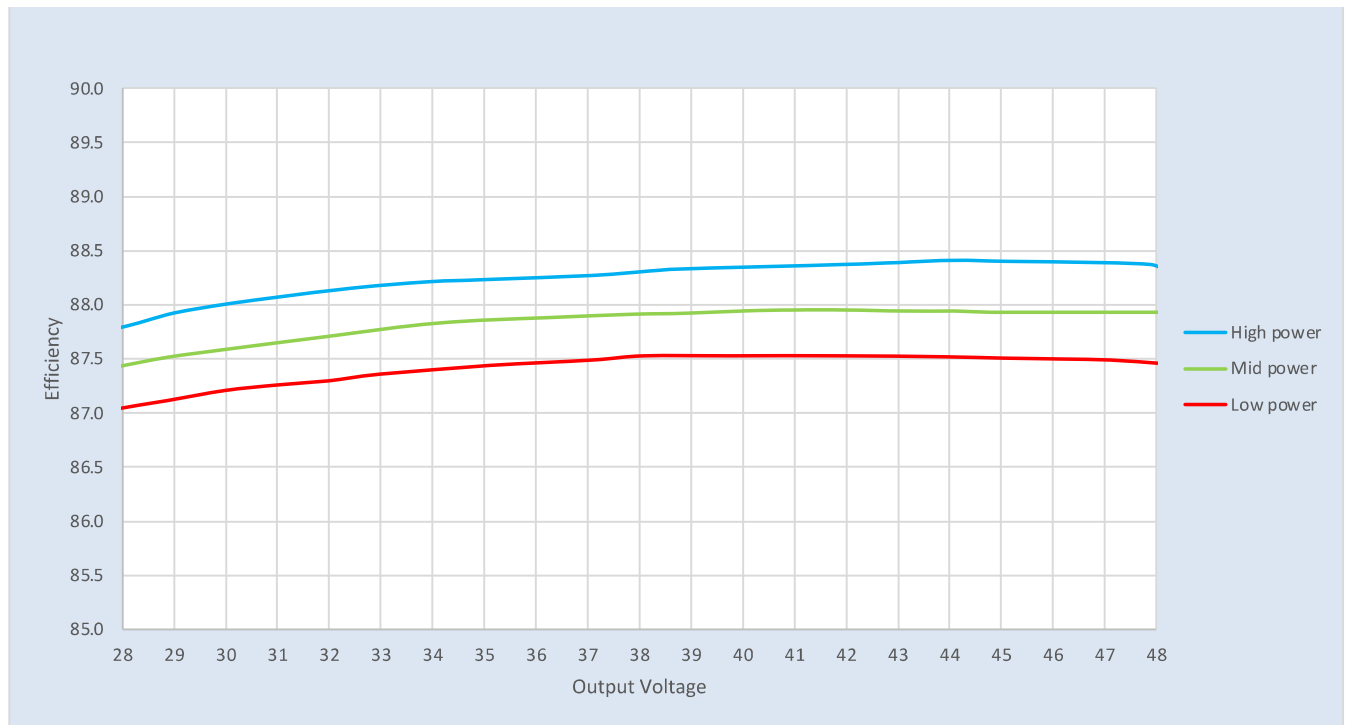
CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

