High Precision PSR APFC Isolated LED Driver

JI-S70180HI



# JHA INSTRUMENT

# 70-180 W ISOLATED HPF LED DRIVER



### Features:

- Wide input voltage range 120VAC to AC300VAC
- Withstand voltage 450VAC
- Highly accurate constant LED current (+/-3%)
- High Power Factor (PF)
- THD Less than 8%
- Cycle-by-Cycle Current Limit
- NO EMI/RFI Noise
- Isolated
- Excellent Line and Load Regulation
- High Efficiency around 90%
- Auto Recovery
- Three wire system for better grounding and shock proofing
- 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 270VAC
- 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>	100W	<ul> <li>Output Power</li> </ul>	90W
Operating     Temperature	0-45 0C	Output Current	1500mA

## Application:

Street light Flood light Ceiling light Constant Current Power Supply

#### **Test Report:**

Part No: - JI-S70180HI1500060-WH

SL	AC	AC	Input	Input	PF	THD	Output	Output	Output	EFF %
No	Input	Input	(S)	(P)		%	(V)	(mA)	(W)	
	(V)	(1)		,				,	,	
1	120	1.072	129.1	128.4	0.9967	5	61.6	1710	105.33	82.03
•	120	1.072	120.1	120.4	0.0007	O	01.0	1710	100.00	02.00
2	140	0.821	118.6	118.4	0.9945	5	61.6	1660	102.25	86.36
_		0.02	1 1010	1101	0.00.0			1000	102120	00.00
3	160	0.702	113.1	112.8	0.9936	6	61.5	1620	99.63	88.95
		002							00.00	33.33
4	180	0.594	108.6	107.8	0.9926	6	60.5	1570	94.98	88.60
5	200	0.530	105.5	104.6	0.9914	6	60.5	1540	93.17	89.07
6	220	0.466	103.4	102.2	0.9903	6	60.5	1510	91.35	89.38
7	230	0.432	101.3	100.0	0.9901	6	60.5	1510	91.35	91.35
8	240	0.431	103.4	101.8	0.9835	7	60.5	1510	91.35	90.44
9	260	0.404	104.2	102.2	0.9817	8	60.5	1510	91.35	89.55
						-				
10	280	0.382	107.2	104.8	0.9775	12	60.5	1510	91.35	87.83
11	300	0.019	5.7	0.4	0.0357	25	0.00	000	00.00	00.00

<sup>\*\*</sup> Tested on 3030 1W 6V LED 7 LED in series. \*\* Auto Cut at 295VAC

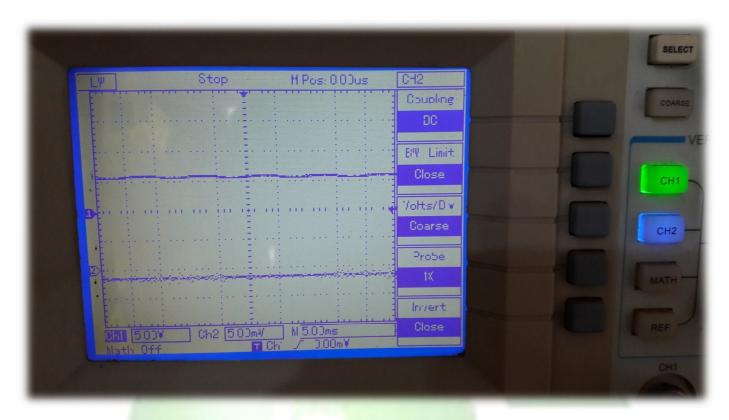
<sup>\*\*</sup> Open circuit output voltage 60V DC

<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 - 100

No of LED in series – 10

No of LED in Parallel - 10

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

Total No of LED – 200

No of LED in series – 20

No of LED in Parallel - 10

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

Total No of LED - 200

No of LED in series – 20

No of LED in Parallel - 10

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

Total No of LED – 102

No of LED in series - 6

No of LED in Parallel - 17

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#### Dimension:

Length – 121mm



Hight – 38mm

Width - 82mm

## Ordering Information:

Part No: JI-S70180HIAAAAVVV-WH/NH

Where

AAAA – Current in milliampere

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

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