

# SUNON

## SPECIFICATION FOR APPROVAL

**CUSTOMER** : SUNON  
**MODEL NO** : SM421-21002Y  
**DESCRIPTION** : Thermal Module  
**DIMENSIONS** : 118X78X69.7 mm  
**SUNON SPEC. NO.** : C02006400F-01  
**CUSTOMER APPROVAL NO.** :  
**APPROVED BY CUSTOMER** :  
(AUTHORIZED)

<b>DRAWN</b>  Qian	<b>CHECKED</b>  Qian	<b>APPROVED</b>  Jordan	<b>SPEC. NO</b>	C02006400F-01
			<b>ISSUED DATE</b>	10. 31. 2021
			<b>EDITION</b>	2
			<b>REVISION DATE</b>	02. 09. 2022

建準電機工業股份有限公司

SUNONWEALTH ELECTRIC MACHINE INDUSTRY CO., LTD.

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# SPECIFICATION FOR APPROVAL

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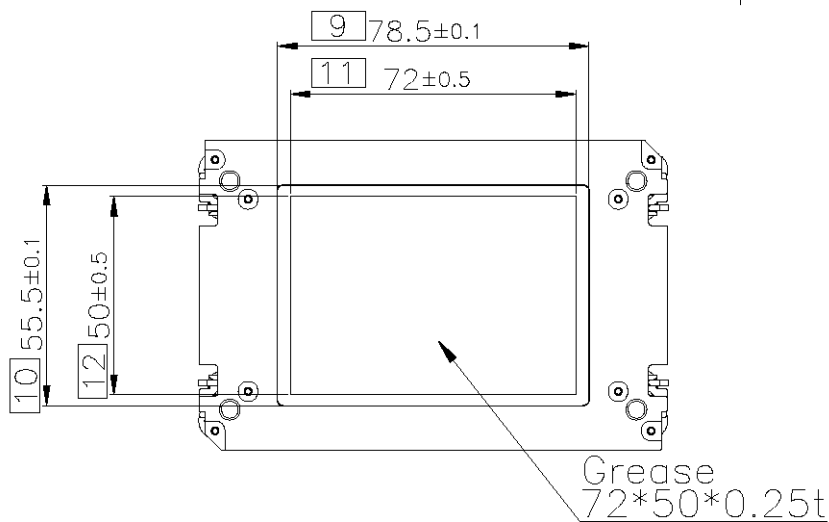
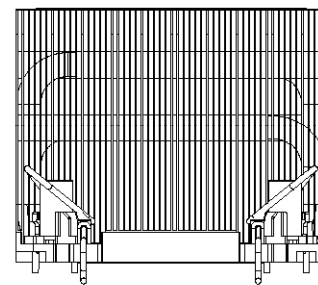
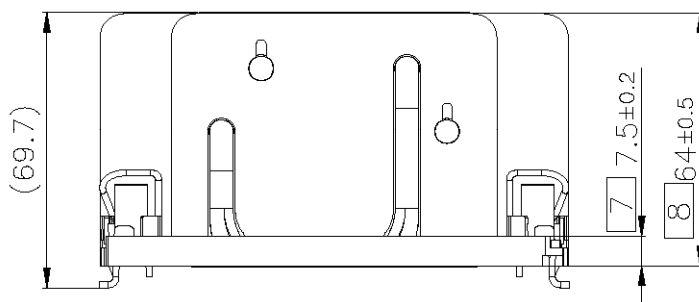
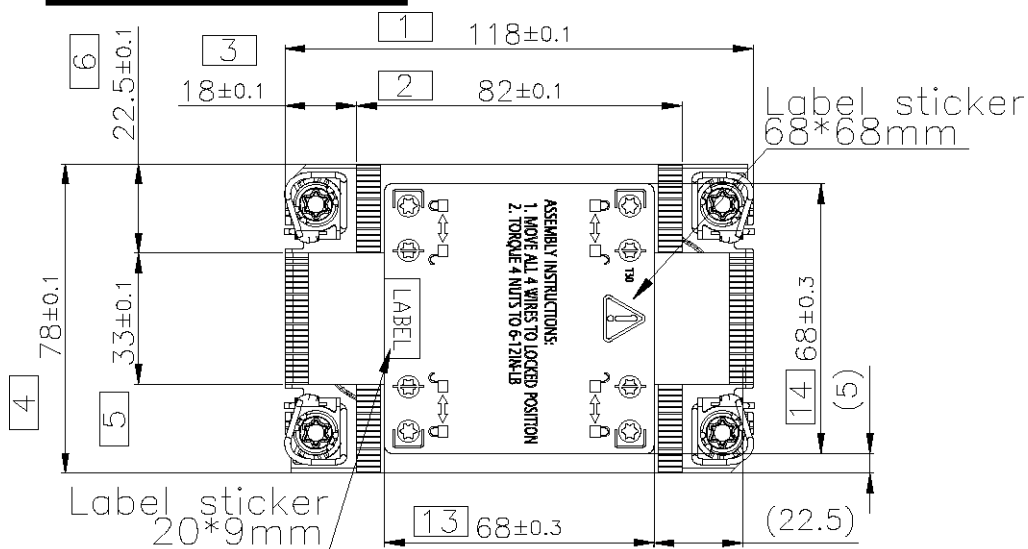
**MODEL : SM421-21002Y****1.SPECIFICATIONS**

