



**BUREAU
VERITAS**

Type Certificate

Applicant: SMA Solar Technology AG
Sonnenallee 1
34266 Niestetal
Germany

Type of power generating unit:	Grid-tied photovoltaic inverter	STP 50-40 (Sunny Tripower Core1)
Technical data:	Nominal apparent power:	50,0 kVA
	Nominal active power	<i>see nominal apparent power</i>
	Active power: ($\cos\varphi = 0,95$; $U = 0,95 U_n$)	45,1 kW
	Nominal voltage:	400 / 230 V (3 phases + (N) + PE)
	Nominal frequency:	50 Hz

Firmware version: 01.03.04R

Grid connection regulation: BDEW guideline „Generating Plants connected to the Medium-Voltage Network“
Guideline for generating plants' connection to and parallel operation with the medium-voltage network, 2008 and amendment up to 1/2013

Pertinent standards / DIN EN 61400-21:2008

Guidelines: Technical guidelines: FGW TG 3 Rev. 24, FGW TG 4 Rev. 8, FGW TG 8 Rev. 7

The power generating unit, stated in the certificate, was 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 TransmissionCode 2007)
- Protection on generating unit level (the unit does not provide a connecting terminal plate)*
- Report of power quality
- Validated type model: SMASTP_L_V1P0_1e_Pf16_Lib.pfd

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

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

The certificate includes the following information:

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

BV project number: 17TH0199

Certificate no.: 17-0590_0 **

Issued: 2017-11-06 **Valid until:** 2022-11-05

** English translation of the cover page of certificate 17-0590_0 issued in German

Certification body

Holger Schaffer

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