

SPECIFICATION FOR REFERENCE

CUSTOMER: _____

CUSTOMER P.N.: _____

MODEL NO.: MS-Z2610R230-065E0-P

PRODUCT NO.: SCXXX-U0/XXXXXX

SAMPLE DATE: 2023-03-22

CUSTOMER AUTHORIZED SIGNATURE		

Please return to us one copy of "SPECIFICATION FOR APPROVAL"
with you approved signature.

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1. Introduction

This product is an AC to DC power transfer device with lead free (RoHs), it can provide for a 60W single DC output with constant voltage source.

2. Specification

2.1.Input Characteristics

2.1.1.Ac Input Voltage

100~240Vac

2.1.2.Ac Input Range

90~264Vac

2.1.3.AC Input Frequency(Range)

50/60Hz

2.1.4.AC Input Current

100Vac 1.6Arms Max

230Vac 0.85Arms Max

2.1.5.Inrush Current

I^2T - under 10% (calculated by RMS) : Fuse, Bridge diode

2.1.6.Leakage Current

Less than 0.25mA @264V/50Hz

2.1.7.Power Consumption(Power Loss)

$\leq 0.1W$ @according LGE standard, first burn-in for half an hour, No Load, @230V/50Hz,

Remark: 5% margin for MP.

2.2.Output Characteristics

2.2.1.Output Voltage Regulation

21.8Vdc(Lower limit)~ 24.2V(Upper limit)

2.2.2.Output Current

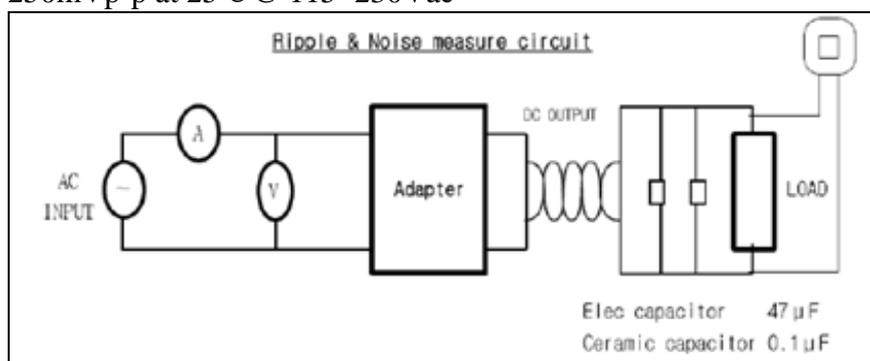
0- 2.61A

2.2.3.Output Voltage Regulation

$\pm 5\%$

2.2.4.Ripple & Noise

250mVp-p at 25°C @ 115~230Vac



2.2.5.Hold Up

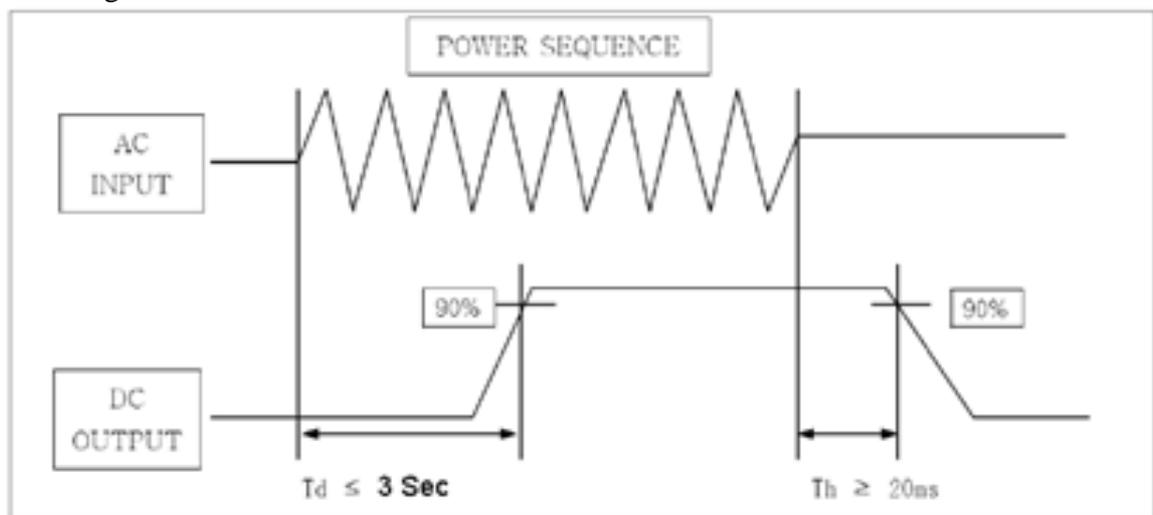
10mS min.@115Vac &@230V input

2.2.6.Turn On Time

90Vac 3s Max @Full load

Rise time: 30ms Max

Line Regulation: $\pm 5\%$



2.3.Overall Performance

2.3.1.Maximum Output Power

60W

2.3.2.Efficiency

When line input voltage(115 or 230Vac),the average efficiency shall be 88% or better under 25%;50%;75% and full load.(according to DOE VI,first burn-in 0.5 hours).Remark: 0.5% margin for MP.

