

Technical Report No.: 70.409.20.011.03-00

Date: 2020-10-29

Client: Huawei Technologies Co., Ltd.
Address: Administration Building Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, 518129 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

Manufacturing place: Huawei Machine Co., Ltd.
No. 2 City Avenue, Songshan Lake Sci. & Tech. Industry Park, 523808 Dongguan, Guangdong, PEOPLE'S REPUBLIC OF CHINA

Test subject: Product: Solar Inverter
Type: SUN2000-100KTL-M1

Test specification: Draft standard IEC 63027 ED1, 82/1636/CDV
DC arc detection and interruption in photovoltaic power systems

Purpose of examination: • (Visual / Partial -) inspection according to the test specification

Test result: The test result show that the presented product is in compliance with the specific requirements.

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1. Description of the test subject

1.1 Function

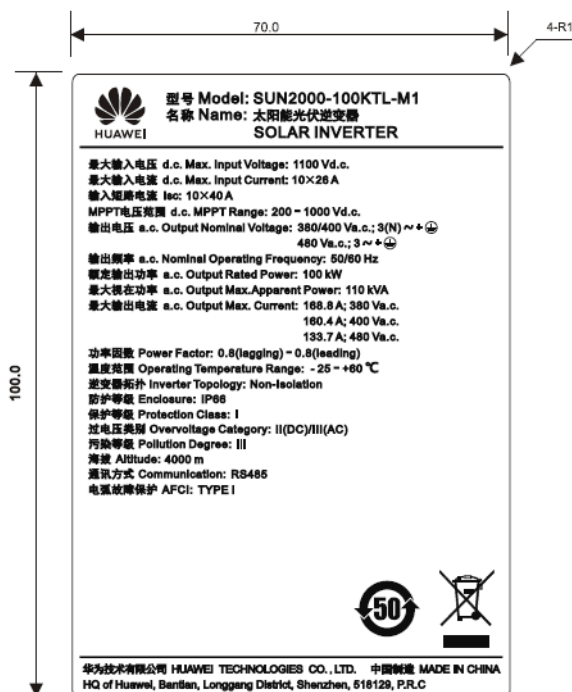
These devices are transformer-less grid-connected PV inverter which converts direct current optimized by photovoltaic DC conditioner to alternating current, and they are intended to be connected in parallel with the public distribution grid directly or via step-up transformer. In addition, the inverter is integrated with DC arc fault detection and interruption function. They are intended for professional incorporation into PV system, and they are assessed on a component test basis.

Firmware version of SUN2000-100KTL-M1 related to AFCI function: V500R001

1.2 Consideration of the foreseeable use

- Not applicable
- Covered through the applied standard
- Covered by the following comment
- Covered by attached risk analysis

1.3 Technical Data



Note: inverter marking only, a separated marking regarding to arcing characteristic should be provided on inverter as well according to draft standard IEC 63027 ED1, 82/1636/CDV

2. Order

2.1 Date of Purchase Order, Customer's Reference

2020-07-14

2.2 Receipt of Test Sample, Condition, Location

2020-09-27

2.3 Date of Testing **Witness tested by TUV SUD engineer from 2020-09-27 to 2020-10-25**

2.4 Location of Testing **Huawei Technologies Co., Ltd.**
 No.901, Tang Lu Road, Pudong New District, Shanghai, P.R.C.

2.5 Points of Non-Compliance or Exceptions of the Test Procedure

N/A

3. Test Results

As requested by manufacturer, only series arc fault test and reconnection test were conducted at this stage. The other requirements and tests which are applicable, will be involved at next stages, and test report should be issued accordingly.

Full test was conducted on representative mode SUN2000-100KTL-M1.

Clause	Requirement - Test	Measurement result - remark	P
4	Classification		P
4.1	According to the protection coverage		P
	Two types of classification are defined:		P
	Code: F; AFP is provided from the PV modules up to the inverter input terminals. (Full coverage)		P
	Code: P; AFP is provided from the PV modules up to the parallel connection of the strings. No AFP is provided for wiring between the parallel connection and the inverter input terminals. (Partial coverage)		N/A



3.1 Points of Non-Compliance according to the test specification

- N/A

4. Remark

- N/A

5. Documentation

- Not available at this stage

6. Summary

“The test specification(s) is (are) met” for which are evaluated at this stage.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Tested by:

Shan Huang *Shan Huang*

printed name, function & signature

Approved by:

Kai Zhao *Kai Zhao*

printed name, function & signature

