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# Type Certificate

**Applicant:** Huawei Technologies Co., Ltd.  
**Address:** Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129 P.R. China

<b>Type of power generating unit:</b> <b>Technical data:</b>	<b>Grid-tied photovoltaic inverter</b>	<b>SUN2000-105KTL-H1</b> (for details on further certified PGUs see <i>Supplement of Certificate</i> )
	Rated active power:	105 kW
	Rated apparent power:	105 kW
	Max. apparent power:	116 kVA
	Nominal voltage:	800 V (3~ + PE)
	Nominal frequency:	50 Hz
<b>Firmware version:</b>	<b>V200R001D001 or higher</b>	

<b>Validated type model:</b>	Model file:	Huawei_20-0313_0_TR4_SUN2000-90-105KTL_V1.zip
	Identification number (MD5):	ee6b20206954a88e35eece89df0bd434

**Grid connection regulation:** **VDE-AR-N 4110:2018-11** – Technical requirements for the connection and operation of customer installations to the medium voltage network (TCR medium voltage) [1]  
**VDE-AR-N 4120:2018-11** – Technical requirements for the connection and operation of customer installations to the high voltage network (TCR high voltage) [2]

**Pertinent standards / Guidelines:** Technical guidelines: FGW TR 3 Rev. 25 [3], FGW TR 4 Rev. 09 [4], FGW TR 8 Rev. 09 [5]

The power generating units, stated in the certificate, were tested and certified according to the technical guidelines referenced to the grid connection regulation. The electrical characteristics fulfil the requirements of the grid connection regulation:

- Quasi-steady-state operation
- Dynamic network stability (reactive current characteristic according to TCR medium voltage & TCR high voltage)
- Active power output and network security management
- Active power adjustment as a function of the grid frequency
- Protection technology and protection settings on generating unit level (Note in annex p.65) \*
- Power quality

There are no restrictions or deviations. (\* A connecting terminal plate has to be installed separately if necessary.)  
The manufacturer has provided proof of certification of the quality management system of his production facility in accordance with ISO 9001

**The certificate includes the following information:**

- technical data of the power generating unit, the auxiliary equipment used and the software version used;
- schematic structure of the power generating units;
- summarized information on the properties of the power generating unit.

The certificate is comprised of 100 pages (including Annex of 98 pages).

**BV project number** : 18TH0387  
**Certificate no.** : 20-0313\_0  
**Issued** : 2020-05-20  
**Certification scheme** : NSOP-0032-DEU-ZE-V01  
**Valid until** : 2025-05-19



Certification body of Bureau Veritas Consumer Products Services Germany GmbH accredited according to DIN EN ISO/IEC 17065  
A partial representation of the certificate requires the written approval of Bureau Veritas Consumer Products Services Germany GmbH



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## Supplement of Certificate (20-0313\_0)

Type of power generating unit:

Grid-tied photovoltaic inverter	SUN2000-90KTL-H0 SUN2000-90KTL-H1 SUN2000-90KTL-H2 SUN2000-95KTL-INH0	SUN2000-95KTL-INH1
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Technical data:

Rated active power:	90 kW	90 kW
Rated apparent power:	90 kVA	90 kVA
Max. apparent power:	100 kVA	110 kVA
Nominal voltage:	800 V (3~ + PE)	
Nominal frequency:	50 Hz	

Type of power generating unit:

Grid-tied photovoltaic inverter	SUN2000-100KTL-H1	SUN2000-105KTL-H1
Rated active power:	100 kW	105 kW
Rated apparent power:	100 kVA	105 kVA
Max. apparent power:	105 kVA	116 kVA
Nominal voltage:	800 V (3~ + PE)	
Nominal frequency:	50 Hz	

Technical data:

Firmware version:

V200R001D001 or higher
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The certificate is comprised of 100 pages (including Annex of 98 pages).

BV project number : 18TH0387  
 Certificate no. : 20-0313\_0  
 Issued : 2020-05-20

Certification scheme : NSOP-0032-DEU-ZE-V01  
 Valid until : 2025-05-19

Certification body



Holger Schaffer



Certification body of Bureau Veritas Consumer Products Services Germany GmbH accredited according to DIN EN ISO/IEC 17065

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