



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.

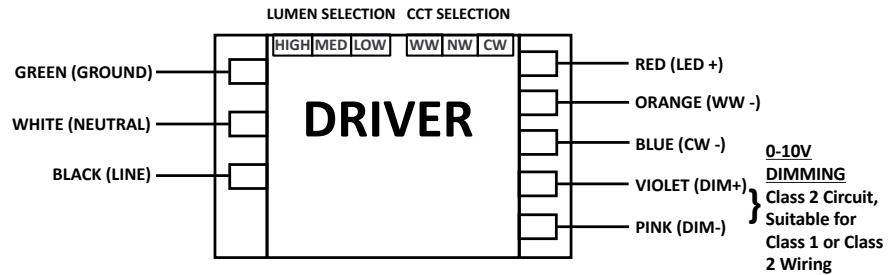
### Specifications

| 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                 | 38               | 28-48              | 0.45/0.62/0.8A     | 87                                 | Life - 70°C<br>UL - 80°C | 0.37              | 43.7                 | <20%               | >0.90                   | 2.5KV for Ring Wave              | UL Dry & Damp            | 0-10V Analog Class 1 and 2 Wiring | 10% - 100%    | 0.045                      | Constant Current |
| 277                 |                  | 88                 |                    | 0.17                               |                          |                   |                      |                    |                         |                                  |                          |                                   |               |                            |                  |

### 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

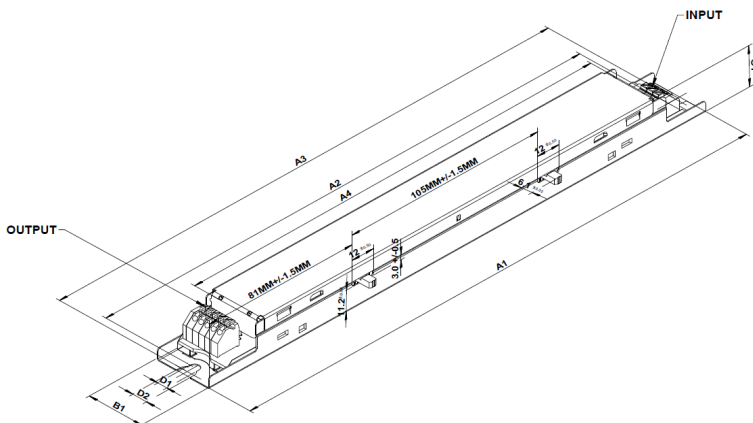
Driver case must be grounded.

### Output Current Set

|                |       |
|----------------|-------|
| High (Default) | 0.8A  |
| Med            | 0.62A |
| Low            | 0.45A |

### CCT Set

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



# CertaDrive CI038C080V048CCX1

38W 0.8A 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  | CI038C080V048CCX1 (Mid-Pack, 18pcs/Box), 12NC: 929002746013 |
| 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% <sup>2</sup>  |
| 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.

