



**BUREAU
VERITAS**

Type Certificate

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

Type of power generating unit:	Grid-tied photovoltaic inverter	SUN2000-105KTL-H1 *
Technical data:	Nominal apparent power:	105 kVA *
	Nominal active power	<i>see nominal apparent power *</i>
	Max. active power: ($\cos\phi = 0,95$; $U = 0,95 U_n$)	105,8 kW *
	Nominal voltage:	800 V (3P+ PE)
	Nominal frequency:	50 Hz

Firmware version: **V200R001**
Grid connection regulation: **VDE-AR-N 4120:2015-01**
Technical requirements for the connection and operation of customer installations to the high-voltage network (TCC High-Voltage)
Pertinent standards / Guidelines: DIN EN 61400-21:2008
Technical guidelines: FGW TG 3 Rev. 24, FGW TG 4 Rev. 8, FGW TG 8 Rev. 8

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

- Generation and control of active and reactive power
- Generating unit's reaction to system incidents (Reactive current characteristic according to TCC High-Voltage)
- Protection on generating unit level (Note in appendix p.74) **
- Report of power quality
- Validated type model: Huawei_18-0528_0_TR4_SUN2000-xxxKTL_V1

The manufacturer has proven the certification of his quality management system according to ISO 9001.

* : For details see supplement of certificate.

** : A connecting terminal plate has to be installed separately if necessary.

The certificate includes the following information:

- Technical data of the power generating units, additional components and implemented software versions
- The schematic layout of the power generating units
- Summarized information on the characteristic of the power generating units

BV project number: 18TH0387
Certificate no.: 18-0528_1
Issued: 2018-11-23 **Valid until:** 2023-10-21

Certification body

Holger Schaffer



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(p. 1 of 134)



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Supplement of Certificate (18-0528_1)

Unit / Type..... :	SUN2000-90KTL-H0 SUN2000-90KTL-H1 SUN2000-90KTL-H2 SUN2000-95KTL-INH0	SUN2000-95KTL-INH1
Maximum apparent output power [kVA] . :	100 *	110 *
Nominal apparent output power [kVA]..... :	90	90
Maximum active output power [kW] :	100 *	110 *
Nominal active output power [kW]..... :	90	90
Max. active power ($\cos\phi = 0,95$; $U = 0,95 U_n$) [kW]..... :	91,2 **	100,3 **
Nominal output AC voltage [V] :	800 V (3 phases + PE)	
Nominal frequency [Hz]..... :	50	

Unit / Type..... :	SUN2000-100KTL-H1	SUN2000-105KTL-H1
Maximum apparent output power [kVA] . :	105 *	116 *
Nominal apparent output power [kVA]..... :	100	105
Maximum active output power [kW] :	105 *	116 *
Nominal active output power [kW]..... :	100	105
Max. active power ($\cos\phi = 0,95$; $U = 0,95 U_n$) [kW]..... :	99,8 **	105,8 **
Nominal output AC voltage [V] :	800 V (3 phases + PE)	
Nominal frequency [Hz]..... :	50	

Note:

* The units in the series provide overload capacity (see technical data of the units above).

** The stated active power is the maximum active power can be provided under the condition of $\cos\phi = 0,95$ and $U = 0,95 U_n$. The output power can be limited (for details see p. 34).

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(p. 2 of 134)