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Ningbo Ginlong Technologies Co., Ltd. **Applicant** 

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Zhejiang, 315712, P.R. China

Manufacturer Ningbo Ginlong Technologies Co.,Ltd.

**Address** No. 57 Jintong Road, Seafront(Binhai) Industrial Park, Xiangshan, Ningbo,

Zhejiang, 315712, P.R. China

Sample Name Solis-30K

Model/Type Solis-20K、Solis-25K、Solis-30K、Solis-36K-HV、Solis-40K-HV

URE-20K、URE-25K、URE-30K、URE-36K-HV、URE-40K-HV

**Received Date** Mar. 16, 2016

**Testing Period** Mar. 17, 2016~ Mar. 24, 2016

Low Temperature Test; High Temperature Test; **Test Item** 

Thermal Shock Test; Temperature and Humidity Storage Test

**Testing Requested** IEC60068-2-1-2007; IEC60068-2-2-2007;

IEC60068-2-14-2005; IEC60068-2-30-2009

**Testing Results** Please refer to page 3, 6, 9, 12.

> Signed for and on behalf of EMTEK (Shenzhen) Coultde

Inspected engineer

Reviewed by:

Shine

Reviewed engineer

Approved by:

Lewis Authorized signatory

Apr. 08, 2016





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### **Tested Sample:**

Sample No.	Sample Name	Model/Type	Quantity
EM160105006RE003-001	Solis-30K	Solis-20K、Solis-25K、Solis-30K、 Solis-36K-HV、Solis-40K-HV URE-20K、URE-25K、URE-30K、 URE-36K-HV、URE-40K-HV	1 PC

## **Test Sequence:**

Test Sequence	Test Item	Sample No.	
1	Low Temperature Test		
2	High Temperature Test	004	
3	Thermal Shock Test	001	
4	Temperature and Humidity Storage Test		





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## **Test Item 1: Low Temperature Test**

### (1) Test Equipment:

Name	Model	Serial No.	Valid Date to
Temperature & Humidity Test Chamber	DSW1440	ER-005	May. 24, 2016

(2) Environmental Conditions: Temperature: 23.5°C; Humidity: 56%RH

(3) Test Sample: EM160105006RE003-001

(4) Reference Standard: IEC60068-2-1-2007

(5) Test Conditions:

Low Temperature Test:  $-25^{\circ}\text{C} \rightarrow -30^{\circ}\text{C} \rightarrow -35^{\circ}\text{C} \rightarrow -40^{\circ}\text{C} \rightarrow -45^{\circ}\text{C} \rightarrow -50^{\circ}\text{C}$ 

Each temperature is maintained at 4 hours, and at the end of each temperature point, start the machine, and it is fully loaded with 10mins.

(6) Acceptance Criteria: Appearance and function.

(7) Test Results: After the test, there was no change on the appearance of sample. Function was normal.

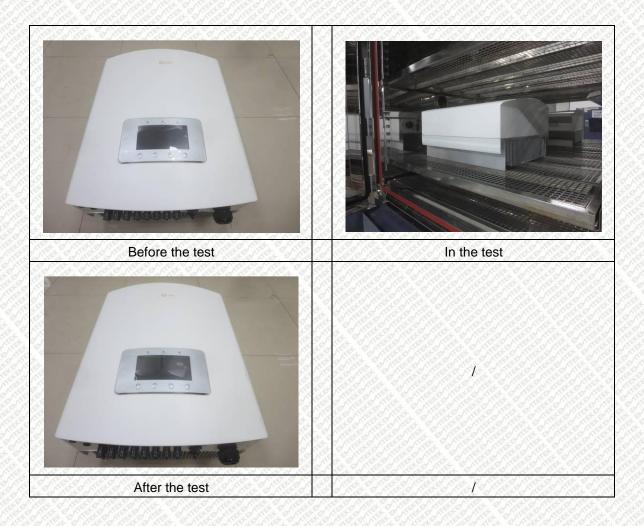
(8) Test Photos and Curves Refer to Appendix