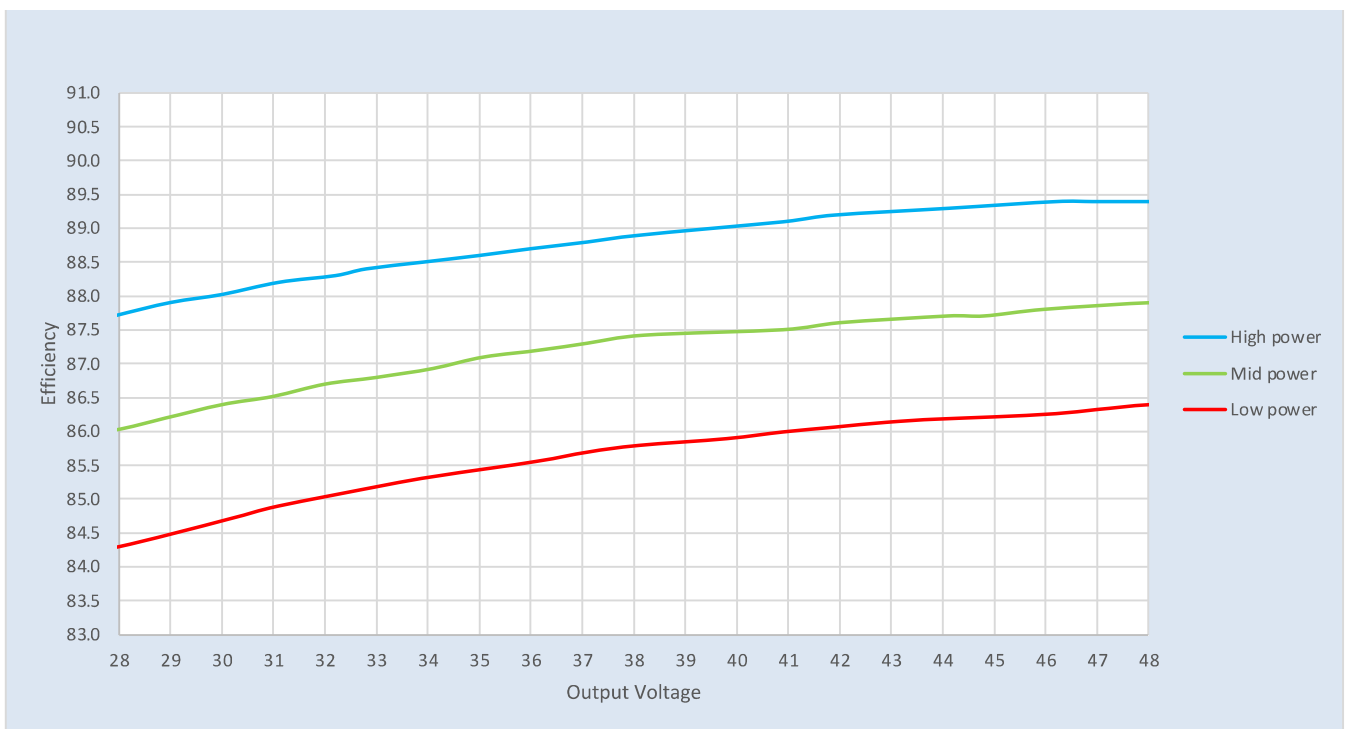
Performance Characteristics

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



Efficiency Vs. Output Voltage at 277Vac Input



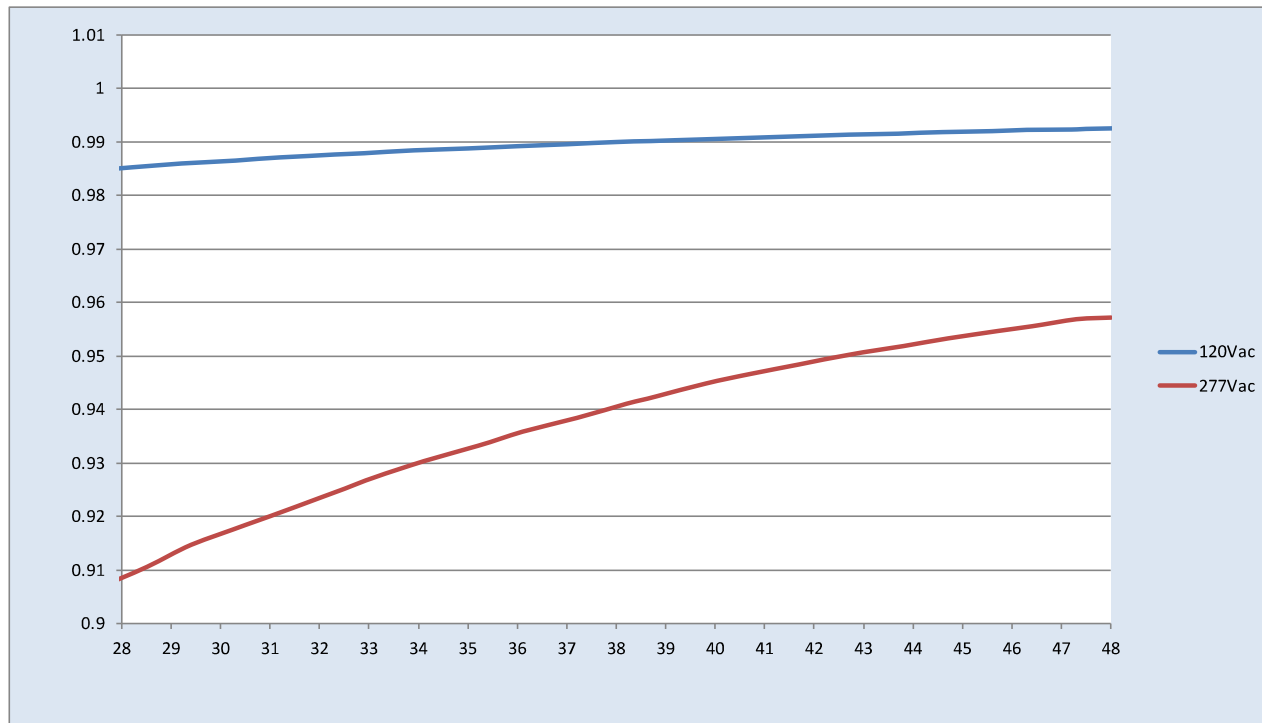
CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

