



**Bureau Veritas Consumer
Products Services
Germany GmbH**

Businesspark A96
86842 Türkheim
Germany
+ 49 (0) 8245 96810-0
cps-tuerkheim@de.bureauveritas.com

Certificate of compliance

Applicant: Sunways AG
Photovoltaic Technology
Macairestraße 3 – 5
78467 Konstanz
Germany

Product: Automatic disconnection device between a generator
and the public low-voltage grid

Model: PT 30K, PT 33K

Use in accordance with regulations:

Automatic disconnection device with three-phase mains surveillance in accordance with DIN V VDE V 0126-1-1:2006-02 for photovoltaic systems with a three-phase parallel coupling via an inverter in the public mains supply. The automatic disconnection device is an integral part of the aforementioned inverter. This serves as a replacement for the disconnection device with insulating function which the distribution network provider can access at any time.

Applied rules and standards:

DIN V VDE V 0126-1-1 (VDE V 0126-1-1):2006-02 and „Generator at the public low-voltage grid, 4th edition 2001, guideline for connection and parallel operation of generators in the public low-voltage grid” with VDN additions (2005) from the German Electricity Association (VDEW) and Association of network operator (VDN).

The safety concept of an aforementioned representative product corresponds at the time of issue of this certificate to the valid safety specifications for the specified use in accordance with regulations.

Report number: 08TH0031-VDE0126
Certificate number: U11-179
Date of issue: 2011-02-24 **Valid until:** 2014-02-24

Achim Hänchen



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akkreditiert nach ISO 17025 durch ZLS
und DaTech

Prüfbescheinigung Certificate

Antragsteller: Sunways AG
Applicant: Photovoltaic Technology
Macairestraße 3 – 5
78467 Konstanz
Deutschland

Produkttyp: Solar Inverter
Product type:

Modell: PT30K IP42 (Indoor) PT33K IP42 (Indoor)
Model: PT30K IP54 (Outdoor) PT33K IP54 (Outdoor)

Leistung:
Ratings:

| | | |
|------------------------|---|---|
| <i>Input voltage:</i> | 420Vdc – 800Vdc, max. 1000Vdc | 460Vdc – 800Vdc, max. 1000Vdc |
| <i>Input current:</i> | 75A | 75A |
| <i>Output Voltage:</i> | 230Vac phase to neutral, 3 phases, N, PE, 50Hz | 230Vac phase to neutral, 3 phases, N, PE, 50Hz |
| <i>Output current:</i> | max. 3x 45A | max. 3x 53A |
| <i>Output power:</i> | 30,0kW | 33,3kW |

Ein repräsentatives Testmuster des o. g. Modells bestand die Prüfung nach
A representative test sample of above stated model passed the tests according to

Norm: IEC 62109-1: 2010 (1st Edition)
Standard:

Berichtsnr.: 08TH0031-62109-1
Report No.:

Zertifikat Nr.: 11-060
Certificate No.:

Datum: 21.03.2011
Issued:

Zertifizierungsstelle
Certification department

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Prüfbescheinigung Certificate

Antragsteller **Sunways AG**
Applicant **Photovoltaic Technology**
 Macairestrasse 3-5
 78467 Konstanz
 Deutschland

Produkttyp **Solar Inverter**
Product type

Modell **PT30K, PT33K**
Model

| Leistung Ratings | PT30K | PT33K |
|------------------------|--|-------------------------------|
| Input Voltage: | 420Vdc – 800Vdc, max. 1000Vdc | 460Vdc – 800Vdc, max. 1000Vdc |
| Input current: | 75A | |
| Output Voltage: | 230Vac phase to neutral, 3 phases, N, PE, 50Hz | |
| Output current: | 3x 45A | 3x 53A |
| Output power: | 30,0kW | 33,3kW |

Ein repräsentatives Testmuster des o.g. Modells bestand die Prüfung nach
A representative Test sample of above stated model passed the tests according to

Norm IEC 62103:2003 and EN 50178:1997 extended to the requirements of
Standard DRAFT IEC 62109-1:2003 and DRAFT IEC 62109-2:2005

Berichtsnr. 08TH0031-IEC62109
Report No.

Zertifikat Nr. **09-212**
Certificate No.

Datum 07.10.2009
Issued

Zertifizierungsstelle
Certification department

A. Hänchen

CE Declaration of Conformity

We herewith declare that the following products are in accordance with the provisions of the EMC directive 2004/108/EC and the EC low voltage directive 2006/95/EC as well as the other below-mentioned norms.



| Norm | Description of the norm | NT 2500, NT 2600, NT 3000, NT 3700, NT 4000, NT 4200, NT 5000, NT 6000, NT 8000, NT 10000 (850 V), NT 10000 (900 V), NT 11000, NT 12000 | AT 2700, AT 3000, AT 3600, AT 4500, AT 5000 | PT 30k PT 33k (IP42, IP54, IP54/Outdoor) |
|---------------------------------|---|---|---|---|
| EN 50178:1997 IEC 62103:2003 | Electronic equipment for use in power installations | X | X | X |
| EN 61000-3-2:2008 | Limits for harmonic current emissions < 16 A per phase | X | X | |
| EN 61000-3-3:2006 | Limitation of voltage fluctuations and flicker < 16 A per phase | X | X | |
| EN 61000-3-11:2000 | Electromagnetic compatibility (EMC) by equipment > 16 A and < 75 A per phase | X | X | X |
| EN 61000-3-12:2005 | Limits for harmonic currents produced by equipment > 16 A and < 75 A per phase | X | X | X |
| EN 61000-6-2 :2006 | Generic standards – Immunity for industrial environments | X | X | X |
| EN 61000-6-3:2005 | Generic standards – Emission standard for residential, commercial and light-industrial environments | X | X | |
| EN 61000-6-4:2007 | Generic standards – Emission standard for industrial environments | X | X | X |
| IEC 62109-1:2003 | Electrical safety of static inverters and charge controllers for use in photovoltaic (PV) power systems | X | X | X |

Konstanz, 21.03.2011

Place Date Thomas Hauser
PDM Solar Inverter

Presently applicable edition can be obtained upon request.