



RoHS PARTS

请 承 认 书

SPECIFICATION FOR APPROVAL

CUSTOMER:

PROGRAM NO. : LED-00-108V-0.280A-001-R1-V1

ISSUE DATE: 2020.1.20

VERSION	Details
V0	Initiated
V1	Change PCB shape
DESIGNED BY	CHECKED BY
GMJ	
CUSTOMER APPROVED SIGNATURE:	
APPROVED DATE:	

FERRICS TECHNOLOGY CO., LIMITED

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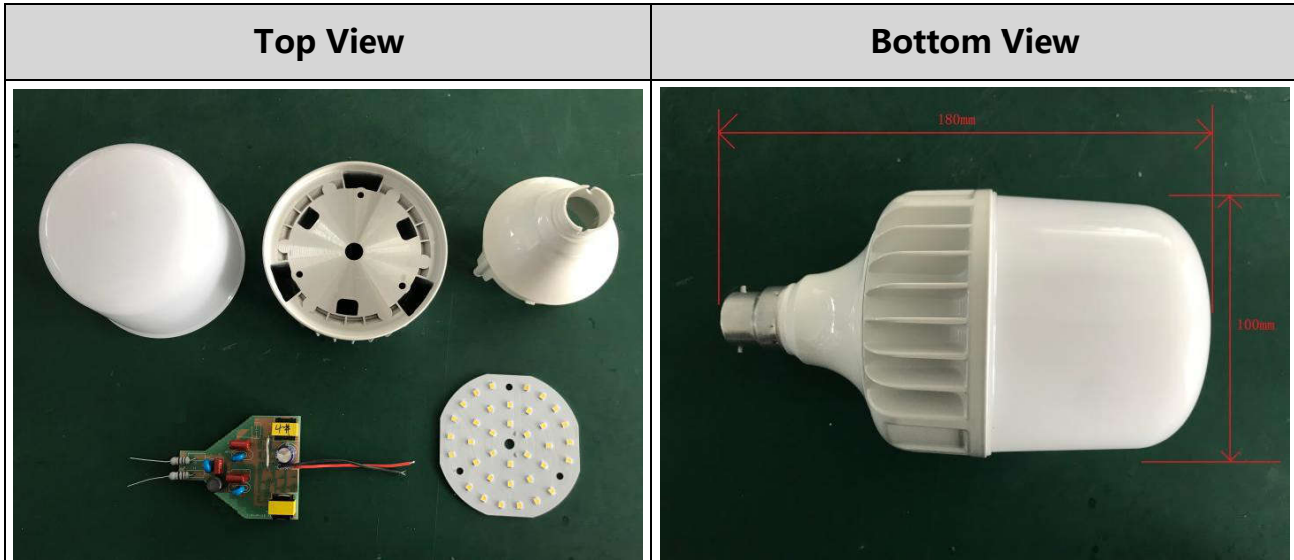
Fax: +86-573-80700736

<http://www.ferrics.com>

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LED-00-108V-0.280A-001-R1-V1