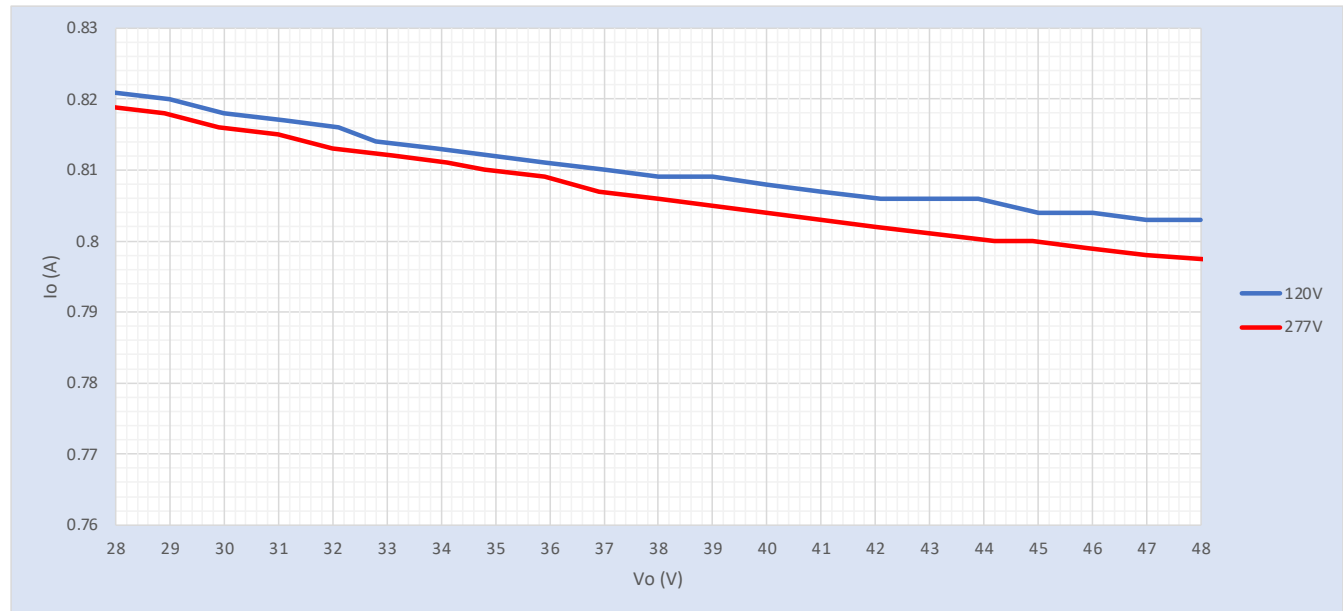
# CertaDrive CI038C080V048CCX1

38W 0.8A 48V 0-10V 120-277V

## Electrical Specifications

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### I<sub>out</sub> Vs. V<sub>out</sub>



## Notes

1. Factory default output current is 0.8A.

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## Electrical Specifications

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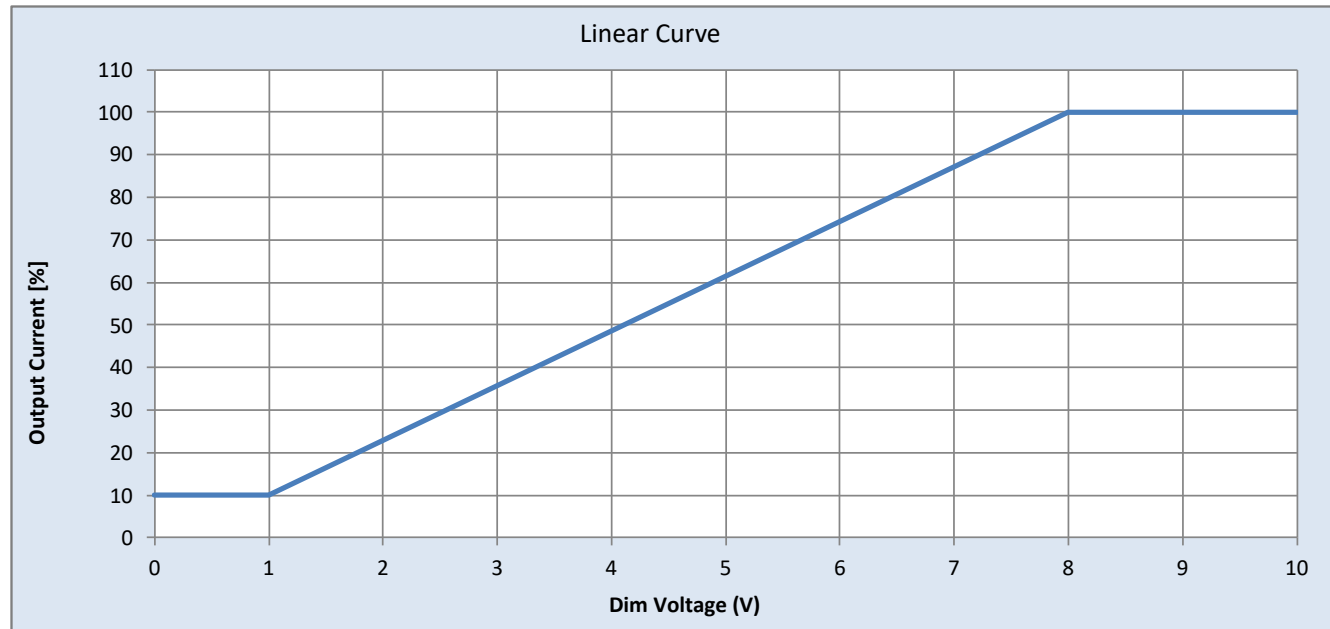
## 0-10V Dimming Interface

