



## Product Specification Sheet

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**Part Type** : **LED driver**

**Description** : **63W-1400mA Constant Current**  
**0-10V Dimmable**

**Part Number** : **ELD80-C1400-V45-UNV-D/R**

### 1. Input Requirement

**1.1 Input Voltage**

The nominal input voltage is 120-277VAC  
Operating Range: 108-305VAC

**1.2 Frequency**

The nominal input frequency is 50Hz/60Hz

**1.3 Current**

The maximum input current is 0.61 Amp at 120Vac at max output load of 1400mA.

**1.4 Efficiency**

The typical efficiency (watts out / watts in) is 86% @120V  
and 88% @277V with rated load.

**1.5 Power Factor**

@ 277VAC, >0.95  
@ 120VAC, >0.98

**1.6 Inrush Current**

120VAC @ 25 DEG C: <50Amp peak

**1.7 THD**

THD: < 20% @ 25oC 108-305VAC, full load (w/o Dimmer)

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## 2. Output Requirements

### 2.1 Output Current Setting

Set nominal current at this voltage.

| Output | Voltage   | Current | Tolerance |
|--------|-----------|---------|-----------|
| 1      | Max 45VDC | 1400mA  | +/- 5%    |

### 2.2 Output Voltage Range

Driver must work at these voltages.

| Output | Voltage  | Current | Tolerance |
|--------|----------|---------|-----------|
| 1      | 24-45VDC | 1400mA  | +/- 5%    |

### 2.3 Output Line Regulation

With output clamped to below set points, vary input from 108-305VAC.

| Output | Voltage Set Point | Current range |
|--------|-------------------|---------------|
| 1      | 45VDC             | 1330 – 1470mA |

### 2.4 Current Stability

+/- 1.5% maximum after 8 hours

### 2.5 Max Rated Output Load

| Output | Voltage | Current range |
|--------|---------|---------------|
| 1      | 45VDC   | 1400mA        |

### 2.6 Ripple Factor

Measured at max rated load and electronic load connecting to the output is ser as below :  $V_d=45V$   $R_d=0.08$

Ripple factor < 5% ( $I_{pk-pk}/2/I_{mean}$ ).

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**2.7 No Load Voltage**

Not to exceed 55VDC.

**2.8 Turn on Delay**

Measured @ 108-305VAC max rated load: < 1 seconds.

### **3. Protection Requirement**

**3.1 Short circuit protection:**

When operating under any line condition into a short circuit condition for an indefinite period of time, the power supply shall be self recovering when fault condition is removed.

**3.2 Over-current protection:**

When operating under any line condition into any over load condition for an indefinite period of time, the power supply shall be self recovering when fault condition is removed.

### **4. Environmental Conditions**

**4.1 Operating**

The power supply shall be capable of operating continuously in any mode without performance deterioration in the following environmental conditions:

**4.11 Ambient Temperature:**

-20 to 55 Deg C. 100% rated power at 55 Deg C.

**4.12 Case Temperature&Type TL**

Tref. :90°C

Tc.:68 °C @Ta.:40 Deg C

**4.13 Relative Humidity:**

5 to 95%, non-condensing

**4.14 Cooling:**

Convection

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#### **4.2 Non-Operating**

The power supply shall be capable of standing the following environmental conditions extended periods of time, without sustaining electrical or mechanical damage and subsequent operational deficiencies.

##### **4.2.1 Ambient Temperature:**

-40 to 85 Deg C.

#### **4.3 Shock & Vibration:**

MIL-STD-810G Shock Method 516.6 procedure IV and Vibration Method 514.6 Procedure I, Category 4

### **5. Reliability**

#### **5.1 MTBF**

>300,000hrs calculated to MIL-HDBK217F @ 25 DEG C. rated load.  
Ground Benign.

#### **5.2 Product Life**

>50000hours@ Tc= 90 Deg C, rated load.

### **6. EMC**

#### **6.1 Conducted:**

FCC Part 15 Class A

#### **6.2 Audible Noise:**

Class A sound rating not to exceed 24dBA (audible) when installed in fixture and such fixture is installed in its normal use. The measurement is to be made from a distance not less than 3 feet.

#### **6.3 ESD:**

IEC 61000-4-2 Level 2: 4KV Air and Contact.

#### **6.4 Input Transient Protection**

Power supply shall comply with IEEE C.62.41-1991, Class A operation. The line transient shall consist of seven strikes of a 100 kHz ring wave, 2.5 kV level for both common mode and differential mode.

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## 7. Safety

### 7.1 Agency Approvals

UL 8750-LED equipment for use in lighting product

UL1310-CLASS 2 Power units

CSA C22.2 No. 250.13-12-LED equipment for lighting applications

## 8. Dimmable

### 8.1 0-10V Dimming

0-10V Input Signal: 0-10V

Dimming Range: 10-100%

## 9. Mechanical

### 9.1 Materials

Metal case

All material to be ROHs compliant to Directive 2002/95/EC

Wires to be Stranded with UL approval

Input: Black & White : 500mm , 18AWG 105°C 600V Solid Line

Output: Red & Blue : 800mm , 20AWG 105°C 600V Solid Line

Dimming: Purple & Gray: 800mm , 18AWG 105°C 600V Solid Line

### 9.2 Size and shape:

