



RoHS PARTS

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SPECIFICATION FOR APPROVAL

CUSTOMER :

PROGRAM NO. : LED-00-108V-0.330A-001-R1-V1

ISSUE DATE: 2020-6-1

VERSION	Details
V0	Initiated
V1	Add LED supplier BMTC and Update the description
DESIGNED BY	CHECKED BY
SK	
CUSTOMER APPROVED SIGNATURE :	
APPROVED DATE:	

FERRICS TECHNOLOGY CO., LIMITED

Add:

17F, Handing Mansion(North Tower), 5# Yongfuqiao Rd., Hangzhou, 310000, Zhejiang, China.

10F, QianJiang Mansion, 178# Qianjiang Rd.(W), Haining, 314400, Zhejiang, China

Tel: +86-573-87832359

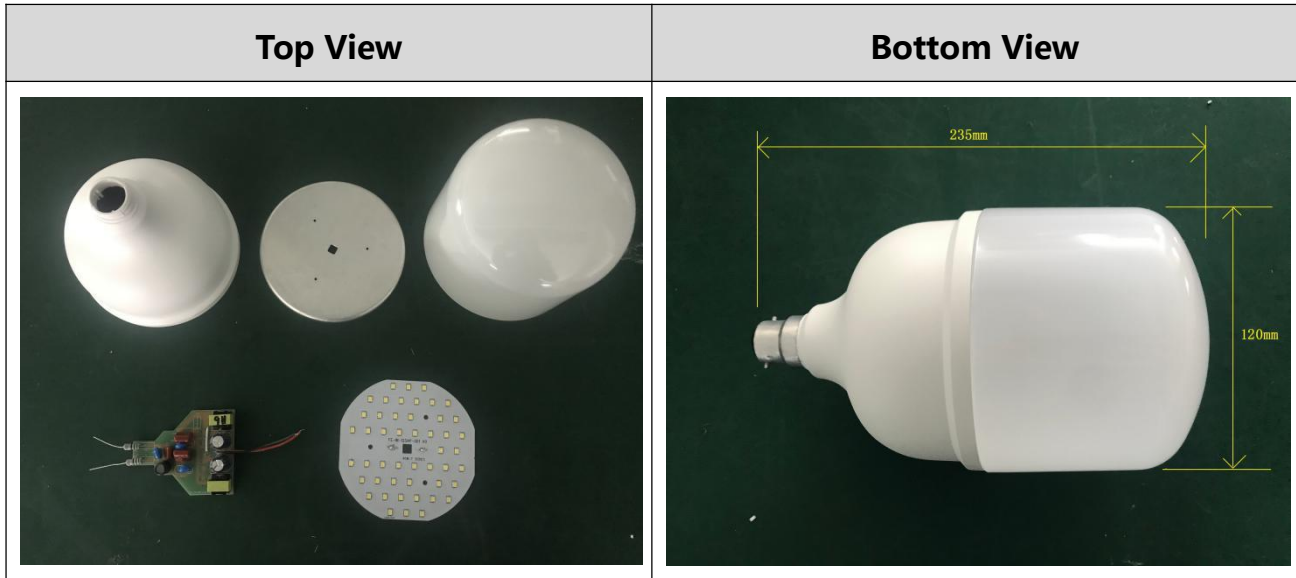
Fax: +86-573-80700736

<http://www.ferrics.com>