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 <a href="http://www.lutron.com/">www.lutron.com/</a> advance for a list of dimmers (Mark VII) that will work with this driver |
| Leviton      | IllumaTech IP7 series   |
| Philips      | Sunrise - SR1200ZTUNV   |

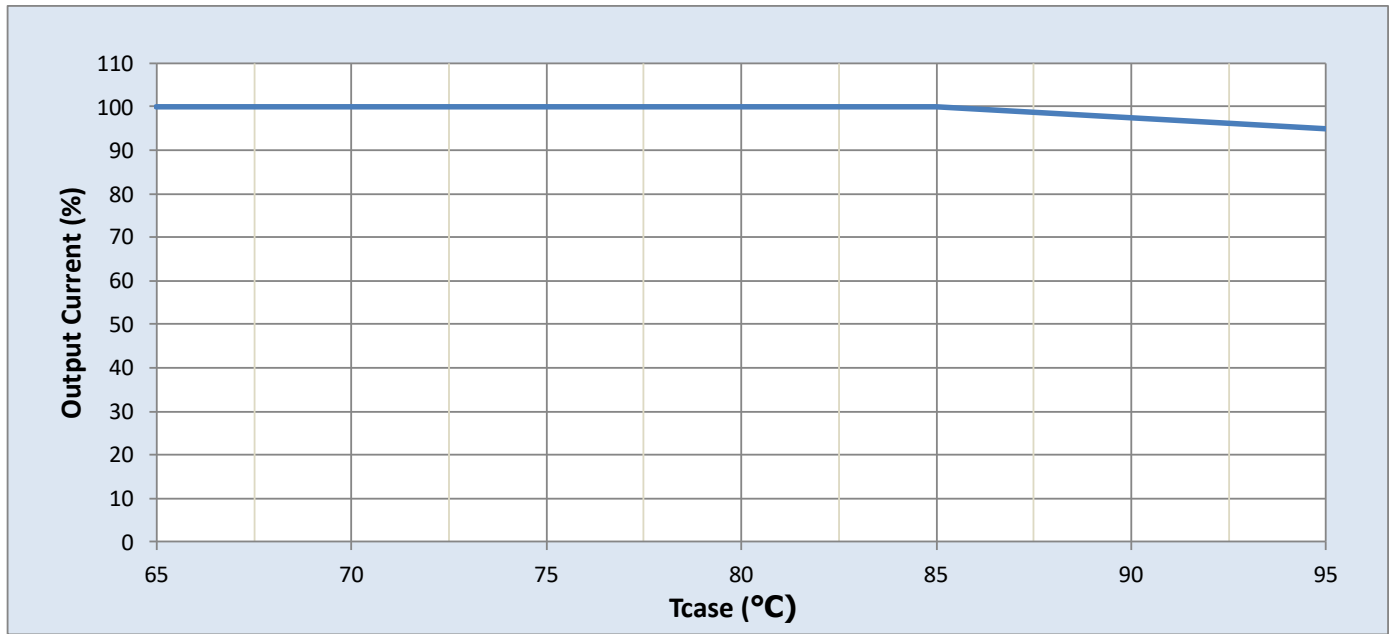
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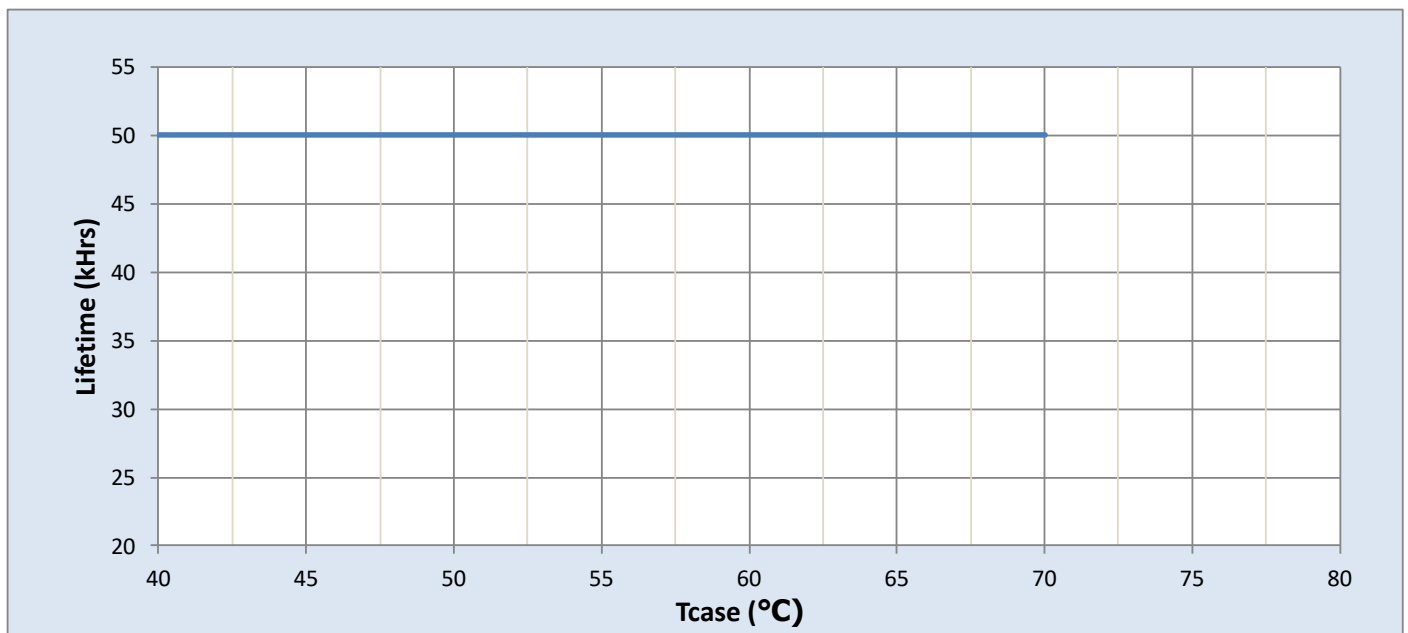
## Electrical Specifications