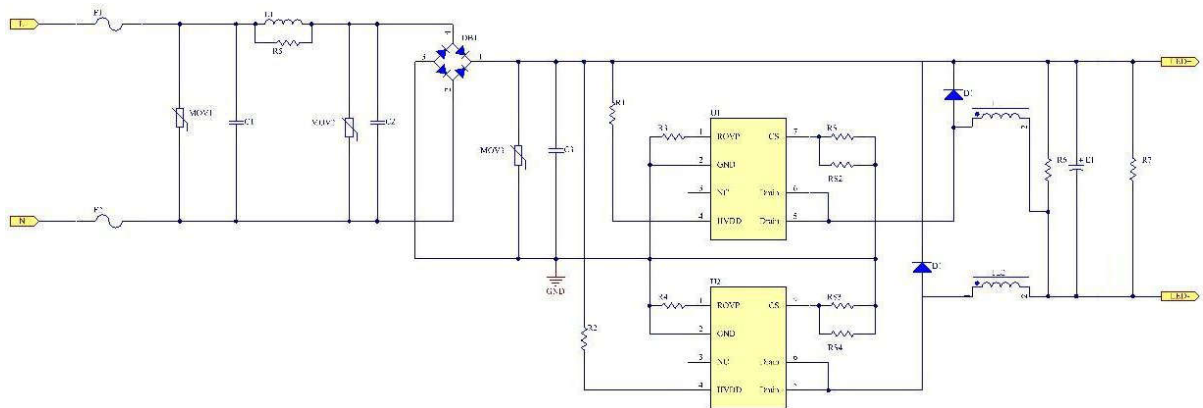
1. Photograph



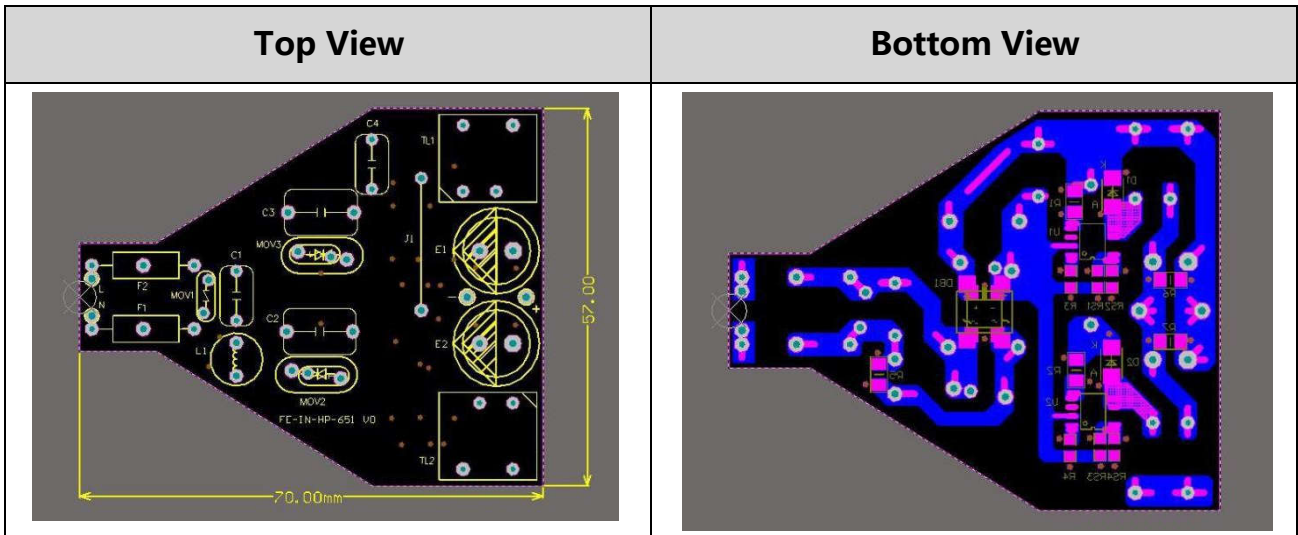
2. Input & Output Parameters

	Min	Normal	Max
Input Voltage(Vac)	180	230	420-440
Input Power(W)		33	
Output Voltage(Vdc)		108	
Output Current(mA)		280	
Efficiency		90%	
Surge			4KV

3. Schematic diagram



4. PCB layout



5. Test Reports

1) No load Output Voltage

AC input Voltage (Vac)	180V	230V	260V	300V	370V	400V	440V
Output voltage(Vdc)	125	129	133	128	133	134	135

2) General Test

Input : AC input voltage is 180Vac,230Vac,260Vac,300Vac,370Vac,400Vac,440Vac.

Load condition: CV 108Vdc.

