ARCATA ELECTRONICS INC.

Product Specification Sheet

Part Type : LED driver

Description: XX(35-80) W-YYYY(700-2100)mA Constant Current

0-10V Dimmable

Part Number : SL XX-IYYYY 120-277 W D1 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 0.8 Amp at 120Vac at max output load of 80W.

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, <15%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.

2. Output Requirements

2.1 Output Current Setting

Set nominal current at this voltage.

Output	Voltage	Current	Tolerance
35W	Max 50VDC	700mA	+/- 5%
48W	Max 40VDC	1200mA	+/- 5%
50W	Max 48VDC	1050mA	+/- 5%
50W	Max 36VDC	1400mA	+/- 5%
60W	Max 50VDC	1200mA	+/- 5%
70W	Max 50VDC	1400mA	+/- 5%
80W	Max 38VDC	2100mA	+/- 5%

2.2 Output Voltage Range

Driver must work at these voltages.

Output	Voltage	Current	Tolerance
35W	30-50VDC	700mA	+/- 5%
48W	20-40VDC	1200mA	+/- 5%
50W	30-48VDC	1050mA	+/- 5%
50W	21-36VDC	1400mA	+/- 5%
60W	30-50VDC	1200mA	+/- 5%
70W	30-50VDC	1400mA	+/- 5%
80W	21-38VDC	2100mA	+/- 5%

2.3 Output Line Regulation

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

Output	Voltage Set Point	Current range
35W	50VDC	665 – 735mA
48W	40VDC	1140 – 1260mA
50W	48VDC	997 – 1102mA
50W	36VDC	1130 – 1470mA
60W	50VDC	1140 – 1260mA
70W	50VDC	1130 – 1470mA
80W	38VDC	1995 – 2205mA

2.4 Current Stability

+/- 1.5% maximum after 8 hours

2.5 Max Rated Output Load

Output	Voltage	Current range
35W	50VDC	700mA
48W	40VDC	1200mA
50W	48VDC	1050mA
50W	36VDC	1400mA
60W	50VDC	1200mA
70W	50VDC	1400mA
80W	38VDC	2100mA

2.6 Ripple Factor

Measured at max rated load and electronic load connecting to the output is ser as below :Vd=50V Rd=0.08

Ripple factor<5% (Ipk-pk/2/Imean).

2.7 No Load Voltage

Not toexceed60VDC.

2.8 Turn on Delay

Measured @ 120VAC max rated load: <1seconds.

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. :90^{o}C

Tc.:68^{o}C @Ta.:40Deg C

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

>5yrs @ 55Deg C. ambient, rated load.

6. EMC

6.1 Conducted:

FCC Part 15Class 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

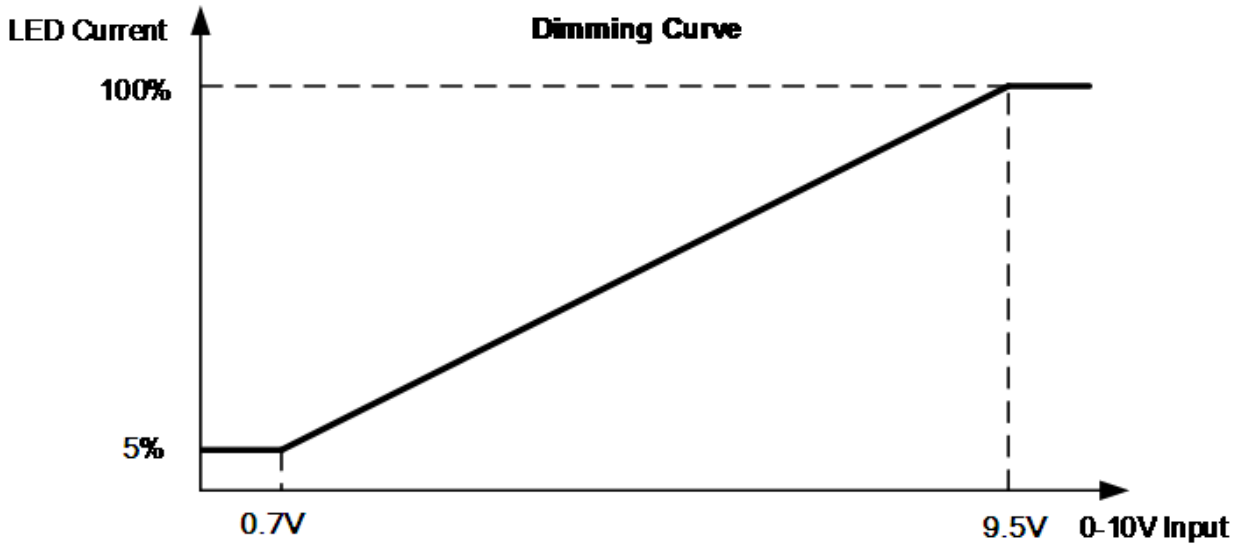
UL 8750-LED equipment for use in lighting product
UL1310-CLASS 2 Power units
CSA C22.2 No. 250.13-12-LED equipment for lighting applications

