XEL-030DEU Driver Product Family

DuoDim™ Commercial Series

10~30W LED Driver Family
0-10V & TRIAC/ELV, 5%/1% Dimming

 Ideal for Residential & Commercial Lighting
 Optimized for COB’s
 Indoor or Outdoor use
 Universal AC input (108~305Vac)
 DuoDim™ Technology (0-10V & TRIAC)
 (Optional TRIAC only, 1% Phase Dimming)
 Enables Energy Star & DLC compliant fixtures
 Turn on/off in less than 500 milliseconds
 Built-in Commercial grade Surge protection
 Type TL UL Driver
 Class A Noise Rating
 Integrated over voltage & open load, over current, short circuit & temperature protection
 Turn on & Full power operation between -30°C to +60°C ambient
 XenerQi Industry Leading 5 Year True Warranty™
 Class 2 power supply
 Complies to FCC CFR Title 47 Part 15

Typical Applications

Residential Lighting
Office Lighting
Commercial Lighting

Variants available:
- Side Exit Wires
- Thermally Enhanced Bottom Exit Wires
- Thermally Enhanced Side Exit Wires
- 30~40W DuoDim™

See product specific data pages for details.

Nominal Input Voltage (Vin) | Family Output Power Range (W) | Output Voltage Range (Vac) | Output Current Range (A) | Efficiency (%) | UL Max Case Temp. Tc (°C) | THD (%) | Power Factor | Dimming Method | Dimming Range (% of Iout)
120~277Vac | 8~30W | 24~32Vac | 26~42Vac | 0.30~0.70A | ≤ 88% (typical) | 90°C | < 20% | 0-10V & TRIAC/ELV | 5/1-100% (% of Iout)
Mechanical Drawings - Dimensions

(not to scale)

**See XEL-030DBU for Side Exit Wires (no studs).
**See XEL-030DDU & XEL-030DAU for thermally enhanced case types.

<table>
<thead>
<tr>
<th>Case</th>
<th>Wire Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>Wire Gauge</td>
</tr>
<tr>
<td>Steel</td>
<td>18AWG</td>
</tr>
<tr>
<td>Unit Weight</td>
<td>Wire Length</td>
</tr>
<tr>
<td>See variant pages</td>
<td>152.4mm (+3mm) / 6” (+0.12”)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Strip Length</td>
</tr>
<tr>
<td>126.5mm x 60.5mm x</td>
<td>9.5mm (+0.5mm) / 0.375” (+0.02”)</td>
</tr>
<tr>
<td>5.0” x 2.4” x 1.2”</td>
<td></td>
</tr>
<tr>
<td>Recommended Fixings</td>
<td>2x M6<em>8mm / 12-24</em>5/15” Fastners</td>
</tr>
</tbody>
</table>

Installation Guide

Mounting & Wiring Diagrams

WARNING: TO REDUCE THE RISK OF FAILURE / INJURY: DRIVER MUST BE INSTALLED IN LUMINARIE AND GROUNDED IN ACCORDANCE WITH THE LOCAL CODES. DRIVER CASE MUST BE ELECTRICALLY GROUNDED. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND OR DAMAGE TO THE SYSTEM.

Fix using 2 M6 screws for recommended mounting.

<table>
<thead>
<tr>
<th>Wires</th>
<th>Colors</th>
<th>Type</th>
<th>Wires</th>
<th>Colors</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>White (Neutral)</td>
<td>UL1015 AWG 18</td>
<td>Dimming</td>
<td>Purple (Dim +)</td>
<td>UL1015 AWG 18</td>
</tr>
<tr>
<td></td>
<td>Black (Line)</td>
<td>UL1015 AWG 18</td>
<td></td>
<td>Grey (Dim -)</td>
<td>UL1015 AWG 18</td>
</tr>
<tr>
<td>Output</td>
<td>Red (Positive)</td>
<td>UL1430 AWG 18</td>
<td></td>
<td>Gray (Dim +)</td>
<td>UL1430 AWG 18</td>
</tr>
<tr>
<td></td>
<td>Blue (Negative)</td>
<td>UL1430 AWG 18</td>
<td></td>
<td>Purple (Dim -)</td>
<td>UL1430 AWG 18</td>
</tr>
</tbody>
</table>

©2019 XenerQi. All rights reserved
### Specification Data

#### Output
- **DC Voltage Range**: 24 ~ 42 Vdc (full power 30 ~ 42dc)
- **Optimized Vf Range**: 36 ~ 38 Vdc (for 42V max) / 28 ~ 30 Vdc (for 32V max)
- **Rated Current Range**: ±5%
- **Rated Power**: ±5%
- **Line Regulation**: 0.30 ~ 0.70 A (not dimmed - see specific model pages)
- **Load Regulation**: 30W max
- **Turn On/Off Time**: < 500ms (at full load)

