



# Type Certificate

**Applicant:** **Huawei Technologies Co., Ltd.**  
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|                                       |                                                              |                                     |
|---------------------------------------|--------------------------------------------------------------|-------------------------------------|
| <b>Type of power generating unit:</b> | <b>Grid-tied photovoltaic inverter</b>                       | <b>SUN2000-105KTL-H1 *</b>          |
| <b>Technical data:</b>                | Nominal apparent power:                                      | 105 kVA *                           |
|                                       | Nominal active power                                         | <i>see nominal apparent power *</i> |
|                                       | Max. active power:<br>( $\cos\phi = 0,95$ ; $U = 0,95 U_n$ ) | 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 /** DIN EN 61400-21:2008

**Guidelines:** 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**

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## Supplement of Certificate (18-0528\_1)

| Unit / Type..... :                                                      | SUN2000-90KTL-H0<br>SUN2000-90KTL-H1<br>SUN2000-90KTL-H2<br>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<br>( $\cos\phi = 0,95$ ; $U = 0,95 U_n$ ) [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<br>( $\cos\phi = 0,95$ ; $U = 0,95 U_n$ ) [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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