ICS 27.180

ČSN
EN IEC 61400-12-1
ed. 3
OPRAVA 2
33 3160

Září 2025

ČESKÁ TECHNICKÁ NORMA

Větrné elektrárny – Část 12-1: Měření výkonu větrných elektráren

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61400-12-1:2022/AC:2025-06

June 2025

ICS 27.180

English Version

Wind energy generation systems - Part 12-1: Power performance measurements of electricity producing wind turbines (IEC 61400-12-1:2022/COR1:2025)

Systèmes de génération d'énergie éolienne - Partie 12-1: Mesures de performance de puissance des éoliennes de production d'électricité (IEC 61400-12-1:2022/COR1:2025)

Windenergieanlagen - Teil 12-1: Messung des Leistungsverhaltens von Windenergieanlagen (IEC 61400-12-1:2022/COR1:2025)

This corrigendum becomes effective on 6 June 2025 for incorporation in the English language version of the EN.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Endorsement notice

The text of the corrigendum IEC 61400-12-1:2022/COR1:2025 was approved by CENELEC as EN IEC 61400-12-1:2022/AC:2025-06 without any modification.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

_____

IEC 61400-12-1
Edition 3.0 2022-09

WIND ENERGY GENERATION SYSTEMS

Part 12-1: Power performance measurements of electricity producing wind turbines

IEC 61400-12-1
Édition 3.0 2022-09

SYSTÈMES DE GÉNÉRATION D'ÉNERGIE ÉOLIENNE

Partie 12-1: Mesurages de performance de puissance des éoliennes de production d'électricité

CORRIGENDUM 1

Corrections to the French version appear after the English text.

Les corrections à la version française sont données après le texte anglais.

4 Symbols, units and abbreviated terms

Replace the lines

$c_{RH,i}$ sensitivity factor for relative humidity in bin i

T_i average temperature in bin i

ρ_i average air density in bin i

Φ relative humidity (range 0 % to 100 %)

Φ_i average relative humidity (range 0 % to 100 %) in bin i

with

$c_{RH,i}$ sensitivity factor for relative humidity in bin i [W / %RH]

T_i average temperature in bin i [K]

ρ_i average air density in bin i [kg/m^3]

Φ relative humidity (range 0 % to 100 % or 0 to 1)

Φ_i average relative humidity (range 0 % to 100 % or 0 to 1) in bin i

Annex D − Evaluation of uncertainty in measurement

In Table D.1, under "Wind speed (cup and sonic anemometer)", *add* "Lightning finial" *in the second column and* "B" *in the last column*.

Annex E − Theoretical basis for determining the uncertainty of measurement using the method of bins

E.5 Category B uncertainties: Power output

E.5.1 General

Replace the fourth paragraph starting with "Further, an uncertainty component due to the dynamic behaviour"

with

"Finally the uncertainty related to the data acquisition of the power signal shall be added.".

E.9 Category B uncertainties: Wind speed – Terrain

E.9.1 General

Replace the sixth paragraph

In this case this uncertainty component related to the terrain has nine sub-components

with

In this case this uncertainty component related to the terrain has ten sub-components.

Add the following new item to the list:

j) uncertainty related to the lightning finial.

E.10.2 Category B uncertainties: Air density – Temperature – Introduction

After Equation (E.17), replace

v_i is the average wind speed in bin i;

with

v_i is the average wind speed in bin i, site-calibrated and normalized for air density, shear, veer, and/or turbulence, as the case may be;

Add, after the definition of terms for Equation (E.17), the following new note:

NOTE 1 Units are defined in Clause 4.

After Equation (E.18), replace

P_i is the sensitivity factor for wind speed in bin i;

with

P_i is the normalized and averaged power output in bin i;

Add, after the definition of terms for Equation (E.18), the following new note:

NOTE 2 Units are defined in Clause 4.

E.10.7 Category B uncertainties: Air density – Pressure – Introduction

After Equation (E.19), replace

v_i is the average wind speed in bin i;

with

v_i is the average wind speed in bin i, site-calibrated and normalized for air density, shear, veer, and/or turbulence, as the case may be;

Add, after the definition of terms for Equation (E.19), the following new note:

NOTE 1 Units are defined in Clause 4.

Add, after the definition of terms for Equation (E.20), the following new note:

NOTE 2 Units are defined in Clause 4.

E.10.11 Category B uncertainties: Air density – Relative humidity – Introduction

After Equation (E.21), replace

v_i is the average wind speed in bin i;

with

v_i is the average wind speed in bin i, site-calibrated and normalized for air density, shear, veer, and/or turbulence, as the case may be;

Add, after the definition of terms for Equation (E.21), the following new note:

NOTE 1 Units are defined in Clause 4.

Add, after the definition of terms for Equation (E.22), the following new note:

NOTE 2 Units are defined in Clause 4.

E.13.2 Combining Category B uncertainties in electric power ($u_{\mathbf{P},i}$)

In first paragraph, replace

"….the current and voltage transformers, the dynamic behaviour and the data acquisition system:"

with

"….the current and voltage transformers, and the data acquisition system:".

Annex R − Uncertainty considerations for tests on multiple turbines

In Table R.1, delete the fourth row for "Dynamic power measurement".

U p o z o r n ě n í : Oznámení o změnách, opravách a nově vydaných normách jsou uveřejňována ve Věstníku Úřadu pro technickou normalizaci, metrologii a státní zkušebnictví.

Vaše názory, podněty a připomínky týkající se technických norem a zájmu o možnou účast v procesech technické normalizace lze zaslat na e-mailovou adresu info@agenturacas.gov.cz.

ČSN EN IEC 61400-12-1 ed. 3 OPRAVA 2

ČESKÁ AGENTURA PRO STANDARDIZACI

Vydala Česká agentura pro standardizaci na základě ustanovení § 5 odst. 2 zákona č. 22/1997 Sb.
Rok vydání 2025, 8 stran
Cenová skupina 998

522088