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### **Appendix: Low Temperature Test Photos**

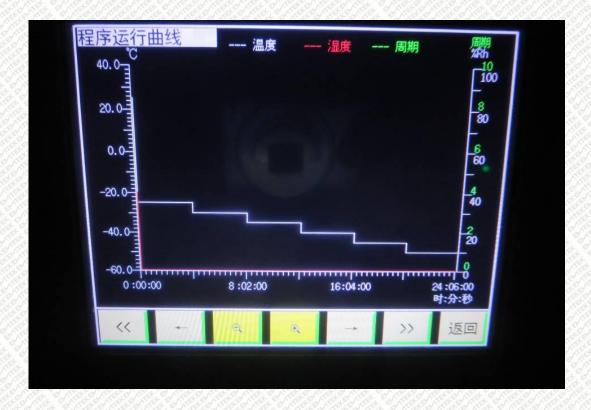






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### **Appendix: Low Temperature Test Curves**







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### **Test Item 2: High Temperature Test**

### (1) Test Equipment:

Name	Model	Serial No.	Valid Date to
Temperature & Humidity Test Chamber	DSW0240	ER-011	Jul. 09, 2016

(2) Environmental Conditions: Temperature: 23.5°C; Humidity: 56%RH

(3) Test Sample: EM160105006RE003-001

(4) Reference Standard: IEC60068-2-2-2007

(5) Test Conditions:

Sample status: Inverter full load working with thermal sensor removed.

High Temperature Test: 60°C, 72 hours

(6) Acceptance Criteria: Appearance and function.

(7) Test Results: After the test, there was no change on the appearance of sample. Function was normal.

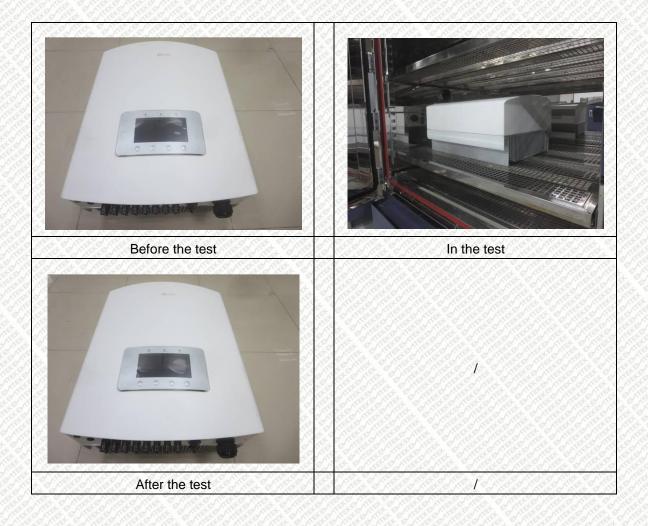
(8) Test Photos and Curves Refer to Appendix





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### **Appendix: High Temperature Test Photos**







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**Appendix: High Temperature Test Curves** 







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#### **Test Item 3: Thermal Shock Test**

### (1) Test Equipment:

Name	Model	Serial No.	Valid Date to
Temperature thermal shock chamber	TS300	ER-007	May. 06, 2016

(2) Environmental Conditions: Temperature: 23.5°C; Humidity: 56%RH

(3) Test Sample: EM160105006RE003-001

(4) Reference Standard: IEC60068-2-14-2005

(5) Test Conditions:

Sample status: Inverter full load working.

Thermal Shock Test:

a)  $-25^{\circ}$ C, keep 1h  $\rightarrow$  60°C, keep 1h

b) Cycling 36 times, a total of 72 hours

c) Temperature conversion time: <10s

(6) Acceptance Criteria: Appearance and function.

(7) Test Results: After the test, there was no change on the appearance of sample. Function was normal.