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## Output Current Vs. Driver Case Temperature



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



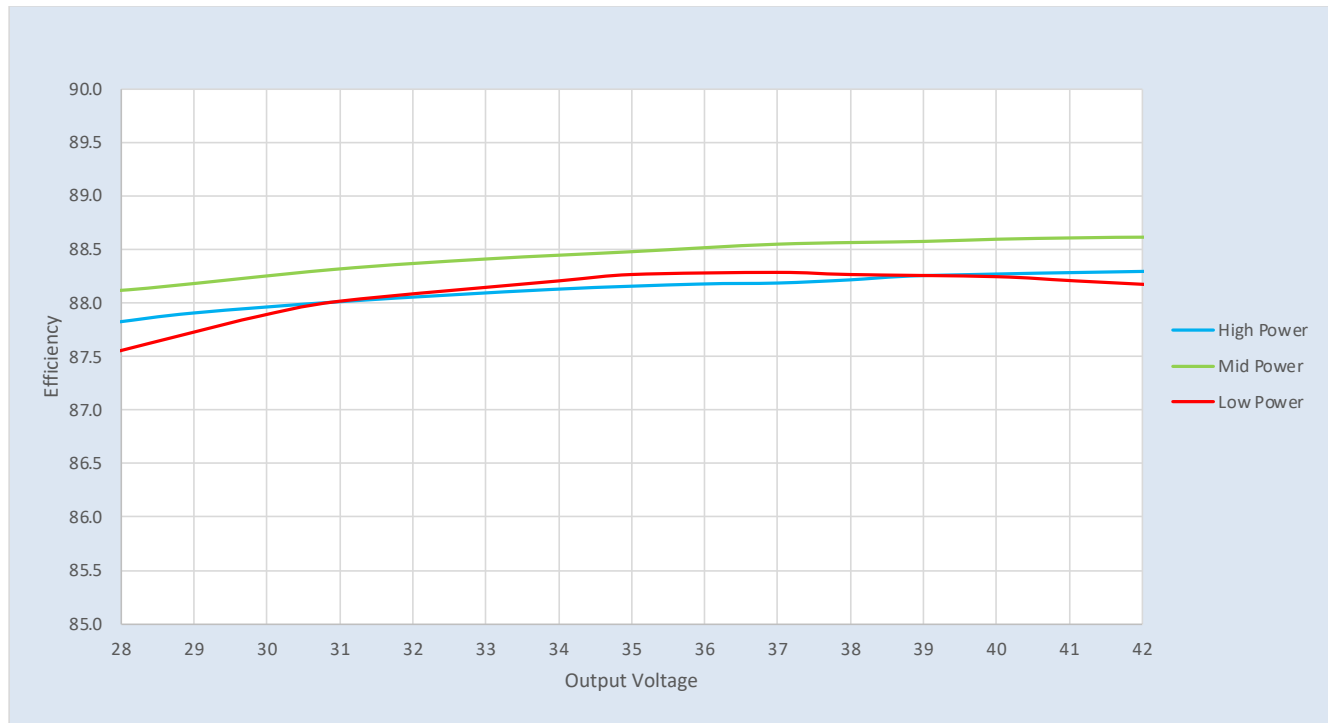
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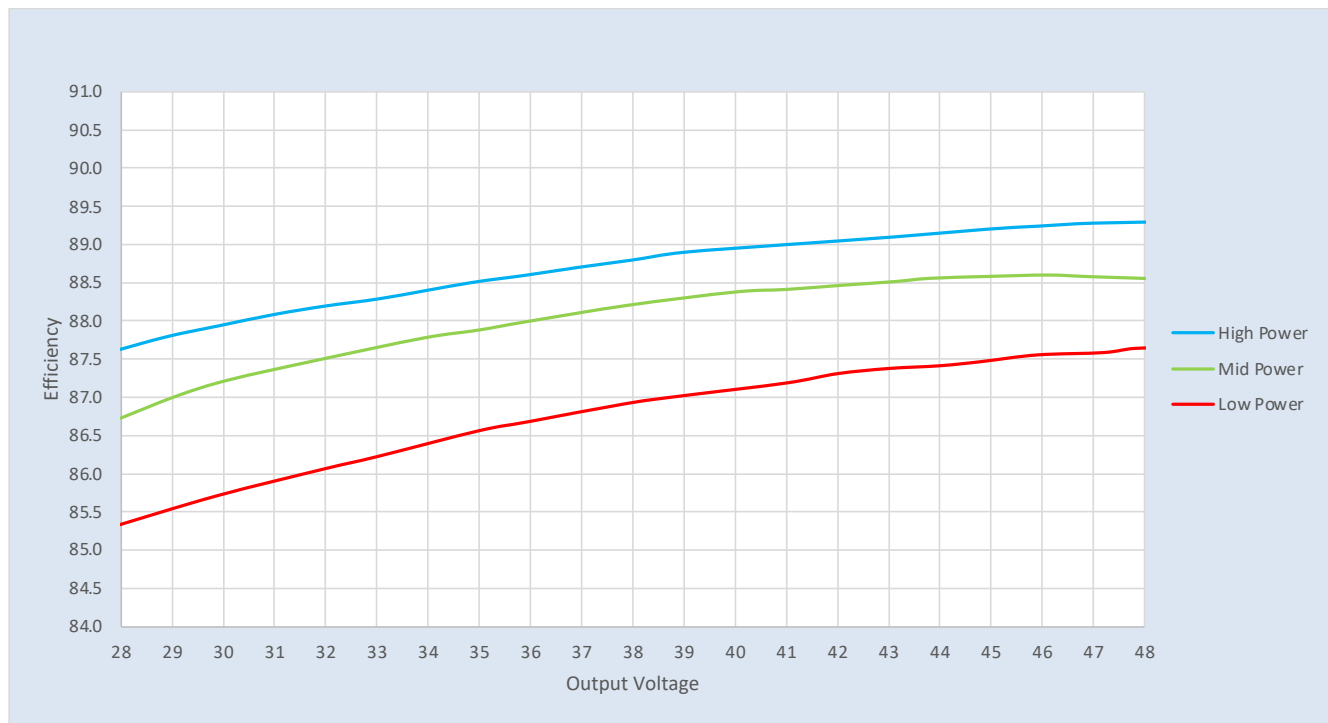
## Performance Characteristics