Email: sales@ferrics.com

LED-00-108V-0.330A-001-R1-V1

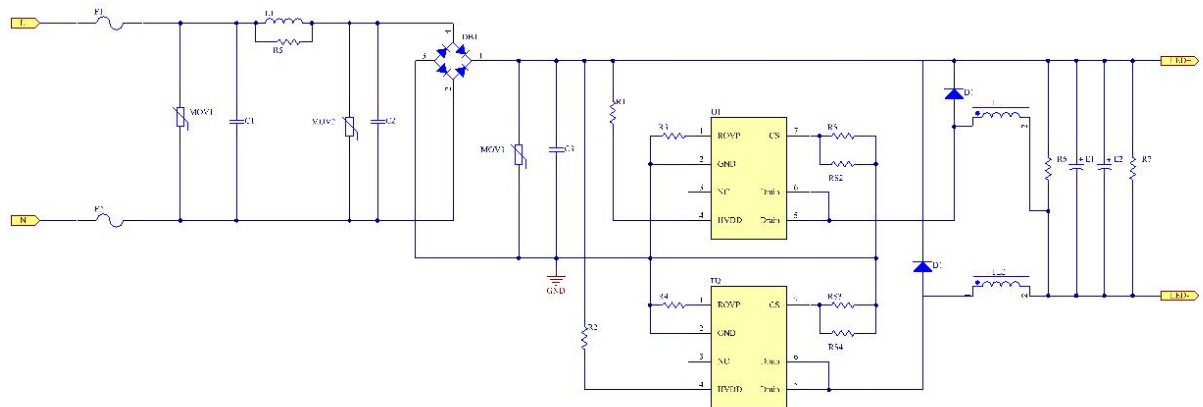
1. Photograph



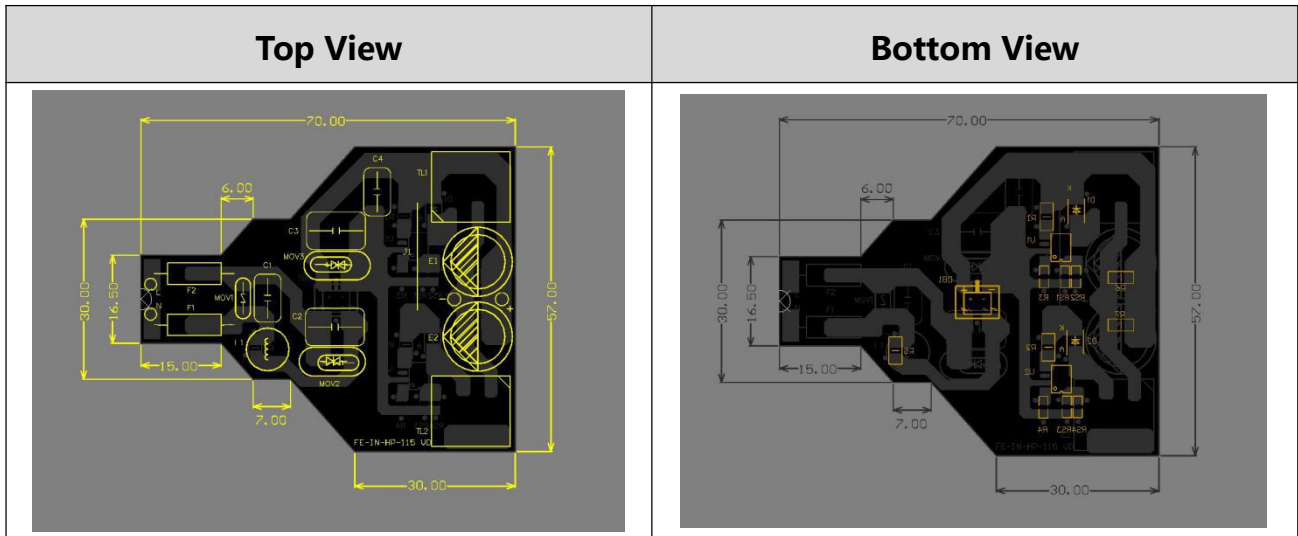
2. Input & Output Parameters

	Min	Normal	Max
Input Voltage(Vac)	200	230	420-440
Input Power(W)		38.25	
Output Voltage(Vdc)		108	
Output Current(mA)		330	
Efficiency		93.4%	
Surge			4KV

3. Schematic diagram



4. PCB layout



5. Test Reports

1) No load Output Voltage

AC input Voltage (Vac)	200V	230V	260V	300V	340V	400V	440V
Output voltage(Vdc)	120	124	125	124	124	131	132

2) General Test

Input : AC input voltage is 200Vac,230Vac,260Vac,300Vac,340Vac,400Vac,440Vac.

Load condition: CV 108Vdc.

