

SPECIFICATION FOR REFERENCE

CUSTOMER:	
CUSTOMER P.N.:	
MODEL NO.:	V40-Z8300R240-200A0-E
PRODUCT NO.:	SCXXX-E0
SAMPLE DATE:	2024-06-28

CUSTOMER AUTHORIZED SIGNATURE

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

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MANUFACTURER AUTOGRAPH

Reviser	Confirm	Checked	Approval

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1. SCOPE

The document detail the electrical, mechanical and environmental specifications of a SMPS, the power supply provide 199.2W continuous output power.

The power supply shall meet the **HSF** requirement.

1.1.Description

- SMPS Adaptor(Wall mount)
 SMPS Adaptor(Desk-top)
 Open Frame
 SMPS Unit (With Case)
 Others

1.2.Green Requirements

- RoHS:2011/65/EU & (EU) 2015/863;
 REACH:1907/2006/EC;
 Halogen-free:IEC 61249-2-21;
 CA Prop 65;
 POPs:(EU)2023/1608;
 PAHs: 2005/69/EC;
 Packaging Directive:94/62/EC;
 US EPA Toxic Substances Control Act (TSCA);
 Others

1.3.Energy Efficiency Requirements

No.	Country	Energy efficiency abbreviation	Whether it meets the requirements/(YES/ <input checked="" type="checkbox"/> , NO/ <input type="checkbox"/>)
1	USA	DoE VI	<input type="checkbox"/>
2		CEC	<input type="checkbox"/>
3	Canada	NRCan	<input type="checkbox"/>
4	Australia/New Zealand	GEMS	<input type="checkbox"/>
5	Europe	Erp VI	<input type="checkbox"/>
6		CoC V5 Tier 2	<input type="checkbox"/>
7	South Korea	KMEPS	<input type="checkbox"/>
8	Mexico	MEPS	<input type="checkbox"/>
9	Byelorussia	MEPS	<input type="checkbox"/>

2. Input Characteristics

2.1. Input Voltage & Frequency

The range of input voltage is from 90Vac to 264Vac single phase.

	Minimum	Nominal	Maximum
Input Voltage	90Vac	100Vac~240Vac	264Vac
Input Frequency	47Hz	50Hz/60Hz	63Hz

2.2. Input AC Current

2.5A max. @ 100-240Vac input & Full load.

2.3. Inrush Current (cold start)

The energy of inrush current should not be over the I²T of fuse & bridge diodes.

2.4. Averaged Efficiency

88% min. @ 115Vac input/ 230Vac input (@25%, 50%, 75% and 100% of max load).

2.5. Energy Consumption

No load consumption ≤ 0.21W (115Vac/50Hz & 230Vac/60Hz).

3. Output Characteristics

3.1. Static Output Characteristics <Vo & R+N>

Output	Rated Load		Output Range	R+N	Remark
	Min. Load	Max. Load			
+24V	0.0A	8.3A	22.8V~ 25.2V	200mVp-p	115-230V

Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF Electrolytic capacitor. (Test under the condition of rated input and rated output).

3.2. Line/ Load Regulation

Output	Load Condition		Line Regulation	Load Regulation	Remark
	Min. Load	Max. Load			
+24V	0.0A	8.3A	± 2%	± 5 %	

3.3. Turn - on Delay Time

3S max. @90-264Vac input & Full load.

3.4. Hold-up Time

10mS min. @ Full load & 115Vac/60Hz input turn off.

20mS min. @ Full load & 230Vac/50Hz input turn off.

3.5. Rise Time

100mS max. @ Rated load.

3.6. Fall Time

100mS max. @ Full load.

3.7. Output Overshoot / Undershoot

The overshoot at turn on and turn off shall not exceed 10% of nominal output voltage.

3.8.Output Load Transient Response

Output voltage within 22.8V~25.2V for load step from 20% to 80%, R/S: 0.5A/uS,
Frequency: 100Hz duration and 5mS at 80%.

4. Protection Requirements

4.1.Over Current Protection

Over Current Point Limited: $I > 11A(100-240Vac)$

The output shall hiccup when the over currents applied to the output rail, and shall be self-recovery when the fault condition is removed

4.2.Short Circuit Protection

The input power shall decrease when the output rail short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed

4.3.Over Voltage Protection

The power supply has to be protected against over voltage conditions. No damage allowed. The power supply must come back to nominal working without on/off powering after removal of the over voltage condition.

5. Environment Requirements

5.1. Operating Temperature and Relative Humidity

0°C to +40°C

10%RH to 90%RH

5.2.Storage Temperature and Relative Humidity

-20°C to +80°C

5%RH to 95%RH non-condensing @ Sea level shall be low 5,000 meters.

5.3.Vibration

10 to 300Hz sweep at a constant acceleration of 1.0G (Breadth: 3.5mm) for 1Hour for each of the perpendicular axes X, Y, Z.

