



## Product Specification Sheet

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

**Description** : **XX(25-50) W-YYYY(500-1400)mA**  
**Constant Current**

**Part Number** : **SLXX-IYYYY 120-277 W**

### 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 0.49 Amp at 120Vac at max output load of 50W

**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: <45Amp peak

**1.7 Total Harmonic Distortion**

@ 277VAC, <10%at max output load

**1.8 Leakage Current**

<0.5mA @277V with rated load between exposed conductive surfaces and the grounding pole of the supply circuit.

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# 1. Output Requirements

## 2.1 Output Current Setting

Set nominal current at this voltage.

Output	Voltage	Current	Tolerance
40W	Max 48VDC	1050mA	+/- 5%
50W	Max 55VDC	1000mA	+/- 5%
50W	Max 42VDC	1400mA	+/- 5%

## 2.2 Output Voltage Range

Driver must work at these voltages.

Output	Voltage	Current	Tolerance
40W	24-38VDC	1050mA	+/- 5%
50W	30-50VDC	1000mA	+/- 5%
50W	21-36VDC	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
40W	38VDC	998- 1102mA
50W	50VDC	950- 1050mA
50W	36VDC	1330 –1470mA

## 2.4 Current Stability

+/- 1.5% maximum after 8 hours

## 2.5 Max Rated Output Load

Output	Voltage	Current range
40W	38VDC	1050mA
50W	50VDC	1000mA
50W	36VDC	1400mA

## 2.6 Ripple Factor

Measured at max rated load and electronic load connecting to the output is set as below : $V_d=50V$   $R_d=0.08$

Ripple factor < 20% ( $I_{pk-pk}/2/I_{mean}$ ).

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**2.7 No Load Voltage**  
Not to exceed 60VDC.

**2.8 Turn on Delay**  
Measured @ 120VAC max rated load: <1second.

### **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 55Deg C. 100% rated power at 55Deg C.

**4.12 Case Temperature & Type TL**  
Tref. :85°C  
Tc.:58°C @ Ta.:40Deg C

**4.13 Relative Humidity:**  
5 to 95%, non-condensing

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**4.14 Cooling:**  
Convection

**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**

>5yrs @ 55Deg C. ambient, 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.

## 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. Mechanical

### 8.1 Materials

Metal case

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

Wires to be Stranded with UL approval

Input: Black & White : 300mm , 18AWG UL1316

Output: Red & Black : 300mm , 18AWG UL1316

### 8.2 Size and shape:

