# Product Specification Sheet

**Part Type : LED driver**

**Description : 96W-2300mA**

**Constant Current**

**0-10V Dimmable+12Vaux**

**Part Number : SIL 100-I2300 120-277 W D1S S**

## 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 1 Amp at 120Vac at max output load of 96W.

**1.4 Efficiency**

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

**1.5 Power Factor**

@ 277VAC, >0.90
@ 120VAC, >0.98

**1.6 Inrush Current**

120VAC @ 25 DEG C: <70Amp peak

**1.7 THD**

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

# 2. Output Requirements

## 2.1 Output Current Setting

Set nominal current at this voltage.

| Output | Voltage | Current | Tolerance |
|---|---|---|---|
| 96W | Max 42VDC | 2300mA | +/- 5% |
| 2.4W | 12VDC | 0-200mA | +/- 5% |

## 2.2 Output Voltage Range

Driver must work at these voltages.

| Output | Voltage | Current | Tolerance |
|---|---|---|---|
| 96W | 26-42VDC | 2300mA | +/- 5% |

## 2.3 Output Line Regulation

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

| Output | Voltage Set Point | Current range |
|---|---|---|
| 96W | 42VDC | 2185 – 2415mA |
| Output | Current Set Point | Voltage range |
| 2.4W | 200mA | 11.4 – 12.6V |

## 2.4 Current Stability

+/- 3% maximum after 8 hours

## 2.5 Ripple Factor

Measured at max rated load and electronic load connecting to the output is ser as below : Vd=42V Rd=0.08

Ripple factor<8% (Ipk-pk/2/Imean).

## 2.6 No Load Voltage

Not to exceed 60VDC.

## 2.7 Turn on Delay

Measured @ 120VAC max rated load: < 0.75 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

Class P

#### 4.13 Relative Humidity:

5 to 95%, non-condensing

#### 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

>50000hrs @ tc=90C. ambient, rated load.

## 6. EMC

### 6.1 Conducted&Radiate

FCC Part 15 Class B

### 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: 2KV 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.Dimmable

### 8.1 0-10V Dimming

0-10V Input Signal:1-10V(<1V Dim to off)
Dimming Range:10-100%

# 9. Mechanical

### 9.1 Materials

Metal case

All material to be ROHs compliant to Directive （EU）2015/863

Wires to be Stranded with UL approval

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

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

Output：Yellow & Brown :510mm , 18AWG 105℃ 600V（aux）

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