SMA Solar Technology AG | Sonnenallee 1 | 34266 Niestetal | Germany
Phone: +49 561 9522-0 | Fax: +49 561 9522-100 | Internet: www.SMA.de | E-mail: info@SMA.de
Amtsgericht (District court) Kassel HRB (registration number) 3972
Vorsitzender des Aufsichtsrats (Chairman of the Supervisory Board): Uwe Kleinkauf
Vorstand (Managing Board): Dr.-Ing. Jürgen Reinert, Thomas Pixa

Manufacturer's Declaration
MPP Current of the PV Array

The current values of contemporary PV modules keep increasing. One reason for this is the larger cells, as their surface determine the current. SMA inverters are highly suitable for these PV modules as well. The current values in the event of a short circuit and at the MPP (maximum power point) have to be taken into account when selecting an inverter.

The datasheet and manual of the inverter list the **maximum short-circuit current** for each PV input. On the type label, this value is designated as "**I SC PV**". To ensure electrical safety and maintain the validity of the warranty, the specified value must be strictly observed. Taking into account the short-circuit current of the PV modules used and reductions or increases resulting from the PV system (e.g. alignment, solar irradiation, temperature), the value determined for the PV array has to be lower than the limiting value of the inverter.

The **maximum input current** given in the datasheet and in the manual of the inverter is the current that the inverter can receive from the PV array. On the type label, this value is designated as "**I DC max**". This value is not a safety-relevant specification, but instead provides information about the capacity of the inverter that limits the current of the PV array to this value. It is therefore permitted for the MPP current of the PV array to be greater than the maximum input current of the inverter. The possible affects on the yield can e.g. be calculated with Sunny Design.

The warranty of the downstream inverters is thus not affected if the maximum input current of the inverter is exceeded by the MPP current of the PV array:

- SB1.5-1VL-40 / SB2.0-1VL-40 / SB2.5-1VL-40
- SB3.0-1AV-41 / SB3.6-1AV-41 / SB4.0-1AV-41 / SB5.0-1AV-41 / SB6.0-1AV-41
- SB3.0-1SP-US-41 / SB3.8-1SP-US-41 / SB5.0-1SP-US-41 / SB6.0-1SP-US-41 / SB7.0-1SP-US-41 / SB7.7-1SP-US-41
- STP3.0-3AV-40 / STP4.0-3AV-40 / STP5.0-3AV-40 / STP6.0-3AV-40 / STP8.0-3AV-40 / STP10.0-3AV-40
- STP5.0-3SE-40/ STP6.0-3SE-40/ STP8.0-3SE-40/ STP10.0-3SE-40
- STP 50-41 / STP 50-40 / STP 50-JP-40
- STP 33-US-41 / STP 50-US-41 / STP 62-US-41
- STP 15000TL-30 / STP 20000TL-30 / STP 25000TL-30
- STP 12-50 / STP 15-50 / STP 20-50 / STP 25-50
- STP 20-US-50 / STP 25-US-50 / STP 30-US-50
- STP 25000TL-JP-30
- SHP 75-10
- STP 110-60

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SMA Solar Technology AG

i.V. Sven Bremicker

i.V. Sven Bremicker
Head of Technology Development Center