5.4.Drop Test

Height: 1m; the product should be fell off on the hardwood with the thickness of 20mm, and the hardwood should be put on the base of the cement or on the ground without flexibility. Apply one time on all surfaces, totally 6 times.

6. Reliability Requirements

6.1. Burn-in

The power supply shall be burn-in for 2 Hours under normal input and 80% rated load at $35^{\circ}C \pm 5^{\circ}C$, the electric performance and Hi-Pot test must be OK.

6.2.MTBF

The MTBF of power supply shall be over than 50,000 Hours @ 25°C, 100% Load@115V/230VAC

6.3.E-caps lifetime

The E-caps used in this PSU must be with lifetime of 2 years @ 25°C @ 115Vac/60Hz and 230Vac/50Hz input.

7. EMI/EMS Standards

7.1.EMI Standards

EN55032 EN55035

7.2.EMS Standards

7-2-1 EN 61000-4-2,electrostatic discharge(ESD) requirement

Discharge characteristic	Test level	Test criteria
Air discharge	+/-8KV	B
Contact discharge	+/-4KV	B

7-2-2 EN 61000-4-3,radiated electromagnetic field susceptibility(rs)

Test level	Test criteria
3V/m (r.m.s)	A
80-1000MHz,80%AM(1KHz) sine-wave	

7-2-3 EN 61000-4-4,electric fast transients(burst) immunity requirement

Coupling	Test level	Test criteria
AC-input	1KV	A
AC-input	2KV	B

7-2-4 EN 61000-4-5,surge capability requirement

Surge voltage	Test criteria
Common mode +/-4KV	A
Differential mode +/-2KV	

7-2-5 EN 61000-4-6, Induced radio frequency fields conducted disturbances immunity requirement

Test level	Test criteria
3V	A
0.15-80 MHz,80%AM(1KHz)	

7-2-6 Assessment criteria

Acceptance criteria	Performance
A	Agreed operational behavior within the specified limits.
B	Time limited functional diminishment or malfunction during the tests is permitted. The function is self-reactivated by the unit following completion of the tests.
C	Malfunction is permitted .The function can be reactivated either by reconnection to the mains or by operator intervention.

8. Safety Standards

8.1.Dielectric Strength(Hi-pot)

Primary to Secondary: 1500Vac / 10mA max. / 60 second.

Primary to Secondary: 1800Vac / 5mA max. /3S. (when production).

8.2.Leakage Current

0.5mA max. at 264Vac / 60Hz.

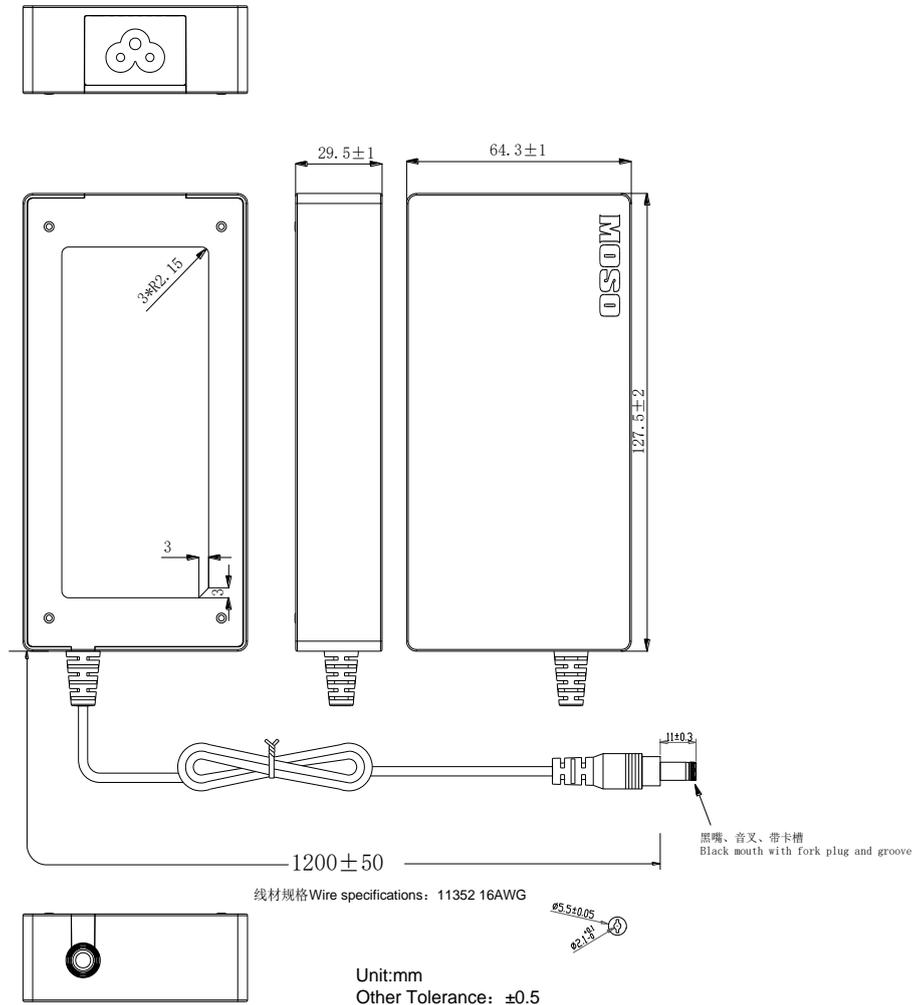
8.3.Insulation Resistance

50MΩ min. at primary to secondary add 500Vdc test voltage.

