

## **Section 27 Public Safety**



# DET NORSKE VERITAS

## TYPE CERTIFICATE

**SWT-3.0-101 DD**

Approval class:

**B**

**B-DNV-222210-0**

Type Certificate number

**2011-09-19**

Date of issue

Manufacturer:

**Siemens Wind Power A/S**

**Borupvej 16**

**DK - 7330 Brande**

Valid until: 2012-09-19

Conformity evaluation has been carried out according to **IEC WT 01: 2001 "IEC system for conformity testing and certification of wind turbines, Rules and procedures"**. This certificate attests compliance with IEC 61400-1 ed. 3: 2005 and IEC WT 01 concerning the design and manufacture except for outstanding issues listed in Appendix 2.

**Reference documents:**

Technical Report:

PD-642222-12EVTT1-65

**Wind Turbine specification and outstanding issues:**

IEC WTGS class: S (IA except for temperature ranges and humidity). For further information see Appendices 1 and 2 of this Certificate.

**Date: 2011-09-19**

**Claus F. Christensen**

**Management Representative  
Det Norske Veritas, Danmark A/S**



**DANAK**  
PROD Reg. no. 7031

**Date: 2011-09-19**

**Bente Vestergaard**

**Project Manager  
Det Norske Veritas, Danmark A/S**

**DET NORSKE VERITAS, DANMARK A/S**

### **SWT 3.0-113 Brake System Description**

The brake system for the SWT 3.0-113 consists of a hydraulic unit and 3 positive acting brake calipers on one brake disc. The brake calipers and the brake disc are placed on the generator shaft flange. The brake is a positive acting brake, that is hydraulic pressure is built up in the caliper during braking. The pressure for the brake pads is built up via a piston inside the caliper. The pressure is relieved when the brake is loosened. The system always apply complete braking torque when applying the brake, as only one hydraulic operating pressure is in effect.