For England only: Compliance with G83/2

STP 5000TL-20 / 6000TL-20 / 7000TL-20 / 8000TL-20 / 9000TL-20

As of March 1, 2014, the requirements of the English G83/2 standard will be effective for all new PV systems in England.

In order to operate one of the above listed inverters in England, which is currently set to the G83/1-1 standard and not equipped with the country data set G83/2 by default, several parameters of the inverter must be set after commissioning to meet the requirements of the G83/2 standard. Only qualified persons are allowed to set the parameters.

As of April 2014, the above listed inverters will be delivered ex works with a new firmware version including the country data set G83/2. Setting the parameters will then be no longer required.

Requirements:

- ☐ The current inverter firmware contains the country data set G83/1-1.
- ☐ The inverter must be registered in a communication product.
- ☐ Depending on the communication product and the type of communication, a computer with *Bluetooth* or Ethernet interface must be available.
- ☐ An SMA Grid Guard code must be available (see order form for the SMA Grid Guard code at www.SMA-Solar.com).

Procedure:

1. Call up the user interface of the communication product or start the software and open the PV system as **Installer**.
2. Enter the SMA Grid Guard code or activate the SMA Grid Guard mode (see manual of the communication product).
3. Make sure that the parameter **Set country standard** is set to **G83/1-1**.
4. Select the following parameters for voltage monitoring:

Parameter name for RS485	Parameter name for *Bluetooth* or Speedwire/ Webconnect	Default value as per G83/1-1	Value to be set as per G83/2
VolCtl.hhLim	Voltage monitoring median maximum threshold	280 V	276.5 V
VolCtl.hhLimTms	Voltage monitoring median maximum threshold trip.time	10,000 ms	560 ms
VolCtl.hLim	Voltage monitoring lower maximum threshold	264 V	265 V
VolCtl.hLimTms	Voltage monitoring lower maximum threshold trip.tiime	5,000 ms	1,060 ms

Parameter name for RS485	Parameter name for *Bluetooth* or Speedwire/ Webconnect	Default value as per G83/1-1	Value to be set as per G83/2
VolCtl.lLim	Voltage monitoring lower minimum threshold	207 V	197.3 V
VolCtl.lLimTms	Voltage monitoring lower minimum threshold trip.time	5,000 ms	2,560 ms
VolCtl.llLim	Voltage monitoring of median minimum threshold	45 V	181.2 V
VolCtl.llLimTms	Voltage monitoring of median minimum threshold trip.time	10,000 ms	560 ms

5. Select the following parameters for frequency monitoring:

Parameter name for RS485	Parameter name for *Bluetooth* or Speedwire/ Webconnect	Default value as per G83/1-1	Value to be set as per G83/2
FrqCtl.hhLim	Frequency monitoring upper maximum threshold	65 Hz	52.1 Hz
FrqCtl.hhLimTms	Frequency monitoring upper maximum threshold trip.time	10,000 ms	565 ms
FrqCtl.hLim	Frequency monitoring lower maximum threshold	50.5 Hz	51.6 Hz
FrqCtl.hLimTms	Frequency monitoring lower maximum threshold triptime	5,000 ms	90,000 ms
FrqCtl.lLim	Frequency monitoring upper minimum threshold	47 Hz	47.4 Hz
FrqCtl.lLimTms	Frequency monitoring upper minimum threshold trip.time	5,000 ms	20,065 ms
FrqCtl.llLim	Frequency monitoring lower minimum threshold	44 Hz	46.9 Hz
FrqCtl.llLimTms	Frequency monitoring lower minimum threshold trip.time	300,000 ms	565 ms

6. Select the following parameters for islanding detection:

Parameter name for RS485	Parameter name for *Bluetooth* or Speedwire/ Webconnect	Default value as per G83/1-1	Value to be set as per G83/2
Aid.AsymDetMax	Permissible grid unbalance of islanding detection	10	1
Aid.AsymDetMaxT	Trip.time of islanding detection unbalance detect.	5,000 ms	500 ms
Aid.HzMon.Tmms	Tripping time of islanding detection frq. monitor	5,000 ms	500 ms

7. Set the following parameters for the (re-) connection time:

Parameter name for RS485	Parameter name for *Bluetooth* or Speedwire/ Webconnect	Default value as per G83/1-1	Value to be set as per G83/2
GriFltMonTms	Reconnection time upon grid interruption	180	20
GrdFltReConTms	Reconnection time upon short interruption	180	20

8. Record all changes (e.g on the supplementary sheet with the default settings).

☑ The changes are recorded in the communication product and the data is transferred to the inverter. The saving process can take several hours if the inverter is in night mode. The data is stored in the main memory when starting the inverter and the display shows "Adj" (adjusted) as country data set.