



**Bureau Veritas Consumer
Products Services
Germany GmbH**

Businesspark A96
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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: NT 2500, NT 3000, NT 3700, NT 4200, NT 5000

Use in accordance with regulations:

Automatic disconnection device with single-phase mains surveillance in accordance with Engineering Recommendation G83/1 for photovoltaic systems with a single-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 isolating function that can access the distribution network provider at any time.

Applied rules and standards :

DIN V VDE V 0126-1-1:2006-02 (Redundancy) and Engineering Recommendation G83/1: The NT4200 and NT5000 are rated >16A per phase. However all requirements of G83/1 are fulfilled.

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

Report number: 08TH0232-G83
Certificate number: U11-598
Date of issue: 2011-07-07 **Valid until:** 2014-07-06

Achim Hänchen



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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: NT 10000, NT 11000, NT 12000

Use in accordance with regulations:

Automatic disconnection device with three-phase mains surveillance in accordance with Engineering Recommendation G83/1 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 isolating function that can access the distribution network provider at any time.

Applied rules and standards :

DIN V VDE V 0126-1-1:2006-02 (Redundancy) and Engineering Recommendation G83/1: The NT10000, NT11000, NT12000 are rated >16A per phase. However all requirements of G83/1 are fulfilled.

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

Report number: 09TH0495-G83
Certificate nummer: U11-603
Date of issue: 2011-07-07 **Valid until:** 2014-07-06

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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: NT2500, NT3000, NT3700, NT4200, NT5000

Use in accordance with regulations:

Automatic disconnection device with single-phase mains surveillance in accordance with Engineering Recommendation G59/2 for photovoltaic systems with a single-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 isolating function that can access the distribution network provider at any time.

Applied rules and standards :

DIN V VDE V 0126-1-1:2006-02 (Redundancy) and Engineering Recommendation G59/2: The NT2500 and NT3000 are rated <16A per phase. The NT3700, NT4200 and NT500 are rated >16A per phase and <= 17kW (1 phase). The default values for "Small Power Stations" on the low-voltage grid were verified.

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

Report number: 08TH0232-G59/2
Certificate number: U11-1047
Date of issue: 2011-11-04 **Valid until:** 2014-11-03

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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: NT 10000, NT 11000, NT 12000

Use in accordance with regulations:

Automatic disconnection device with three-phase mains surveillance in accordance with Engineering Recommendation G59/2 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 isolating function that can access the distribution network provider at any time.

Applied rules and standards :

DIN V VDE V 0126-1-1:2006-02 (Redundancy) and Engineering Recommendation G59/2: The NT10000, NT11000 and NT12000 are rated $\geq 16A$ and $\leq 50kW$ (3 phase). The default values for "Small Power Stations" on the low-voltage grid were verified.

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

Report number: 09TH0495-G59/2
Certificate nummer: U11-1046
Date of issue: 2011-11-04 **Valid until:** 2014-11-03

Achim 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.