High Precision PSR APFC Isolated LED Driver

JI-S3070HI



JHA INSTRUMENT

80W 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 5%
- Cycle-by-Cycle Current Limit
- NO EMI/RFI Noise
- Isolated
- Excellent Line and Load Regulation
- High Efficiency around 90%

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• Auto Recovery

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- Three wire system for better grounding and shock proofing
- Excellent heat management
- Dusk to Dawn with light sensing (optional)

Protections:

- Short Circuit
- Over Temperature
- Under-voltage
- Surge > 4.7KVA (>10KVA optional)
- Over load
- Over-voltage auto-cut at 295VAC
- Open Circuit
- Transformer Saturation

Rating:

Input Voltage	140-295VAC	Output Voltage	48VDC
 Input Power 	82W	 Output Power 	72W
 Operating 	0-45 0C	Output Current	1.5A
Temperature			

Application:

Street light Flood light

Ceiling light

Constant Current Power Supply

Test Report:

SL No	AC Input (V)	AC Input (I)	Input (S)	Input (P)	PF	THD %	Output (V)	Output (mA)	Output (W)	EFF %
1	140	0.867	117.4	114.6	0.9923	6	50.4	1.84	92.73	81
2	160	0.641	103.2	101.4	0.9883	7	49.4	1.66	82.00	81
3	180	0.519	94.0	92.0	0.9863	7	49.1	1.54	75.61	82
4	200	0.412	86.4	84.4	0.9804	7	49.1	1.51	74.14	88
5	220	0.390	85.1	83.2	0.9768	9	48.7	1.48	72.02	87
6	230	0.366	84.7	82.6	0.9749	9	48.6	1.47	71.44	86
7	240	0.339	84.6	82.4	0.9774	11	48.6	1.46	70.95	86
8	260	0.322	84.0	81.6	0.9703	14	48.6	1.46	70.95	87
9	280	0.299	83.8	81.0	0.9664	14	48.6	1.46	70.95	87
10	300	0.019	5.7	0.4	0.0757	25	0.00	000	00.00	00

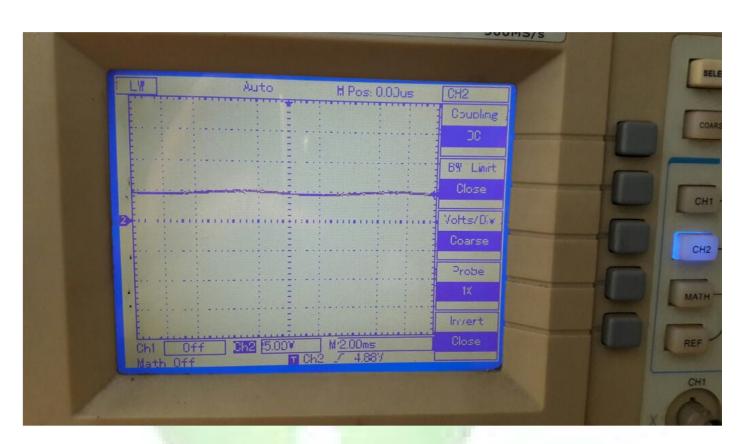
^{**} Tested on 3030 1W 6V LED 8 LED in series. ** Auto Cut at 290VAC

^{**} Open circuit output voltage 65.5V DC

^{**} 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 – 80 No of LED in series – 8 No of LED in Parallel - 10

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

Total No of LED – 160 No of LED in series – 16 No of LED in Parallel - 10

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

Total No of LED – 160 No of LED in series – 16 No of LED in Parallel - 10

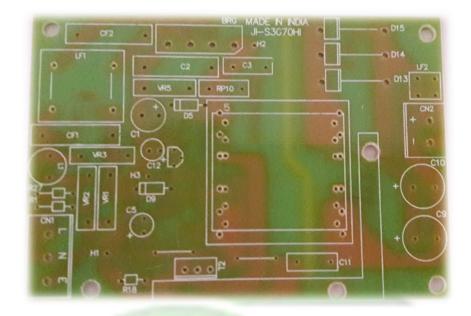
With 2835 LED: 1W, 9V, 100mA

Total No of LED – 80 No of LED in series – 5 No of LED in Parallel - 16

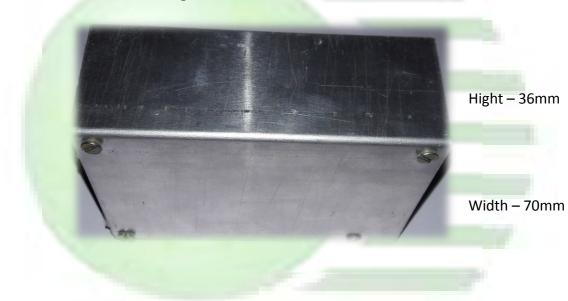
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Dimension:



Length - 98mm



Ordering Information:

Part No: JI-S3070HIAAAAVVV-WH/NH

Where

AAAA – Current in milliampere

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

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