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 120 Vac Input



### Efficiency Vs. Output Voltage at 277 Vac Input



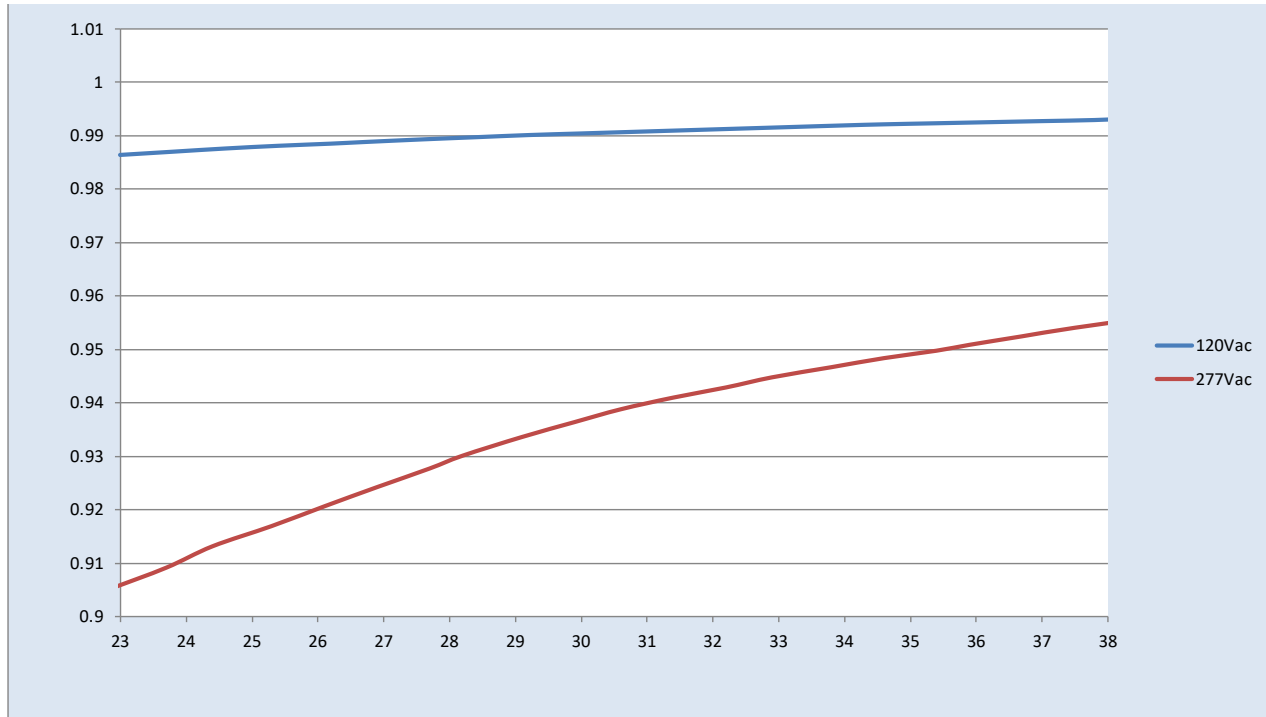
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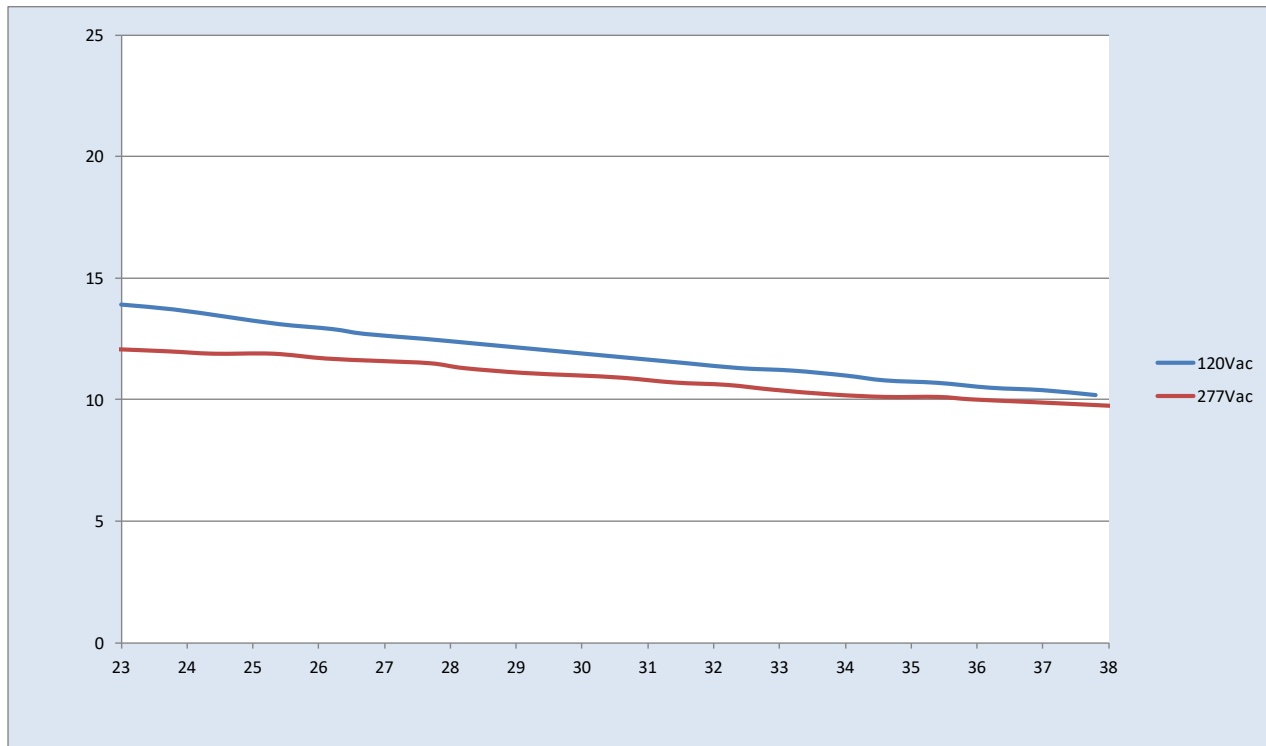
## Performance Characteristics

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



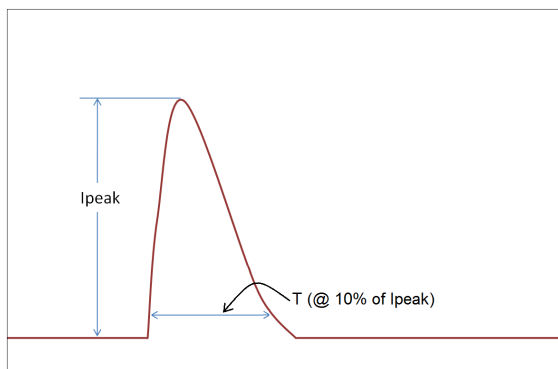
### Total Harmonic Distortion (THD) Vs. Output Power



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## Inrush Current Info



| $V_{in}$ | $I_{peak}$ | $T (@ 10\% \text{ of } I_{peak})$ |
|----------|------------|-----------------------------------|
| 120 Vrms | 8.5A       | 10.92 $\mu$ S                     |
| 277 Vrms | 21.3A      | 10.64 $\mu$ 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 $\Omega$ ) | 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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