8. Dimmable

8.1 0-10V Dimming:

0-10V Input Signal: 0-10V
Dimming Range:5-100%

8.2 Dimming Curve:



9. Mechanical

9.1 Materials

Metal case

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

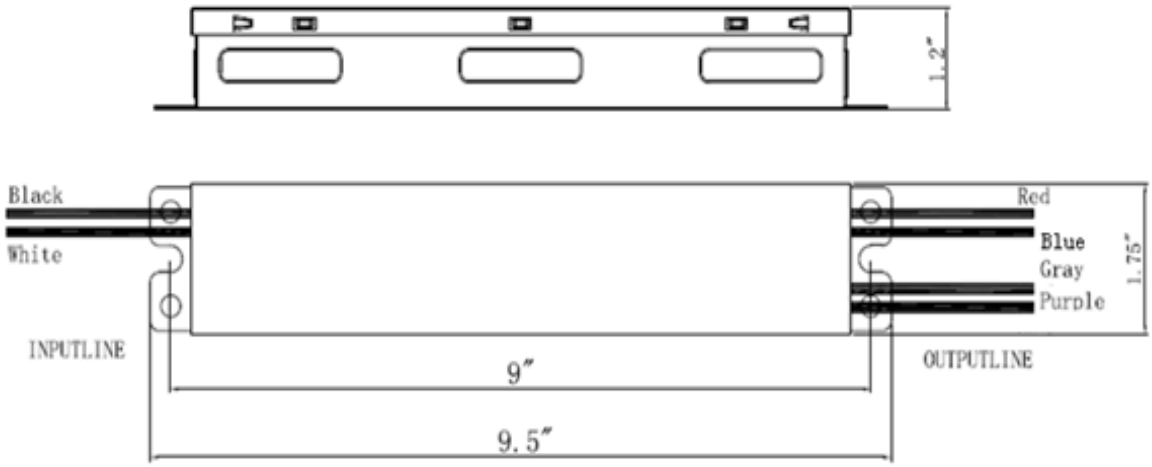
Wires to be Strandedwith UL approval

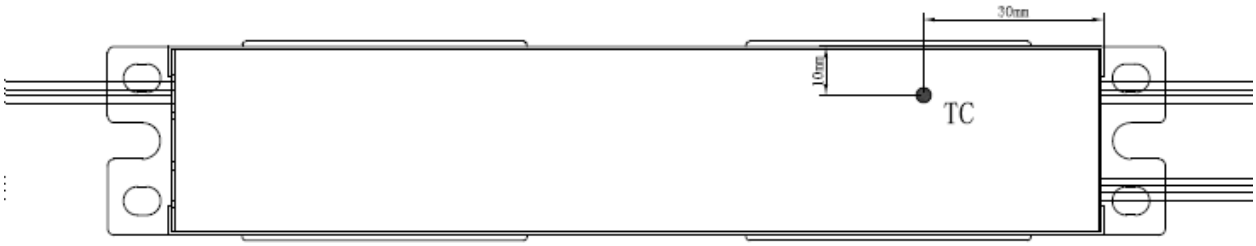
Input: Black & White: 300mm , 18AWG 105℃ 600VSolid Line

Output: Red &Blue: 300mm , 20AWG 105℃ 600VSolid Line

Dimming: Purple &Gray:260mm , 18AWG 105℃ 600VSolid Line

9.2 Size and shape:




30mm
10mm
TC