



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 : **SIL 80-I2000 120-277 W D1+D3 M**

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 0.8 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 86%,The 277V efficiency is 87%

1.5 Power Factor

@ 277VAC, >0.90

@ 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)

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 – 2047mA
70W	41VDC	1615 – 1785mA
60W	41VDC	1377 – 1522mA

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 : $V_d=41V$ $R_d=0.1$

Ripple factor $< 8\%$ ($I_{pk-pk}/2/I_{mean}$).

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:

-40 to 55 Deg C. 100% rated power at 55 Deg C.

4.12 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.

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- 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:0-10V
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 : 200mm , 18AWG 105°C 600V Solid Line
Output: Red & Blue : 560mm , 20AWG 105°C 600V Solid Line
Dimming: Purple & Pink:450mm , 18AWG 105°C 600V Solid Line

The actual line length depends on the specific project