Input Voltage	Load	Input Power (W)	PF	THD	Output Current (mA)	Eff (%)
200Vac	CV 108Vdc	38.07	0.972		329	93.3
230Vac		38.25	0.970	18.9	331	93.4
260Vac		38.55	0.965		334	93.5
300Vac		39.15	0.954		338	93.2
340Vac		38.73	0.942		334	93.1
400Vac		29.71	0.861		250	90.8
440Vac		22.24	0.754		184	89.3

3) Short-Circuit Test

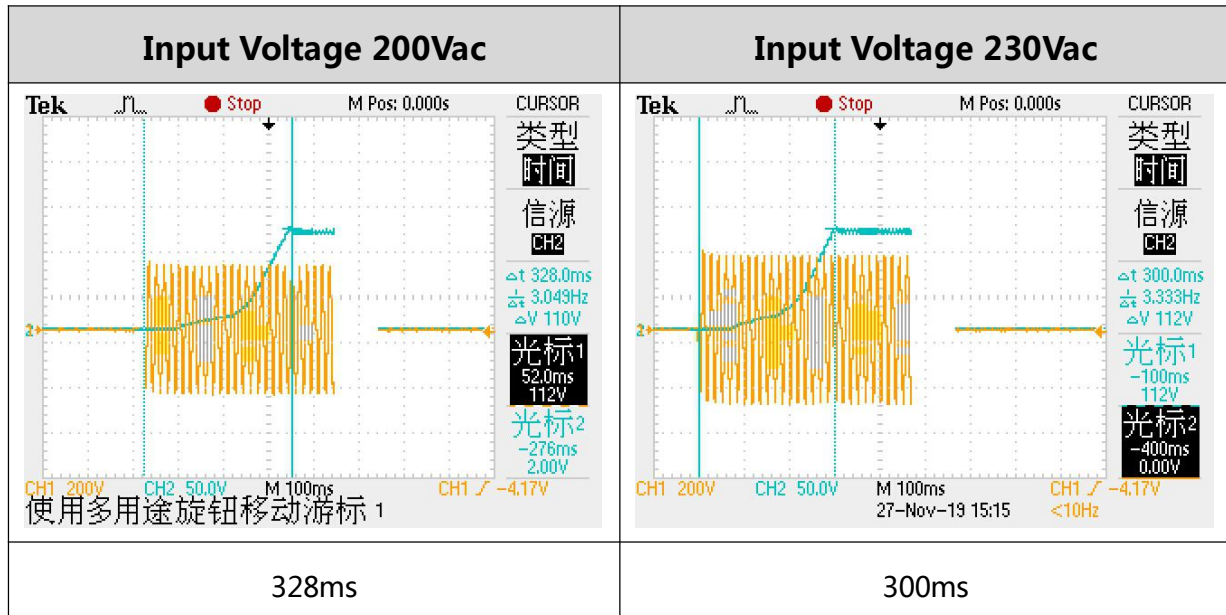
Input: AC200~440V; Output: short.

Test result: No components damaged, the demo board should be working when the short-circuit is removed.

AC input Voltage(Vac)	200V	230V	260V	300V	340V	400V	440V
Input Power (W)	0.45	0.55	0.67	0.87	1.17	1.68	2.46