1. Application	300W	
2. Heat Sink Dimension	118X78X7.5mm	
3. Heat Sink Material	ADC10	
4. Cooling Method	N/A	
5. Thermal Grease / PAD	X-23-7921-5	
6. Fan Dimension	N/A	
7. Fan Speed (with Heat Sink)	N/A	
8. Fan Airflow ( with Heat Sink )	N/A	
9. Fan Rating Voltage	N/A	
10. Fan Rating Current ( with Heat Sink )	N/A	
11. Fan Power Consumption ( with Heat Sink )	N/A	
12. Fan Bearing Type	N/A	
13. Fan Connector	N/A	
21. Cooling Module Noise	N/A	
15. Fan Operating Voltage Range	N/A	
16. Operating Temperature	-10 to + 70 deg. C	
17. Storage Temperature	-40 to + 70 deg. C	
18. Weight	435 g	
19. Life Expectance	N/A	
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2.DIMENSION



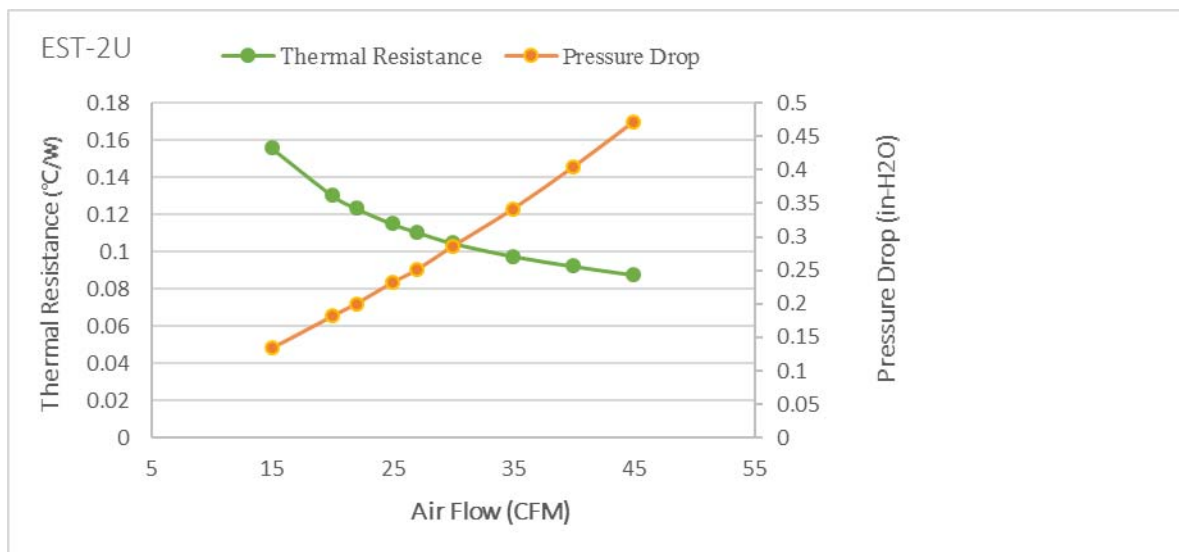
UNIT: mm

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### 3.Heatsink Performance

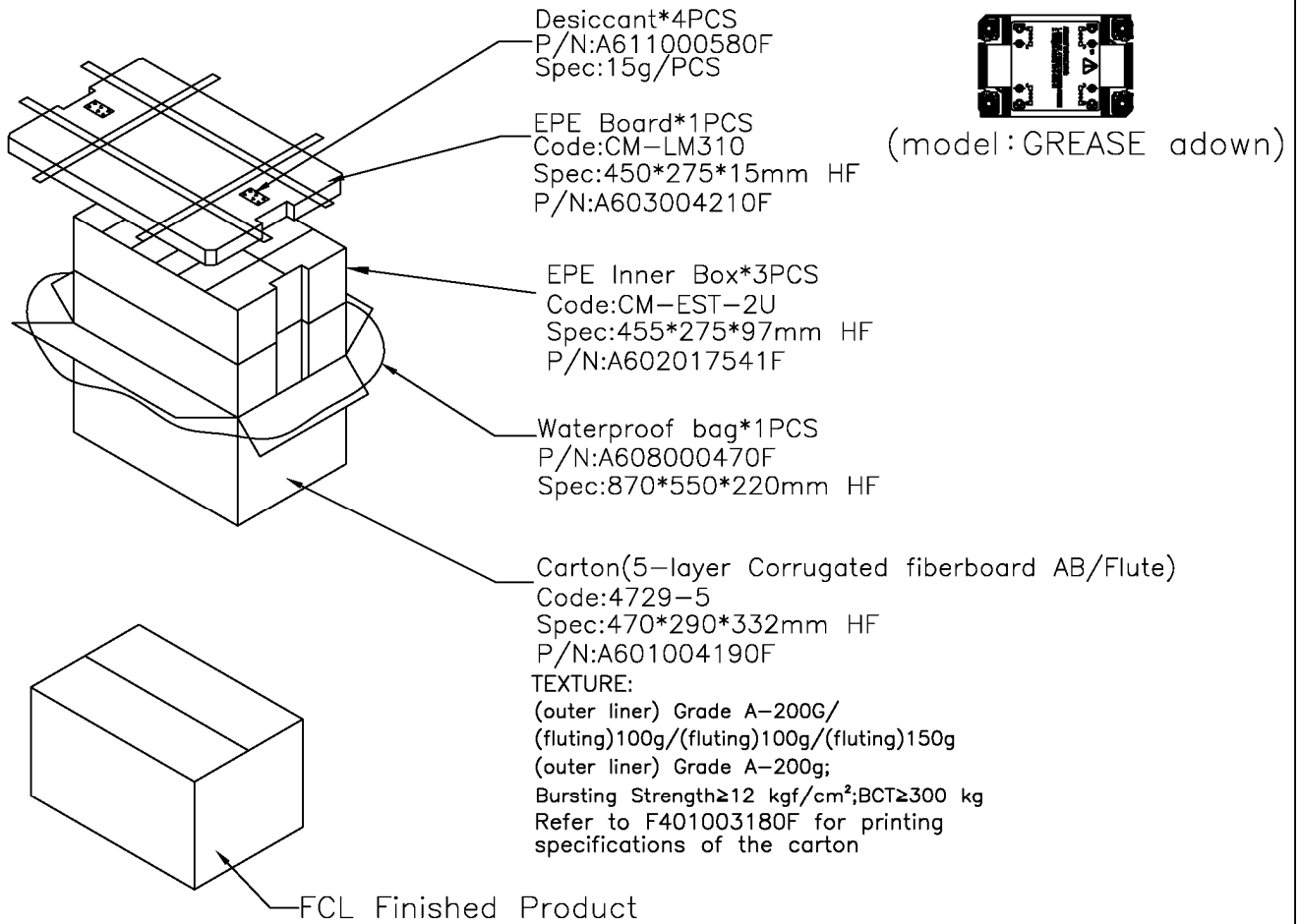


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4.Package



Procedure:

