

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

Wind energy generation systems – Part 12-1: Power performance measurements of electricity producing wind turbines
(*First Revision*)

(ICS 27.180)

Wind Turbines
Sectional Committee, ETD 42

Last date for Comments -21/11/2023

FOREWORD

(Formal clauses will be added later)

This draft Standard (first revision) which is identical with IEC 61400-12-1-2022 ‘Wind energy generation systems – Part 12-1: Power performance measurements of electricity producing wind turbines’ issued by the International Electrotechnical Commission (IEC) is proposed to be adopted by the Bureau of Indian Standards on the recommendation of the Wind Turbines Sectional Committee and approval of the Electrotechnical Division Council.

The text of the IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to International Standards for which Indian Standards also exists. The corresponding Indian Standards, which are to be substituted, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60688, Electrical measuring transducers for converting AC and DC electrical quantities to analogue or digital signals	IS 14570 : 2021 Electrical Measuring Transducers for Converting A.C. and D.C. Electrical Quantities to Analogue or Digital Signals (Second Revision)	Identical with IEC 60688 : 2012
IEC 61400-2, Wind turbines – Part 2: Small wind turbines	IS/IEC 61400-2 : 2013 Wind Turbines Part 2 Small Wind Turbines	Identical with IEC 61400-2 : 2013
IEC 61400-12-3, Wind energy generation systems – Part 12-3: Power performance – Measurement based site calibration	IS/IEC 61400-12-3 : 2022 Wind Energy Generation Systems Part 12 Power Performance Section 3 Measurement based site calibration	Identical with IEC 61400-12-3 : 2022
IEC 61400-12-5, Wind energy generation systems – Part 12-5: Power performance – Assessment of obstacles and terrain	IS/IEC 61400-12-5 : 2022 Wind Energy Generation Systems Part 12 Power Performance Section 5 Assessment of Obstacles and Terrain	Identical with IEC 61400-12-5 : 2022
IEC 61869-1, Instrument transformers – Part 1: General requirements	IS 16227 (Part 1) : 2016 Instrument Transformers Part 1 General Requirements	Identical with IEC 61869-1 : 2007
IEC 61869-2, Instrument transformers – Part 2: Additional requirements for current transformers	IS 16227 (Part 2) : 2016 Instrument Transformers Part 2 Additional Requirements for Current Transformers	Identical with IEC 61869-2 : 2012
IEC 61869-3, Instrument transformers – Part 3: Additional requirements for inductive voltage transformers	IS 16227 (Part 3) : 2015 Instrument Transformers Part 3 Additional Requirements for Inductive Voltage Transformers	Identical with IEC 61869-3 : 2011

The technical committee has reviewed the provisions of the following international standards referred in this adopted standard and decided that they are acceptable for use in conjunction with this standard.

<i>International Standard</i>	<i>Title</i>
IEC 61400-12-2	Wind energy generation systems – Part 12-2: Power performance of electricity producing wind turbines based on nacelle anemometry
IEC 61400-50-1	Wind energy generation systems – Part 50-1: Wind measurement – Application of meteorological mast, nacelle and spinner mounted instruments
ISO 2533	Standard Atmosphere

IEC 61400-50-2	Wind energy generation systems – Part 50-2: Wind measurement – Application of ground mounted remote sensing technology
ISO/IEC Guide 98-3:2008,	Uncertainty of measurement – Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test, shall be rounded off in accordance with IS 2: 2022 ‘Rules for rounding off numerical values (*Second Revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Note: The technical content of their document has not been enclosed as there are identical with the corresponding IEC standards for details, please refer the corresponding IEC 61400-12-1-2022 or kindly contact:

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