

VDE Prüf- und Zertifizierungsinstitut GmbH • Merianstraße 28 • D-63069 Offenbach

Stefan Haupt  
Senior Product Manager Solar Modules

SolarWorld AG  
Martin-Luther-King-Straße 24

53175 Bonn



Offenbach, 2011-07-14

Your ref.  
5005440

Your letter  
13.07.2011

Our ref. - please indicate  
FG82/rot

Contact  
Mr. Roth  
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Dear Mr. Haupt,

regarding your request concerning the requirements for issuing a VDE-licence for an electrical product or component, I can give you the following information.

The base is our PM 102-Testing and Certification procedure (attached as a pdf file).

For a VDE-certificate a successfully passed test in accordance with the relevant DIN VDE, EN, or IEC product standard is mandatory. Further more VDE requires a 100% routine test at the end of the line. The routine tests and requirements for PV-Modules are described in our PM 434 (attached as a pdf file).

Before a VDE-licence is issued, a successfully passed factory inspection at each factory, listed in the certificate, is needed (see PM 102, clause 5.4 and 5.5). To maintain the certificate an annual inspection in each listed factory is needed.

The base for the Inspections is the Document CIG 23, issued by the European Electrical Products Certification Association.

For the identification, in which of the in the VDE-licence 40016336 listed factory location the VDE listed SolarWorld module is manufactured, the following information, given by SolarWorld, are kept on file at VDE:

**a) Product identification code and module factory addresses**

Each module bears an individual serial number, containing:

- a) Manufacturer identification code (digit 1 and 2)
- b) Year of manufacture (digit 3 and 4)
- c) Sequence Number - 0000001 to 9999999 (digit 5 to 11)
- d) Check digit (digit 12)

Serial number:

|   |   |   |   |   |   |   |   |   |    |    |    |
|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| m | m | y | y | s | s | s | s | s | s  | s  | c  |

**Manufacturer addresses in Europe**

Solar Factory GmbH  
Ferdinand Reich Str. 1  
09599 Freiberg  
Germany

**b) Manufacturer identification codes**

Manufacturer and address can be traced by the first two digits of the product identification code as shown in the table below:

| Manufacturer Identification Code | Manufacturer       |
|----------------------------------|--------------------|
| 11, 13, 16                       | Solar Factory GmbH |

**c) Production phases**

Each Module is completely assembled (Cell stringing, layup, lamination, electrical tests) in one of the factories. The movement of semi-finished Modules between the factories is in general not permitted by VDE.

| Crystalline silicon module | Solar Factory GmbH | Eco Supplies Solar AB |
|----------------------------|--------------------|-----------------------|
| Cell stringing             | ✓                  | ✓                     |
| Layup and lamination       | ✓                  | ✓                     |
| Electrical tests           | ✓                  | ✓                     |

I hope these information's are sufficient for you.

Please do not hesitate to contact me if you have further questions.

Best regards

VDE Prüf- und Zertifizierungsinstitut GmbH  
*VDE Testing and Certification Institute*  
Section FG82



Arnd Roth

Attachments (as pdf file): PM102E, PM 434e

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