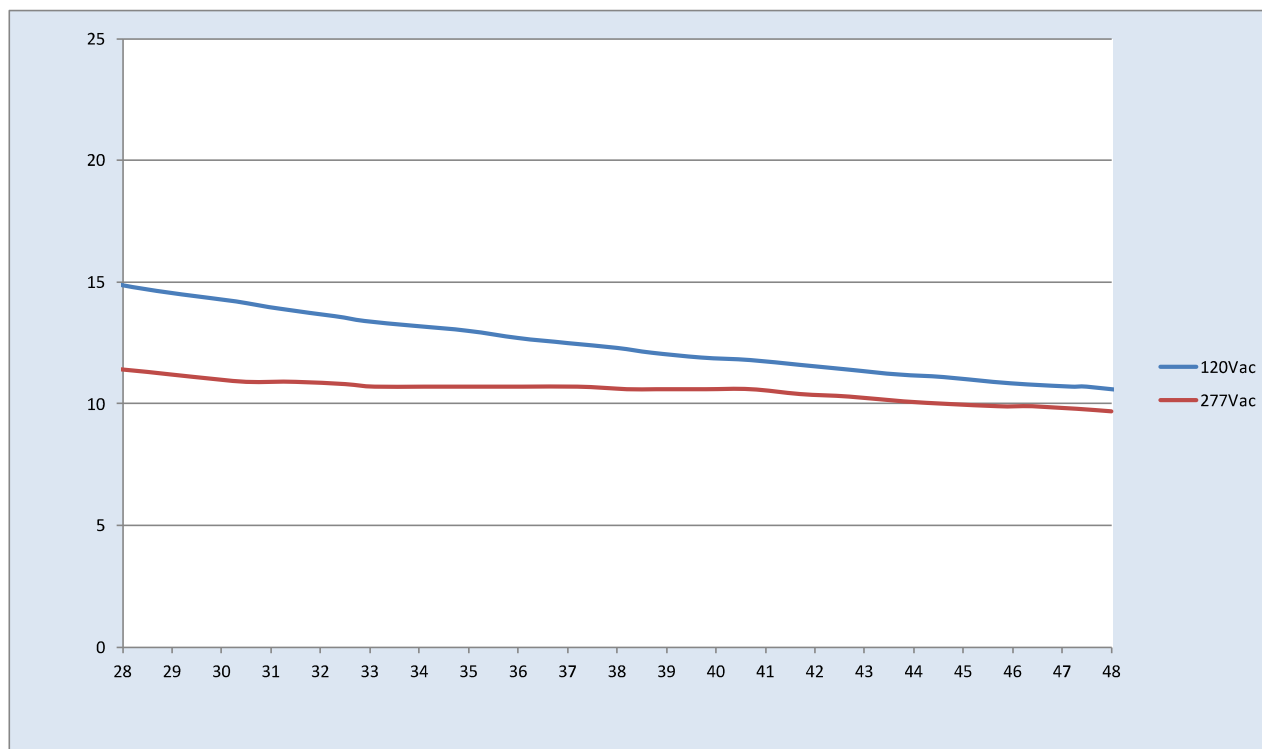
Performance Characteristics

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

Power Factor Vs. Output Power



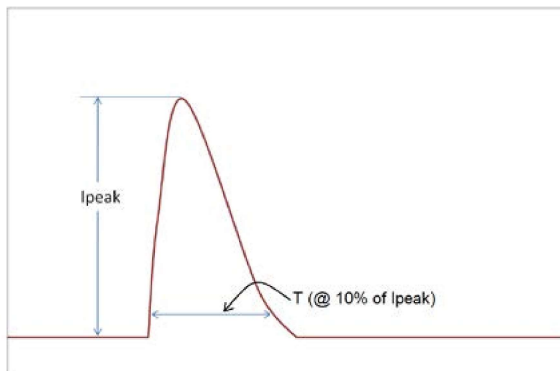
Total Harmonic Distortion (THD) Vs. Output Power



CertaDrive CI048C100V048CCX2

48W 1.0A 48V 0-10V 120-277V

Inrush Current Info



| V_{in} | I_{peak} | $T (@ 10\% \text{ of } I_{peak})$ |
|----------|------------|-----------------------------------|
| 120 Vrms | 11.7A | 7.86 μ S |
| 277 Vrms | 29.7A | 7.42 μ S |

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 30 Ω) | 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



© 2022 Signify Holding. All rights reserved. The information provided herein is subject to change, without notice. Signify does not give any representation or warranty as to the accuracy or completeness of the information included herein and shall not be liable for any action in reliance thereon. The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Signify.

Signify North America Corporation
400 Crossing Blvd, Suite 600
Bridgewater, NJ 08807
Telephone: 855-486-2216

Signify Canada Ltd.
281 Hillmount Road,
Markham, ON, Canada L6C 2S3
Telephone: 800-668-9008

All trademarks are owned by Signify Holding or their respective owners.