

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Wind turbines –
Part 22: Conformity testing and certification**

**Eoliennes –
Partie 22: Essais de conformité et certification**



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CONTENTS

FOREWORD.....	6
INTRODUCTION.....	8
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	11
4 Symbols and abbreviations.....	13
4.1 Symbols	13
4.2 Abbreviations	13
5 Acceptance of operating bodies.....	13
5.1 General.....	13
5.2 Accreditation	13
5.3 Recognition arrangements.....	14
5.4 Advisory committee	14
6 Management of the certification system.....	14
6.1 General.....	14
6.2 Agreement on certification.....	15
6.3 Issue of certificates and conformity statements	15
6.4 Security of relevant documentation.....	15
6.5 Validity, maintenance and expiration of certificates	15
6.5.1 General	15
6.5.2 Maintenance of type certificate	16
6.5.3 Maintenance of project certificate	16
6.5.4 Dealing with outstanding matters	17
6.6 Corrective actions	17
7 The extent of certification	17
7.1 General.....	17
7.2 Type certification.....	18
7.3 Project certification.....	20
7.4 Component certification.....	21
7.5 Prototype certification.....	23
8 Type certification	23
8.1 General.....	23
8.2 Design basis evaluation.....	24
8.3 Design evaluation.....	24
8.3.1 General	24
8.3.2 Design control	25
8.3.3 Control and protection system	25
8.3.4 Loads and load cases.....	26
8.3.5 Rotor blades.....	26
8.3.6 Machine and structural components.....	27
8.3.7 Electrical components	27
8.3.8 Housings	28
8.3.9 Evaluation of component tests.....	29
8.3.10 Foundation design requirements.....	29
8.3.11 Manufacturing process	30
8.3.12 Transportation process.....	30

8.3.13	Installation process.....	30
8.3.14	Maintenance process.....	31
8.3.15	Personnel safety.....	31
8.3.16	Design evaluation conformity statement.....	31
8.4	Type testing	32
8.4.1	General	32
8.4.2	Safety and function tests	33
8.4.3	Power performance measurements.....	33
8.4.4	Load measurements	33
8.4.5	Blade tests	34
8.4.6	Other tests	34
8.4.7	Test reports.....	34
8.4.8	Type test conformity statement.....	35
8.5	Manufacturing evaluation	35
8.5.1	General	35
8.5.2	Quality system evaluation.....	35
8.5.3	Manufacturing inspection.....	35
8.5.4	Manufacturing conformity statement	36
8.6	Foundation design evaluation.....	37
8.7	Foundation manufacturing evaluation	37
8.7.1	General	37
8.7.2	Quality system evaluation.....	37
8.7.3	Foundation manufacturing inspection	38
8.7.4	Foundation manufacturing conformity statement.....	38
8.8	Type characteristics measurements.....	39
8.8.1	General	39
8.8.2	Power quality measurements.....	40
8.8.3	Low voltage ride through measurement	40
8.8.4	Acoustic noise measurements	40
8.8.5	Test reports.....	40
8.8.6	Type characteristics measurements conformity statement	41
8.9	Final evaluation.....	41
8.10	Type certificate.....	41
9	Project certification.....	42
9.1	General.....	42
9.2	Site conditions evaluation.....	42
9.2.1	General	42
9.2.2	Site conditions evaluation requirements.....	42
9.2.3	Site conditions evaluation conformity statement.....	43
9.3	Design basis evaluation.....	43
9.3.1	General	43
9.3.2	Design basis requirements	43
9.3.3	Design basis conformity statement	44
9.4	Integrated load analysis	44
9.4.1	General	44
9.4.2	Integrated load analysis requirements	45
9.4.3	Integrated load analysis conformity statement	45
9.5	Site-specific wind turbine/RNA design evaluation	45

9.5.1	General	45
9.5.2	Site-specific wind turbine design requirements	45
9.5.3	Site-specific wind turbine design conformity statement	46
9.6	Site-specific support structure design evaluation	46
9.6.1	General	46
9.6.2	Site-specific support structure design evaluation requirements	47
9.6.3	Support structure design conformity statement	47
9.7	Other installations design evaluation	47
9.7.1	General	47
9.7.2	Other installations design evaluation requirements	47
9.7.3	Other installations design conformity statement	48
9.8	Wind turbine/RNA manufacturing surveillance	48
9.8.1	General	48
9.8.2	Surveillance requirements	48
9.8.3	Wind turbine/RNA manufacturing surveillance conformity statement	49
9.9	Support structure manufacturing surveillance	49
9.9.1	General	49
9.9.2	Surveillance requirements	49
9.9.3	Support structure manufacturing surveillance conformity statement	50
9.10	Other installations manufacturing surveillance	50
9.10.1	General	50
9.10.2	Surveillance requirements	50
9.10.3	Other installations manufacturing surveillance conformity statement	51
9.11	Project characteristics measurements	51
9.11.1	General	51
9.11.2	Grid connection compatibility according to grid codes	52
9.11.3	Verification of power performance	52
9.11.4	Verification of acoustic noise emission	52
9.11.5	Test reports	52
9.11.6	Project characteristics measurement conformity statement	53
9.12	Transportation and installation surveillance	53
9.12.1	General	53
9.12.2	Transportation and installation requirements	53
9.12.3	Transportation and installation conformity statement	53
9.13	Commissioning surveillance	54
9.13.1	General	54
9.13.2	Commissioning surveillance requirements	54
9.13.3	Commissioning surveillance conformity statement	54
9.14	Final evaluation	54
9.15	Project certificate	55
9.16	Operation and maintenance surveillance	55
9.16.1	General	55
9.16.2	Operation and maintenance surveillance requirements	55
9.16.3	Operation and maintenance conformity statement	56
Annex A (informative)	Design documentation (if applicable)	57
Annex B (informative)	Certificate example format	63
Annex C (informative)	Minimum requirements for load measurements	72
Annex D (informative)	Requirements for safety and function tests	73