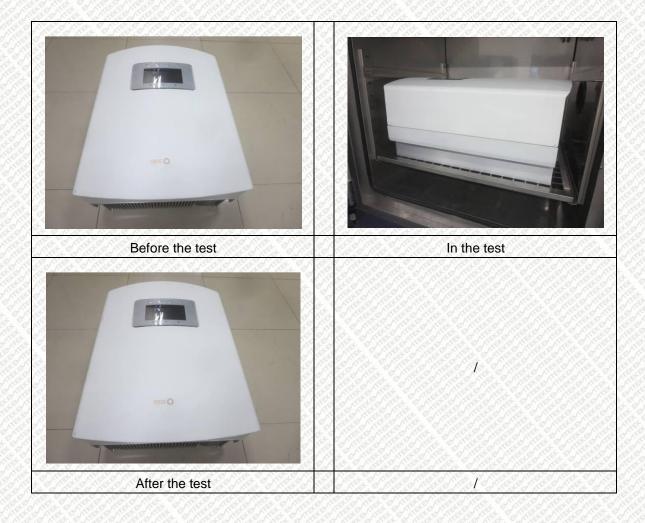
(8) Test Photos and Curves Refer to Appendix





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### **Appendix: Thermal Shock Test Photos**

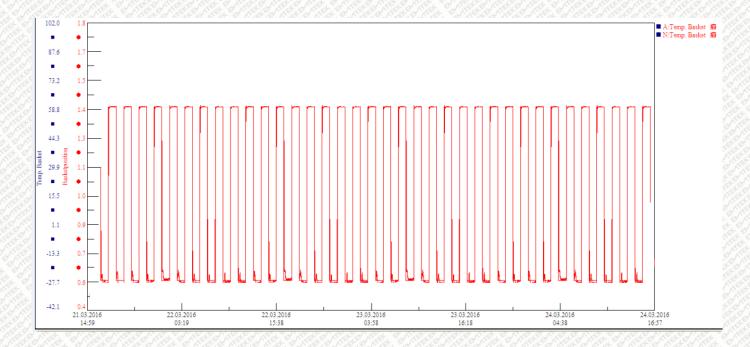






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## **Appendix: Thermal Shock Test Curves**







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### **Test Item 4: Temperature and Humidity Storage Test**

### (1) Test Equipment:

Name	Model	Serial No.	Valid Date to
Rapid temperature change test chamber	QW0570P2W10	ER-069	May. 24, 2016

(2) Environmental Conditions: Temperature: 23.5°C; Humidity: 56%RH

(3) Test Sample: EM160105006RE003-001

(4) Reference Standard: IEC60068-2-30-2009

(5) Test Conditions:

Sample status: Non working status

Temperature and Humidity Storage Test: 75℃, 98%RH, keep 120 hours

(6) Acceptance Criteria: Appearance and function.

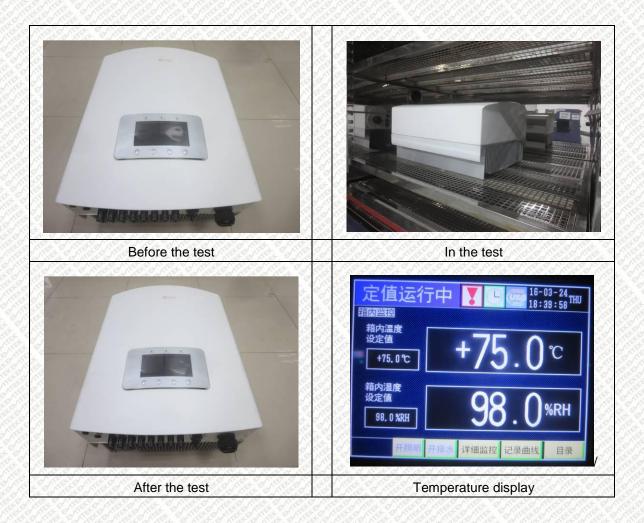
(7) Test Results: After the test, there was no change on the appearance of sample. Function was normal.

(8) Test Photos and Curves Refer to Appendix



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### **Appendix: Temperature and Humidity Storage Test Photos**



### \*\*\* End of Report \*\*\*