Input Voltage	Load	Input Power (W)	PF	THD	Output Current (mA)	Eff (%)
180Vac	CV 108Vdc	29	0.964		247	92
230Vac		33	0.969	19.3	282	92.2
260Vac		33.2	0.956		284	92.4
300Vac		34	0.951		288	91.5
370Vac		31	0.895		264	92
400Vac		26.3	0.836		221	90
440Vac		20.2	0.716		162	86.6

3) Short-Circuit Test

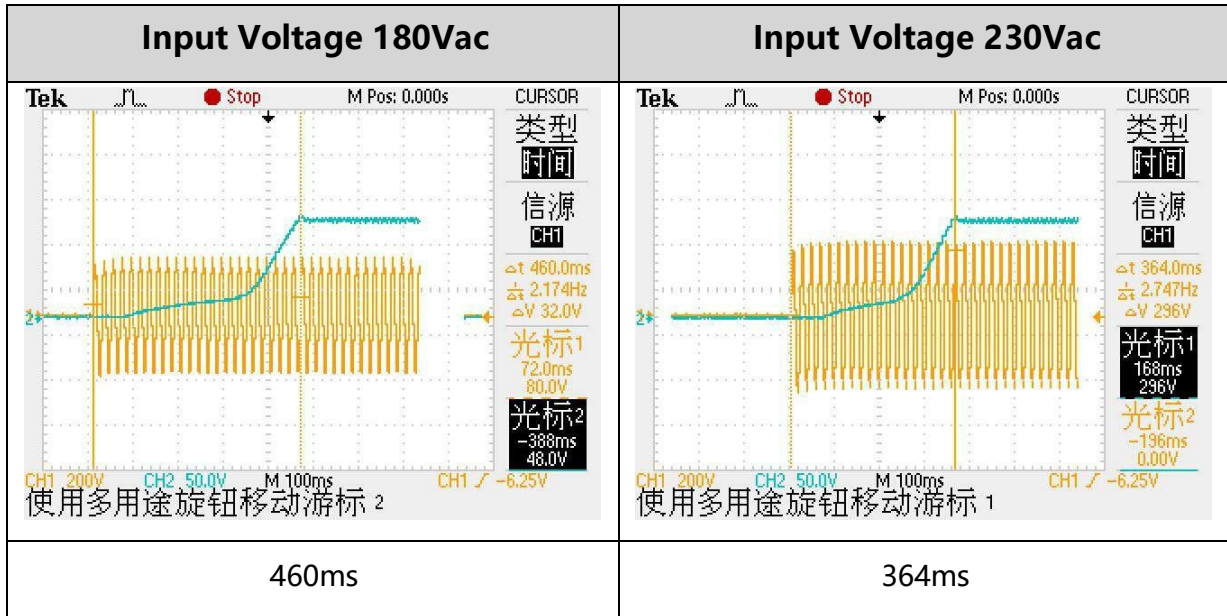
Input: AC180~440V; Output: short.

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

AC input Voltage(Vac)	180V	230V	260V	300V	370V	400V	440V
Input Power (W)	0.35	0.5	0.63	0.85	1.44	1.72	2.95