#### Input
- **Voltage Range**: 120 ~ 277Vac Nominal (108 ~ 305Vac Operational)
- **Frequency Range**: 47 ~ 63 Hz
- **Power Factor**: PFC > 0.9 at ≥ 75% of full power
- **THD**: THD < 20% at ≥ 75% of full power
- **Typical Inrush Current**: < TBC (per ANSI test method. Compliant with NEMA410-2015)

#### Dimming
- **Mode A (0-10V)**: DC Dimming control: 0-10Vdc (5%) Sink / Source
- **Mode B (Phase cut)**: TRIAC/ELV Phase cut dimming (1%)
- **TRIAC Support**: Forward Reverse Phase & ELV Dimmers
- **0-10V Source Current**: 260µA (Isolated)
- **Compatibility**: IEC Compliant

#### Protection
- **Short Circuit**: Auto-restart (after fault removed)
- **Over Voltage & Open Load**: Vout < 60V (Class-2)
- **Over Current**: Inherently limited over operational range
- **Over Temperature**: Current foldback at hotspot greater than 85°C (shut down at <100°C)

#### Environment
- **Working Temperature**: -30°C ~ 60°C ambient (Tcase rated for 90°C)
- **Working Humidity**: 20% ~ 90% RH non-condensing
- **UL Rating**: Dry / Damp location use
- **Storage Temperature**: -40°C ~ 85°C ambient
- **Storage Humidity**: 10% ~ 90% RH non-condensing
- **Impact Resistance**: 1 g/s
- **Vibration**: 3 ~ 50Hz 1g (for 30 minutes)
- **Operating Life**: 50,000 Hours at Full Load & Maximum Hotspot

#### Safety & EMC
- **Safety Standards**: UL8750, Class 2 (UL1310), Type TL rated
- **Noise Rating**: Class A (Less than 24dB measured at 1 meter) 2
- **EMI Conduction & Radiation**: Compliant with FCC CFR Title 47 Part 15 Class A at 120/277Vac & Class B at 120V
- **EMC Susceptibility**: Compliant with European CE requirements
- **Transient Immunity**: EN61000-4-3, EN61000-4-2, EN61000-4-4

---

1. Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is mounted on flat surface.
2. True Warranty refers to operation at full load and max hotspot temperature. For specific warranty details refer to XenerQi published warranty document.
3. Guaranteed only within nominal input range.
4. Critical parameters guaranteed over nominal input range.
5. Shutdown requires power cycle to recover.
6. Units optimized for steady state forward voltage as per “Optimized Vf Range” value in specification data, and for specific LED loads. LED loads available upon request.
7. Tested under two conditions: with & without dimmer connected.
8. Value listed is family maximum or minimum best case value as appropriate & can vary depending on part number.
9. Dimming performance may vary depending on brand and make of dimmer used as well as number of drivers connected to it.

---

Downloaded from Arrow.com.
**Available Models**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Output Current (mA)</th>
<th>Output Voltage Range (V)</th>
<th>Maximum Efficiency</th>
<th>Max Output (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XEL-030DEU-CX700-042-DNT01</td>
<td>700</td>
<td>26 ~ 42</td>
<td>87%</td>
<td>29.4W</td>
</tr>
<tr>
<td>XEL-030DEU-CX550-042-DNT01</td>
<td>550</td>
<td>26 ~ 42</td>
<td>87%</td>
<td>21.8W</td>
</tr>
<tr>
<td>XEL-030DEU-CX500-042-DNT01</td>
<td>500</td>
<td>26 ~ 42</td>
<td>84%</td>
<td>18.9W</td>
</tr>
<tr>
<td>XEL-030DEU-CX450-042-DNT01</td>
<td>450</td>
<td>26 ~ 42</td>
<td>85%</td>
<td>14.7W</td>
</tr>
<tr>
<td>XEL-030DEU-CX350-042-DNT01</td>
<td>350</td>
<td>26 ~ 42</td>
<td>84%</td>
<td>13.2W</td>
</tr>
<tr>
<td>XEL-030DEU-CX315-042-DNT01</td>
<td>315</td>
<td>26 ~ 42</td>
<td>85%</td>
<td>10.5W</td>
</tr>
<tr>
<td>XEL-030DEU-CX250-042-DNT01</td>
<td>250</td>
<td>26 ~ 42</td>
<td>84%</td>
<td></td>
</tr>
</tbody>
</table>

The information and specifications contained in this summary sheet are believed to be accurate and reliable at the time of publication, however XenerQi Limited assumes no responsibility for damages caused due to potential errors. Also, XenerQi Limited assumes no responsibility for the use of this product in such a way that it infringes on patents or other rights of third parties. No license is granted by implication or otherwise under any patent rights of XenerQi Limited. Specifications are subject to change without notice. Data values may have been rounded for marketing purposes.