- Step: ① Place the waterproof bag inside the carton, and put desiccants at each corner of the carton.  
 ② Put finished products inside the EPE Inner box, 6 units per tray, 3 trays stacked in total. Place a EPE board on the top, with BOPP tapes for wrapping.  
 ③ Place desiccants at each top corner of the EPE board and organize the bag opening. Finish the packing by sealing the carton with BOPP packing tapes.

Parts and raw materials used in this product shall not contain any prohibited and hazardous substance pertained to <List of Environmental Hazardous Substance Inspection Techniques and Standards> of Sunonwealth Electric Machine Industry Co., Ltd.

注意事項 NOTICE

Applicable Client:  
For Customization  
Applicable Model:  
SM421-21002Y

★: With this mark, inspect the dimension.

SPEC. of MC	P/N of MC	QTY	Cuft	Code	Carton: Corrugate Fiberboard/ EPE Inner Box
470*290*332	A601004190F	18	1.6	4729-5	材 質 MATERIAL

適用範圍  
SCOPE

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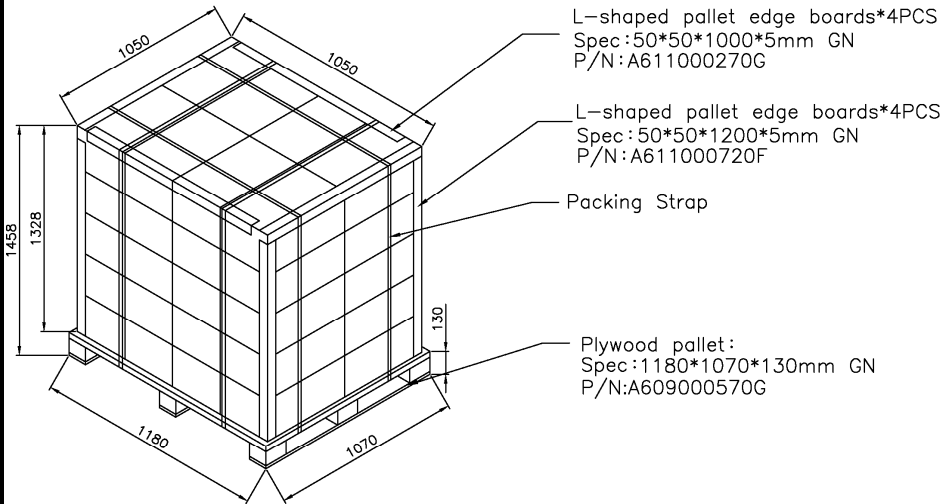
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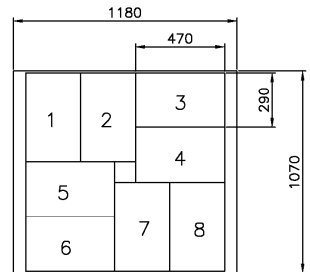
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4.Package



Carton Layout



NOTICE:

1. 8 cartons per layer, 4 layers in total (32 Carton/Pallet).
2. Tightly wrap around the pallet with wrapping films.

NO.	Model	SPEC. of carton	Carton/Pallet	pcs/Carton	pcs/Pallet	N.W	G.W
1.	SM421-21002Y	470*290*332	32	18	576	251	303

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# Notes

## I. SPECIFICATION MODIFICATION

1. SUNON offers engineering assistance on module installation and cooling system design.
2. All changes, modifications and/or revisions to the specifications, if any, are incorporated in the attached specifications.
3. No changes, modifications and/or revisions to these specifications are effective absent agreement, by both SUNON and the customer, in writing.
4. This module will be shipped in accordance with the attached specification unless SUNON and the customer have agreed otherwise, in writing, as specified in Paragraph 3, above.