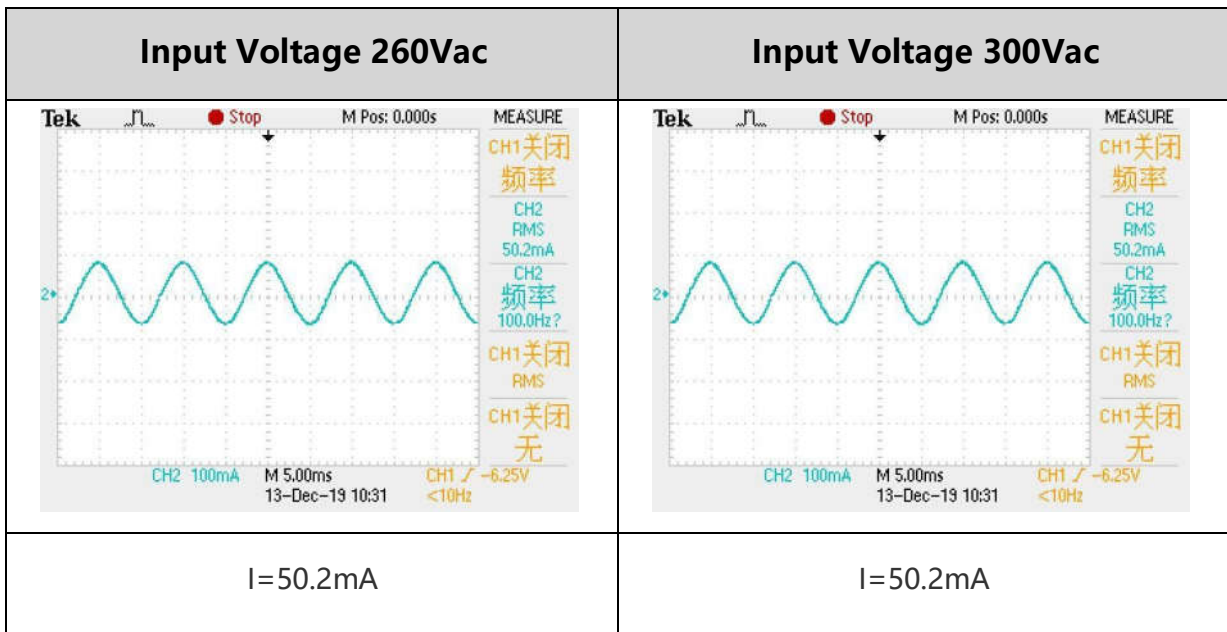
4) Start-up Time

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

<p>MOSFET Voltage 300Vac,full load</p>	<p>MOSFET Voltage 300Vac,short</p>
<p>使用多用途旋钮移动光标 2</p>	<p>使用多用途旋钮移动光标 1</p>
<p>$\Delta V=452V$</p>	<p>$\Delta V=432V$</p>
<p>Diode Voltage 300Vac,full load</p>	<p>Diode Voltage 300Vac,short</p>
<p>$\Delta V=448V$</p>	<p>$\Delta V=444V$</p>

7) Temperature Test

Case Closed, No wind environmental test. Vin:180Vac/230Vac/300Vac
 Full led load.

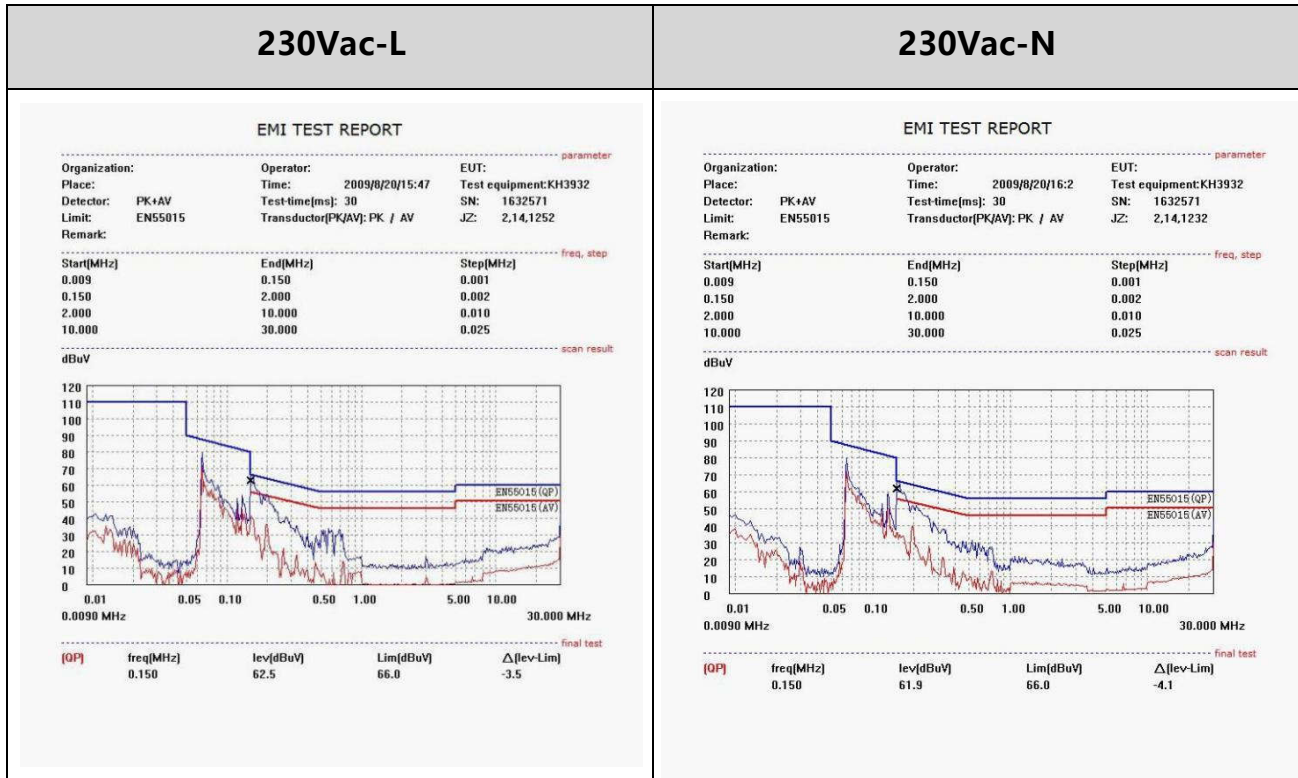
Position	180Vac	230Vac	300Vac
U1	92	97	102
U2	99	106	111
D1	91	96	101
D2	98	104	109
DB1	82	84	84
Winding1	93	98	102
CORE1	90	94	98
Winding2	96	102	107
CORE2	96	102	107
E1	89	93	96
E2	89	93	96
L1	70	71	70
F1	62	60	54
LED-	92	96	99
Shell	78	81	82
Ambient temperature	25°C		