Variable factor (standard deviation/average) is less than 1% for control of the distribution.

2.3.3.DPMS Spec(No Load, 10mA)

With no load, power saving shall less than 0.1W at 115V/230Vac 50/60Hz input.

With 10mA output load, power saving shall less than 0.75W at 115V/230Vac 50/60Hz input.

2.4.Protection Characteristics

2.4.1.Over Current Protection

Between 6.2A and 8.2A @ 90 to 264Vac, Auto-recovery mode

Peak Load :

6A, Full load the PSU can working for one minute.(@ 90 to 264Vac Ambient 25°C)

8.6A ,Full load the PSU can working for 100mS(@ 90 to 264Vac CC Mode)

INPUT VOLTAGE & FREQUENCY	SECIFICATION	TEST DATA	RESULT
90Vac/60Hz	6.2-8.2A	7.12A	PASS
115Vac/60Hz	6.2-8.2A	7.15A	PASS
230Vac/50Hz	6.2-8.2A	7.48A	PASS
264Vac/50Hz	6.2-8.2A	7.78A	PASS

2.4.2. Over Voltage Protection

32V Max@ 90 to 264Vac, Auto-recovery mode.

2.4.3. Short Circuit Protection

The power supply shall not be damaged by short between DC output "+" and "-".

3. Environmental Requirements

3.1. Operating Temperature

-10°C to 40°C (60°C: No H/W failure at short time)

3.2. Operating Humidity

10 to 90%

3.3. Storage Temperature

-25 to 85°C

3.4. Storage Humidity

5 to 95%

3.5. Altitude

Altitude up to 5000m

3.6. Lead free requirements

For LG ROHS Final Edition

4. Safety & EMC Requirement

4.1. Dielectric strength (Hi-Pot Test)

Leakage(cutoff) current 5mA

1) Safety Test:

Primary To Secondary: 3000Vac. 1 minute

Production Line: Primary To Secondary: 3600Vac, 2 seconds for production

Insulation resistance

Insulation resistance shall be more than 10MΩ at 500Vdc between Primary to Secondary.

4.2. Electro-Magnetic Compatibility

5. Product Safety

5.1. EMI Standards

Design to meet the requirements as follows FCC and CISPR22 Class B with 3dB min margin.

(by R-Load)

5.2.EMS Standards

(ESD,RS,CS, Surge, Burst/EFT, Power frequency magnetic field immunity test, Voltage Dips)

EMS Standards : No Function Loss

1)EN61000-4-2(IEC61000-4-2):Electrostatic Discharge ESD.

Electrostatic Discharge:±15KV(Air) ±8KV(Contact)

2)EN61000-4-3(IEC61000-4-3):Radiated Immunity RS.

Radiated Susceptibility:3V/m

3)EN61000-4-4(IEC61000-4-4): EFT/AC Line noise.

Transient Test: ±1KV(EFT) ±2KV(AC Line noise)

4)EN61000-4-5(IEC61000-4-5):Surge.

Normal (Line to Line) : ±3kV, Coupling @ 18uF(2Ω)

Common (Line to GND) : ±4kV, Coupling @ 10Ω+9uF(12Ω)

5)EN61000-4-6(IEC61000-4-6):Conducted Radio Frequency

Injected Current Susceptibility:3V/m

6)EN61000-4-8(IEC61000-4-8):Power Frequency Magnetic Field Test.

Test Vtotalge : 3Vrms

7)EN61000-4-11(IEC61000-4-11):Voltage Dips DIP.

It refers to IEC 61000-4-11

5.3.Safety Standards

The adapter shall be certified with the following safety standards : /

6. Reliability Requirement

6.1.MTBF/AI Cap Life

(1)Mean Time between Failures (MTBF)

The power supply shall be designed and produced to have a mean time between failures (MTBF) of 200,000 operating hours minimum condition : rated load at ambient temperature of 25°C by Telcordia SR-332

(2)E-Cap life time

The AC E-caps used in this PSU must be with lifetime of 35,000Hrs at 25°C @ 90Vac & 264Vac.

The other E-caps used in this PSU must be with lifetime of 50,000Hrs at 25°C @ 90Vac & 264Vac.

6.2.Box Vibration Test/ Drop Test

Satisfy with specification & not to be teared PE Bag(Vibration test @1.3Grms, 1Hr.)

Packed weight	Drop height
≤9.0kg	76cm
≤9.0kg-18.0kg	60cm
≤18.0kg-27.0kg	45cm
≤27.0kg-45kg	30cm

6.3.Adaptor Case Temperature characteristics

Max 65°C (@90V(60Hz), 25°C(Environment temperature), CST Full Load)

7. Mechanical Features

7.1.Physical Size

121.7 mm ± 1mm (L) * 58 mm ± 1mm (W) * 33.6 mm ± 1mm (H)

7.2.Weight

340g(± 10g)

7.3.Color

Black

7.4.DC output cable

Length 1500mm and wires 20AWG; 2464; Black

7.5.AC Input Connector

2 Pole; **Desk-top**;Black

8. Mechanical Drawing

8.1.Outline Adapter Size

8.2.Product Picture(Top, Bottom, Left, Right, Front, Back View)