Annex E (informative) Condition monitoring systems for wind turbines	76
Bibliography.....	78
Figure 1 – Modules of type certification.....	19
Figure 2 – Modules in project certification	21
Figure 3 – Modules in component certification and their applications for type certification	22
Figure 4 – Elements of design evaluation.....	25
Figure 5 – Type testing elements	32
Figure 6 – Type characteristics measurements elements	39
Table A.1 – Design documentation (if applicable).....	57

INTERNATIONAL ELECTROTECHNICAL COMMISSION

WIND TURBINES –

Part 22: Conformity testing and certification

FOREWORD

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International Standard IEC 61400-22 has been prepared by IEC technical committee 88: Wind turbines.

This standard cancels and replaces IEC WT 01 (2001): IEC System for Conformity Testing and Certification of Wind Turbines – Rules and Procedures.

The text of this standard is based on the following documents:

FDIS	Report on voting
88/365/FDIS	88/368/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61400 series, under the general title: *Wind turbines*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This International Standard defines rules and procedures for conformity testing and certification of wind turbines with respect to standards and technical requirements for wind turbines and wind farms. It is intended to facilitate mutual recognition (reciprocal acceptance) by participants of test results and certificates issued by other participants for obtaining certification at national level and operates within the scope of the IEC 61400 series of standards and technical specifications for wind turbines.

The certification procedures in this standard constitute a complete third party conformity evaluation of a wind turbine type, a major component type or one or more wind turbines at a specific location.

In addition to design verification and testing, this standard provides information for the recognition of or assessment for approval of the supplier's quality system, regular surveillance through inspection of the supplier's quality system and quality plans, and audit testing of samples. The standard is amongst others intended to result in significant benefit to the applicant by reducing the number of steps necessary to obtain certification or approval at national level.

WIND TURBINES –

Part 22: Conformity testing and certification

1 Scope

This International Standard defines rules and procedures for a certification system for wind turbines (WT) that comprises both type certification and certification of wind turbine projects installed on land or off-shore. This system specifies rules for procedures and management for carrying out conformity evaluation of WT and wind farms, with respect to specific standards and other technical requirements, relating to safety, reliability, performance, testing and interaction with electrical power networks. It provides:

- definitions of the elements in a wind turbine certification process;
- procedures for conformity evaluation in a wind turbine certification system;
- procedures for conformity surveillance;
- rules for the documentation that is to be supplied by an applicant for the conformity evaluation; and
- requirements for certification and inspection bodies and testing laboratories.

The rules and procedures are not limited to WT of any particular size or type. However, special rules and procedures apply for small wind turbines (SWT). Some elements of certification are mandatory, whilst provision is specifically made for others to be optional. For type certification, the document describes procedures relating to conformity testing, design, manufacture, and the plans for transportation, erection, installation and maintenance. The procedures deal with the assessment of loads and safety, testing, characteristics measurements and surveillance of manufacturing. For project certification, the document describes procedures relating to the assessment that particular wind turbines and support structure/foundation designs in a project are appropriate for the application and relating to transportation, installation, commissioning, operation and maintenance. The procedures deal with assessment in accordance with all modules in this document, e.g. the site conditions, the design of site-specific components and surveillance of manufacturing, transportation, installation and operation.

The purpose of the rules and procedures is to provide a common basis for certification of wind turbines and wind turbine projects, including a basis for acceptance of operating bodies (i.e. certification bodies, inspection bodies and testing laboratories) and mutual recognition of certificates.

The rules and procedures are intended to be used in conjunction with the appropriate IEC/ISO standards and Guides, see Clause 2.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE In the case where an earlier or withdrawn edition of the referenced normative document is used together with this document, these earlier editions must be specified in the Agreement for Certification, see Subclause 6.2, and in conformity statements and certificates.

IEC 60034 (all parts), *Rotating electrical machines*