

# **Product Specification Sheet**

Part Type : LED Driver

**Description**: 80W-1950mA Constant Current

70W-1700mA Constant Current

60W-1450mA Constant Current

0-10V Dimmable+DIP Switch

Part Number : SIL80-I2000 120-277 W D1+D3 M(-B)(2000 1700 1450)

# 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 0.80 Amp at 120Vac at max output load of 80W.

## 1.4 Efficiency

When the maximum load current is 1950mA, the efficiency of 120V is 86%,The 277V efficiency is 87%

When the maximum load current is 1700mA, the efficiency of 120V is 86%, The 277V efficiency is 87%

When the maximum load current is 1450mA, the efficiency of 120V is 85%, The 277V efficiency is 86%

#### 1.5 Power Factor

@ 277VAC, >0.90

@ 120VAC, >0.98

#### 1.6 Inrush Current

120VAC @ 25 DEG C: <75Amp 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
80W	Max 41VDC	1950mA	+/- 5%
70W	Max 41VDC	1700mA	+/- 5%
60W	Max 41VDC	1450mA	+/- 5%

## 2.2 Output Voltage Range

Driver must work at these voltages.

Output	Voltage	Current	Tolerance
80W	26-41VDC	1950mA	+/- 5%
70W	26-41VDC	1700mA	+/- 5%
60W	26-41VDC	1450mA	+/- 5%

## 2.3 Output Line Regulation

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

Output	Voltage Set Point	Current range
80W	41VDC	1852-2048mA
70W	41VDC	1615-1785mA
60W	41VDC	1377-1523mA

## 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 see as below: Vd=41V Rd=0.1

Ripple factor<5% (lpk-pk/2/lmean).

### 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.62.41-2002. 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:0-10V Dimming Range:5-100%

# 9. Mechanical

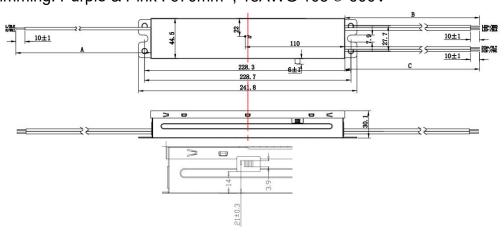
#### 9.1 Materials

Metal case

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

Wires to be Stranded with UL approval

Input: Black & White : 450mm , 18AWG 105  $^{\circ}$ C 600V Output: Red & Blue : 150mm , 20AWG 105  $^{\circ}$ C 600V Dimming: Purple & Pink : 670mm , 18AWG 105  $^{\circ}$ C 600V



The actual line length depends on the specific project