High Precision PSR APFC Isolated LED Driver

JI-S1560HI



# **JHA INSTRUMENT**

## 15-60W ISOLATED HPF LED DRIVER



#### Features:

- Wide input voltage range 100VAC to AC300VAC
- Withstand voltage 450VAC
- Highly accurate constant LED current (+/-3%)
- High Power Factor (PF)
- THD Less than 15%
- Cycle-by-Cycle Current Limit
- NO EMI/RFI Noise
- Isolated
- Excellent Line and Load Regulation
- High Efficiency around 90%
- Auto Recovery
- Excellent heat management
- Dusk to Dawn with light sensing (optional)

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### **Protections:**

- Short Circuit
- Over Temperature
- Under-voltage
- Surge > 4.7KVA (>10KVA optional)
- Over load
- Over-voltage auto-cut at 290VAC
- Open Circuit
- Transformer Saturation

### Rating:

<ul> <li>Input Voltage</li> </ul>	120-280VAC	<ul> <li>Output Voltage</li> </ul>	60VDC
<ul> <li>Input Power</li> </ul>	50W	Output Power	46W
Operating     Temperature	0-45 0C	Output Current	750mA

# Application:

Street light
Flood light
Ceiling light
Constant Curre

**Constant Current Power Supply** 

## **Test Report:**

Part No: - JI-S1560HI0750060-WH

SL No	AC Input (V)	AC Input (I)	Input (S)	Input (P)	PF	THD %	Output (V)	Output (mA)	Output (W)	EFF %
1	100	0.525	53.0	52.8	1.000	5	60.6	740	44.84	84.92
2	120	0.436	52.5	52.2	0.9961	6	60.6	740	44.84	85.90
3	140	0.376	52.7	52.4	0.9923	6	60.6	740	44.84	85.57
4	160	0.323	51.5	51.2	0.9883	7	60.5	750	45.37	88.61
5	180	0.284	51.0	50.4	0.9863	7	60.5	750	45.37	90.01
6	200	0.256	51.2	50.4	0.9804	7	60.5	750	45.37	90.01
7	220	0.235	51.7	50.4	0.9768	9	60.5	750	45.37	90.01
8	230	0.226	51.8	50.4	0.9749	9	60.5	750	45.37	90.01
9	240	0.218	52.2	50.6	0.9674	11	60.5	750	45.37	89.66
10	260	0.204	52.9	51.0	0.9603	14	60.5	750	45.37	88.96
11	280	0.193	53.5	51.2	0.9534	14	60.5	750	45.37	88.61
12	300	0.019	5.7	0.2	0.0357	25	00.0	000	00.00	00.00

<sup>\*\*</sup> Tested on 3030 1W 6V LED 10 LED in series. \*\* Auto Cut at 290VAC

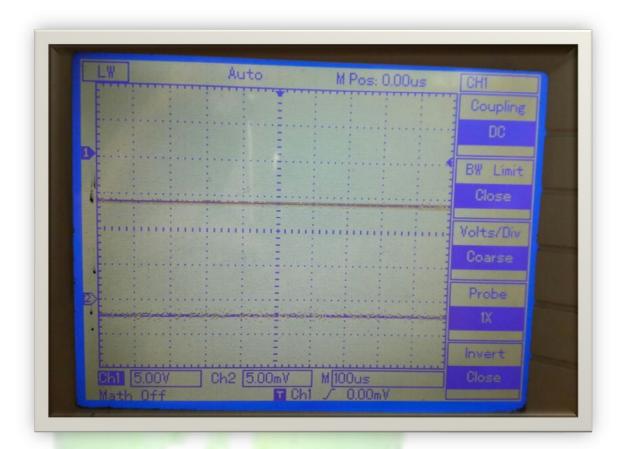
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<sup>\*\*</sup> Open circuit output voltage 60V DC

<sup>\*\*</sup> Efficiency and PF can be increased for narrow input range 160VAC-290VAC

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### **Output Waveform:**



### **Recommend Load Condition:**

With 3030 LED: 1W, 6V, 150mA

Total No of LED - 50 No of LED in series - 10 No of LED in Parallel - 5

With 5630/5730 LED: 0.5W, 3-3.4V, 150mA

Total No of LED - 100 No of LED in series - 20

No of LED in Parallel - 5

With 2835 LED: 0.5W, 3-3.4V, 150mA

Total No of LED - 100 No of LED in series - 20

No of LED in Parallel - 5

With 2835 LED: 1W, 9V, 100mA

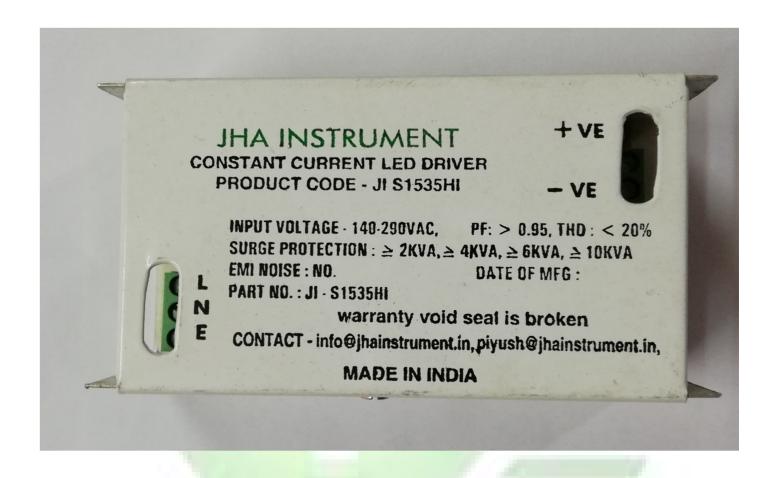
Total No of LED - 50 No of LED in series - 6 No of LED in Parallel - 8

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#### Dimension:

Length – 100mm X Width – 70mm X Hight 35mm



# Ordering Information:

Part No: JI-S1560HIAAAAVVV-WH/NH

Where

AAAA – Current in milliampere

VVV - Voltage in volt
WH - With Heat sink
NH - Without Heat sink

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