

Certificate of conformity
NS protection



Manufacturer

Power One Italy S.p.A

Type of NS protection

See Table 1

Integrated NS protection assigned to power generation unit type

See Table 1

Network connection rule

VDE-AR-N 4105
“Power generation systems connected to the low-voltage network”

Technical minimum requirements for connection and parallel operation of power generation systems connected to the low-voltage network

The network and system protection integrated in the power generation units listed in Table 1 meets the requirements of VDE-AR-N 4105.

The setting values and disconnection times (total break times) of the protective functions are as follows:

Voltage drop protection U < :	184 V	< 200ms
Rise-in-voltage protection U > (*):	253 V	< 200ms
Rise-in-voltage protection U >>:	264,5 V	< 200ms
Frequency decrease protection f <:	47,5 Hz	< 200ms
Frequency increase protection f >:	51,5Hz	< 200ms

(*) moving 10-minute average protection acc. EN 50160

- All requirements of VDE-AR-N 4105 are fulfilled and have been confirmed via type tests conducted in Power One and witnessed by an accredited certification institute.
- Since the unit has no reactive power capability, the application in Germany is limited to plants $\leq 3.68\text{kVA}$
- The conformity is only valid for all products with firmware version as listed in Table 1.

Terranuova Bracciolini, 2013-08-23

Power One Italy S.p.A

(Gianfranco Iannuzzi)
Test Houses Liaison Engineer /
European & International Patents Administrator

This certificate of conformity shall not be used in parts.

Power-One Italy S.p.a.
Via San Giorgio, 642 – 52028 Terranuova Bracciolini – Arezzo – Italy
Web Site: www.power-one.com

**VDE-AR-N 4105 Certificate of conformity for the NS protection integrated in the
inverters**

Inverter model	Maximum active power $P_{E_{max}}$	Maximum apparent power $S_{E_{max}}$	AC rated voltage	Fulfill VDE-AR-N 4105 requirements from firmware version
UNO-2.0-I-OUTD-Y Where Y can be S or W	2.0 kW	2.0 kVA (Note *)	230 V	A.5.7.E; B.0.9.F; C.0.7.3
UNO-2.5-I-OUTD-Y Where Y can be S or W	2.5 kW	2.5 kVA (Note *)	230 V	A.5.7.E; B.0.9.F; C.0.7.3

Table 1: Power One inverters in compliance with VDE-AR-N 4105.

Revision: 2 / 2013-08-23

Note *: The unit has not reactive power capability