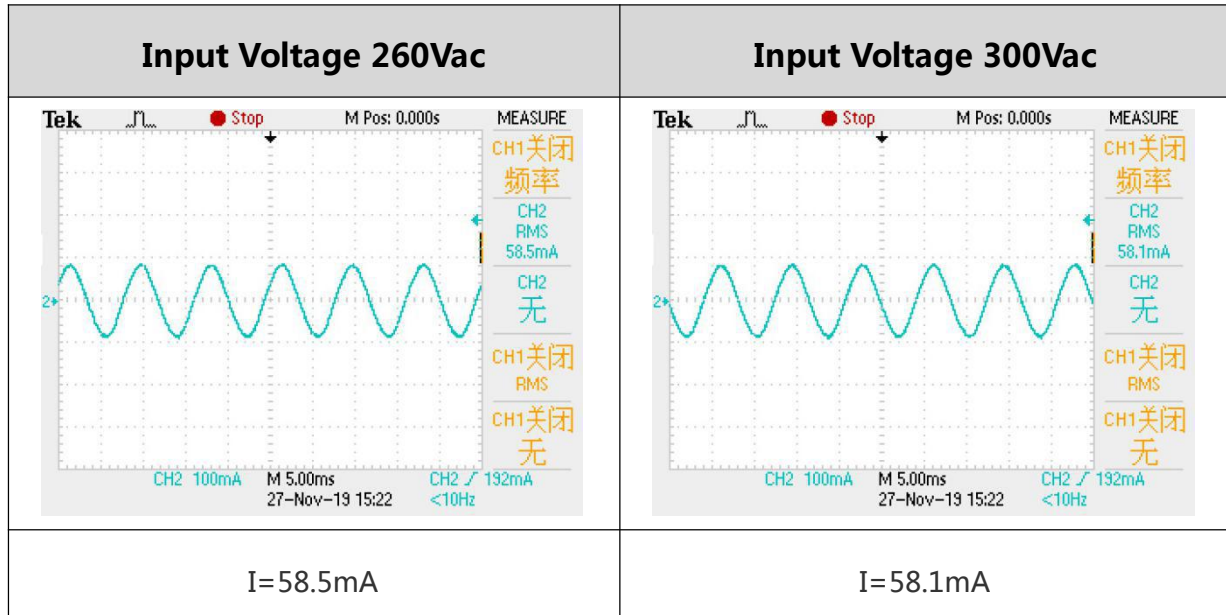
4) Start-up Time

Load condition: Full led load.



5) Ripple current Test (RMS)

Load condition: Full led load.



6) Mosfet and DIODE Voltage Stress Test

Input voltage: 300Vac, Load condition: full led load/short

MOSFET Voltage 300Vac,full load	MOSFET Voltage 300Vac,short
<p>使用多用途旋钮移动游标 2</p>	<p>27-Nov-19 15:30</p>
<p style="text-align: center;">$\Delta V=436V$</p>	<p style="text-align: center;">$\Delta V=436V$</p>
Diode Voltage 300Vac,full load	Diode Voltage 300Vac,short
<p>27-Nov-19 15:33</p>	<p>使用多用途旋钮移动游标 1</p>
<p style="text-align: center;">$\Delta V=436V$</p>	<p style="text-align: center;">$\Delta V=448V$</p>

7) Temperature Test

Case Closed, No wind environmental test. Vin:200Vac/230Vac/300Vac

Full led load.

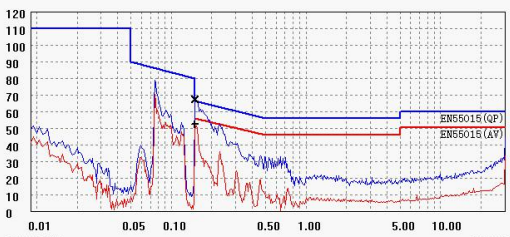
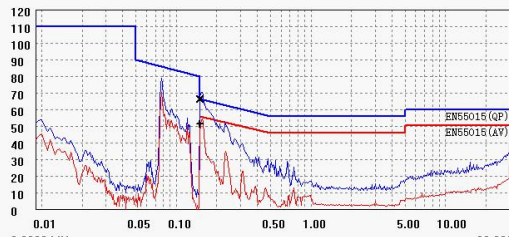
Position	200Vac	230Vac	300Vac
U1	94	106	111
U2	100	105	113
D1	100	102	112
D2	99	103	112
DB1	87	82	85
Winding1	99	102	112
CORE1	99	101	111
Winding2	98	99	113
CORE2	98	99	113
E1	91	91	103
E2	90	90	103
L1	75	70	72
F1	70	61	58
LED-	91	91	99
Shell	79	80	88
Ambient temperature	25°C		

8) 4kV Surge Testing

The test conditions: 230Vac, 4kV, 30s.