## II. OTHER

1. DO NOT operate this module in proximity to hazardous materials such as organic silicon, cyanogens, formalin, phenol, or corrosive gas environments including, but not limited to, H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, or Cl<sub>2</sub>.
2. Unless otherwise noted, all testing of this module is conducted at 25°C ambient temperature and sixty-five percent (65%) relative humidity.
3. DO NOT store this module in an environment with high humidity. This module must be stored in accordance with the attached specifications regarding storage temperature. If this module is stored for more than 6 months, SUNON recommends functional testing before using.
4. SUNON reserves the right to use components from multiple sources at its discretion. The use of components from other sources will not affect the specifications as described herein.

## III. WARRANTY

This module is warranted against all defects which are proved to be fault in our workmanship and material for one year from the date of our delivery. The sole responsibility under the warranty shall be limited to the repair of the module or the replacement thereof, at SUNON's sole discretion. SUNON will not be responsible for the failures of its module due to improper handling, misuse or the failure to follow specifications or instructions for use. In the event of warranty claim, the customer shall immediately notify SUNON for verification. SUNON will not be responsible for any consequential damage to the customer's equipment as a result of any module proven to be defective.

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## Declaration of Restricted Materials

### Control declaration of environment- related substances/ materials

1. In accordance with the Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU and specific market requirements, SUNON Halogen-Free Product have complied with law and discipline not to employ the forbidden substances, and restrict the allowable concentration of some limited substances deliberately in our components.

No	Substance	Criteria	
1	CFCs & HCFCs (ozone depleting substances)	Forbidden	
2	Chlorinated Organic Solvent	Forbidden	
3	Lead and its compounds	Plastic (Frame, Impeller, wire harness, etc.)	<100ppm
		Solder	<1000ppm
		Steel alloy	<3500ppm
		Aluminium alloy	<4000ppm
		Copper alloy	<4wt%
4	Cadmium and its compounds	Solder	<20ppm
		Parts composed of metals containing zinc (e.g. brass, zinc for die casting)	<100ppm
		Plastic	<5ppm
5	PBBs and PBDEs	Forbidden	
6	PCB and PCT	Forbidden	
7	CP, Short-chain Chlorinated paraffins C10-13, Cl $\geq$ 48 wt%	Forbidden	
8	Mirex	Forbidden	
9	PCN	Forbidden	
10	Hexavalent Chromium compounds	<100ppm	
11	Mercury and its compounds	Forbidden	
12	Asbestos	Forbidden	
13	Organic Tin compounds	Forbidden	
21	Azo compounds	Forbidden	
15	TBBP-A in external case plastic parts of products (PCB is exempted)	<1000ppm	
16	Nickel in external case parts, which are likely to result in prolonged skin exposure	<1000ppm	
17	Hexabromocyclododecane (HBCDD)	<1000ppm	
18	Di-butyl Phthalate (DBP)	<1000ppm	
19	Benzyl butyl Phthalate (BBP)	<1000ppm	
20	Di-ethylhexyl Phthalate (DEHP)	<1000ppm	
21	Di-isobutyl Phthalate (DIBP)	<1000ppm	
22	Brominated/chlorinated flame retardants (other than PBBs or PBDEs), applicable item: frame, bobbin, impeller, lear wire, connector, mylar insulator.	Br<900ppm Cl<900ppm Br+Cl<1500ppm	
23	PAHs and its 16 compounds in unusual contact material	BaP < 20ppm Total <200ppm	
24	PCB and electroplating material, PFOS content complied with 2006/122/EC	PFOS $\leq$ 1000ppm; coating material PFOS $\leq$ 1 $\mu$ g/m <sup>2</sup>	

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