



TEST REPORT

IEC 61727 / IEC 62116

Photovoltaic (PV) systems
 Characteristics of the utility interface
 Test procedure of islanding prevention measures for
 utility-interconnected photovoltaic inverters

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| Report reference number | PVTH170510N054-R2 |
| Date of issue | 2017-06-14 |
| Testing laboratory name | Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch |
| Address | No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China |
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| Applicant's name | Huawei Technologies Co., Ltd. |
| Address | Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C |
| Test specification | |
| Standard | IEC 61727:2004, IEC 62116:2008, Deviations for Thailand according the grid-connected inverter regulations of the Provincial Electricity Authority (PEA:2016) |
| Certificate | Certificate of compliance |
| Test report form number | IEC 61727 |
| Master TRF | Bureau Veritas Consumer Products Services Germany GmbH |
| Test item description | Grid-tied photovoltaic inverter |
| Trademark |  HUAWEI |
| Model / Type | SUN2000-36KTL |
| Ratings | See below |
| MPP DC voltage range [V] | 480-850V |
| Input DC voltage range [V] | 200-1000 |
| Input DC current [A] | Max. 22,0 x 4 |
| Output AC voltage [V] | 380, 3N + PE, 50Hz |
| Output AC current [A] | Max. 60,8 x3 |
| Output power [W] | 36000 |

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| Testing Location | Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch |
| Address | No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China |
| Tested by (name and signature)..... | James Huang  |
| Approved by (name and signature)..... | Ted Wu  |
| Manufacturer's name | Huawei Technologies Co., Ltd. |
| Factory address | Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C |

| Document History | | | |
|-----------------------------------|---------------------------|--|-----------------|
| Date | Internal reference | Modification / Change / Status | Revision |
| 2017-05-18 | James Huang | Initial report was written | 0 |
| 2017-05-24 | James Huang | This report is replaced the original test report PVTH170510N054, the modifications in this report are: 1, Update the trip value for Under and Over Voltage Protection. 2, Update the trip value for Under and Over Frequency Protection. 3, Update the test result of Low voltage fault Ride through capability at $P > 0,9P_n$ condition. 4, Add the test results of Harmonic Voltage Limit Test. | R1 |
| 2017-06-14 | James Huang | This report is replaced the original test report PVTH170510N054-R1, the modifications in this report is: 1, Correct the test results of 5.2.1 Voltage monitoring, the first level for over voltage, the second level for over voltage and under voltage. | R2 |
| Supplementary information: | | | |

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| Test items particulars |
| Equipment mobility..... : Permanent connection Operating condition..... : Continuous Class of equipment..... : Class I Protection against ingress of water.. : IP65 according to EN 60529 |
| Test case verdicts |
| Test case does not apply to the test object..... : N/A Test item does meet the requirement..... : P(ass) Test item does not meet the requirement..... : F(ail) |
| Testing |
| Date of receipt of test item..... : 2017-05-10 Date(s) of performance of test..... : 2017-05-10 to 2017-05-24 |
| General remarks: The test result presented in this report relate only to the object(s) tested. This report must not be reproduced in part or in full without the written approval of the issuing testing laboratory. "(see Annex #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator. The IEC61727 does not provide any limits of accuracy for the utility voltage and frequency measurement of the PV-system. Therefore the values for tolerances given in EN 50438, Table 2 are used. Tolerances on trip values tabel 2 EN50438: - Voltage: +/- 1% of the nominal voltage - Frequency: +/- 0,5% of the nominal frequency - Clearance time: +/- 10% |
| This Test Report consists of the following documents: |
| 1. Test Results 2. Annex No. 1 –Test equipment list |