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



10) Lumen Testing

Lightsource Test Report

Product Information

Product Number: 157918

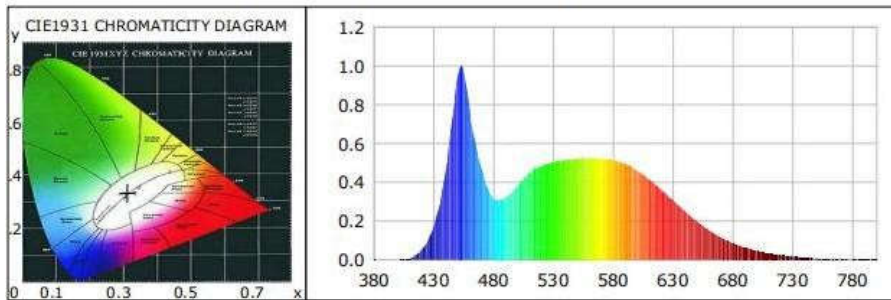
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3120$ $y=0.3336$ $u(u')=0.1956$ $v=0.3138$ $v'=0.4707$
 CCT: $T_c=6510K$ ($duv=0.00591$) Color Ratio: $R=0.131$ $G=0.809$ $B=0.059$
 Peak Wavelength: 452.5nm Half Bandwidth: 27.8nm
 Dominant Wavelength: 491.9nm Color Purity: 0.072
 CRI: $R_a=83.1$ TM30: $R_f=81$, $R_g=93$

R1 =80	R2 =89	R3 =93	R4 =81	R5 =81	R6 =84	R7 =88	R8 =68
R9 =2	R10=73	R11=80	R12=60	R13=83	R14=96	R15=75	

 Color Quality Scale: $Q_a=81.8$, $Q_f=82.1$, $Q_p=81.0$, $Q_g=90.1$

Q1 =82	Q2 =99	Q3 =81	Q4 =74	Q5 =79	Q6 =81	Q7 =85	Q8 =90
Q9 =97	Q10=89	Q11=84	Q12=83	Q13=83	Q14=70	Q15=75	



Photometric Parameters

Luminous Flux: 3552.03 lm Efficiency: 113.92 lm/W Radiant Power: 11.401 W
 EEI: 0.12 Energy Efficiency Class: A+ (EU 874-2012)

Electric Parameters

Voltage: 229.90V Current: 0.1400A Power: 31.18W
 Power Factor: 0.9680 Frequency: 49.99Hz

Test Information

Scan Range: 380~800:1nm	Photometric Method: sphere-spectroradiometer
Stabilization Time: 30 Min	Photometric Condition: Sphere diameter: 1.75m, 4π
Max of Signal: 46529 (2633)	CCD Integration Time: 245.14 ms