Angel	Positive or Negative	times	Pass/Fail
0	+	5	Pass
0	-	5	Pass
90	+	5	Pass
90	-	5	Pass
180	+	5	Pass
180	-	5	Pass
270	+	5	Pass
270	-	5	Pass

9) EMI Testing

230Vac-L		230Vac-N																																									
EMI TEST REPORT		EMI TEST REPORT																																									
<p>Organization: _____ parameter</p> <p>Place: _____ Operator: 2009/8/20/16:16 EUT: _____</p> <p>Detector: PK+AV Test-time(ms): 30 Test equipment: KH3932</p> <p>Limit: EN55015 Transductor(PK/AV): PK / AV SN: 1632571</p> <p>Remark: _____ JZ: 2,14,1182</p>		<p>Organization: _____ parameter</p> <p>Place: _____ Operator: 2009/8/20/16:10 EUT: _____</p> <p>Detector: PK+AV Test-time(ms): 30 Test equipment: KH3932</p> <p>Limit: EN55015 Transductor(PK/AV): PK / AV SN: 1632571</p> <p>Remark: _____ JZ: 2,14,1198</p>																																									
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10) Lumen Testing

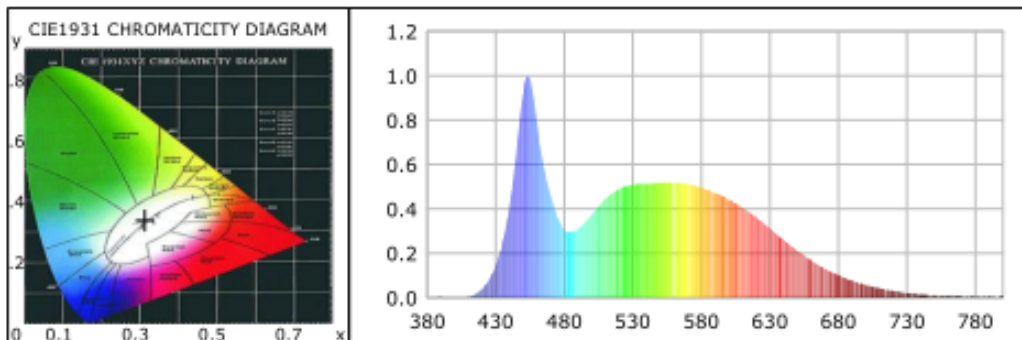
Lightsource Test Report

Product Information

Product Number: 93508

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3130$ $y=0.3369$ $u(u')=0.1951$ $v=0.3150$ $v'(v)=0.4726$
 CCT: $T_c=6432K$ ($duv=0.00706$) Color Ratio: $R=0.133$ $G=0.808$ $B=0.059$
 Peak Wavelength: 453.3nm Half Bandwidth: 26.3nm
 Dominant Wavelength: 504.4nm Color Purity: 0.066
 CRI: $R_a=83.8$ TM30: $R_f=82$, $R_g=93$
 $R_1=81$ $R_2=89$ $R_3=93$ $R_4=82$ $R_5=82$ $R_6=84$ $R_7=89$ $R_8=70$
 $R_9=10$ $R_{10}=73$ $R_{11}=81$ $R_{12}=59$ $R_{13}=84$ $R_{14}=97$ $R_{15}=76$
 Color Quality Scale: $Q_a=82.8$, $Q_f=83.1$, $Q_p=82.0$, $Q_g=90.6$
 $Q_1=83$ $Q_2=98$ $Q_3=81$ $Q_4=75$ $Q_5=79$ $Q_6=81$ $Q_7=85$ $Q_8=90$
 $Q_9=97$ $Q_{10}=90$ $Q_{11}=86$ $Q_{12}=85$ $Q_{13}=84$ $Q_{14}=73$ $Q_{15}=77$



Photometric Parameters

Luminous Flux: 4172.78 lm Efficiency: 113.95 lm/W Radiant Power: 13.462 W
 EEI: 0.12 Energy Efficiency Class: A+ (EU 874-2012)

Electric Parameters

Voltage: 230.70V Current: 0.1630A Power: 36.62W
 Power Factor: 0.9730 Frequency: 49.99Hz

Test Information

Scan Range: 380~800:1nm Photometric Method: sphere-spectroradiometer
 Stabilization Time: 3 0 min Photometric Condition: Sphere diameter: 1.75m, 4T
 Max of Signal: 47649 (3292) CCD Integration Time: 209.71 ms