8.4.Regulatory Standards

Type	Country	Standard	State	
CE	Europe	EN62368-1	MEET	

9. Mechanical Outline Drawing



Case material: ■ PC temperature resistance: 120°C.

□ PC+ABS temperature resistance: 95°C.

Remark: 1) PC material compliances with ball pressure testing requirement.

2) The color of enclosure and DC cable are black(1101M).

10. I/O Marking Drawing



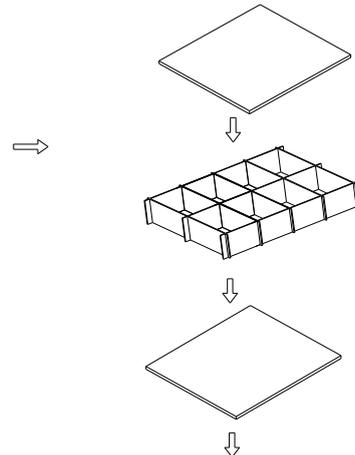
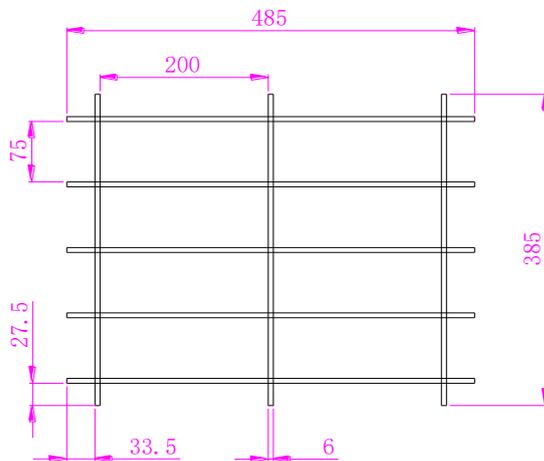
Remark:

- Above label is laser engraved.
- The dimension of garbage bin mark can NOT less than 7mm.



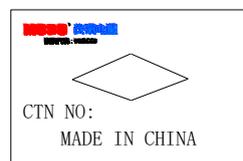
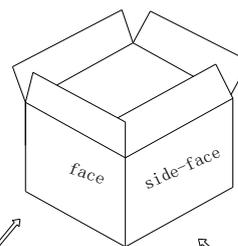
- product code(产品编码:实际S编码后六位, 如SC217-E0,取C217E0)
- producing year(产品实际生产年份,年份最后一位, 如2024年, 取4)
- producing month(产品实际生产月份, 如11月, 取11)
- producing date(产品实际生产日期, 如12日, 取12)
- product listing number(产品序列号,000001-999999)

11. Package Drawing



Packing Instruction:

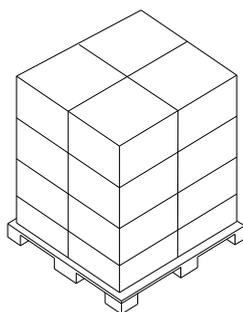
- 1、 the product put in the bag , then the packing product put in the partitioning card groove , 8PCS/floor, 4 floors in all , 32PCS/box
such as: 8pcs/floor*4floor=32PCS/box
- 2、 the usage of the packing materials:
 - 1) Combined knife card dosage:485*385*70 4PCS
 - 3) the usage of the PE bag 250*140: 32PCS
 - 4) the usage of the flat 485*385:5PCS
 - 5) carton box 500*400*335: 1PCS
- 3、 Pallet stacke instruction:
 - 1) Pallet size is:L1000*W800*H100mm
 - 2) per floor set 4pcs
 - 3) stacke per 4floor*4pcs carton total 16 pcs carton



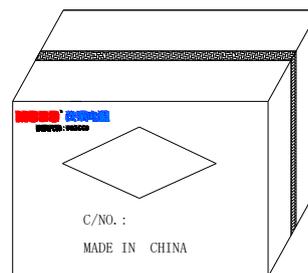
P/O NO.
ITEM NO.
QTY
G. W. : N. W. :
CTN SIZE:

500*400*335MM

the bag of outside size: 500L*400W*335H



The pallet stack drawing



The product will be packed in the carton box and the box will be sealed by the sticker

The requirement of PE bag packing: PE bag without sealing by adhesive tape.

PE bag with sealing by adhesive tape

Other requirement

Remark: If the customer has not chose the PE bag packing way, we will use the PE bag without sealing by adhesive tape.