



COMPONENT CERTIFICATE

Certificate No.:
CC-GL-IV-1-03644-3

Issued:
2023-09-29

Valid until:
2028-09-28

Issued for:

LID-3300IP Ice Detector System Type 2

Specified in Annex 1

Issued to:

Labkotec Oy

Myllyhaantie 6
33960 Pirkkala, Finland

According to:

GL-IV-1:2010 Guideline for the Certification of Wind Turbines DNV-SE-0441:2021-10 Type and component certification of wind turbines

Based on the document:

FCR-CC-GL-IV-1-03644-3

Final Certification Report, dated 2023-09-29

Changes of the system design, the production or the manufacturer's quality system are to be approved by DNV.

Hamburg, 2023-09-29
For DNV Renewables Certification

Christopher Harrison
Service Line Leader for Component Certification



By DAkkS according DIN EN IEC/ISO 17065 accredited Certification Body for products. The accreditation is valid for the fields of certification listed in the certificate.

Hamburg, 2023-09-29
For DNV Renewables Certification

Daniel Kopte
Senior Engineer

COMPONENT CERTIFICATE – ANNEX 1

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General

Design lifetime 20 years
Manufacturer Labkotec Oy

Electrical network conditions

Normal supply voltage and range 230 VAC±10%
Normal supply frequency and range 50/60 Hz
Description of lightning protection system Designed acc. to IEC 61400-24, Protection Level I

Design data of Labkotec LID-3300IP Ice Detector System with LID-3300IP Control Unit Type 2 and LID/ISD Ice Sensor Type 2

Diagnostic Coverage DC = 0.62
Mean Time To dangerous Failure of ice detector and its ice and failure detection functions in safety channel MTTFd = 122 years
Designated architecture Category = 2
Appropriate for usage for Performance Level PL = d

Interfaces

Wind turbine control system and manuals, see CR-DA-GL-IV-1-03644-3

Major components

LID-3300IP Control Unit Type 2	Control Unit application software (ASW) version	2.20
	Control Unit safety software (SSW) version	1.0
	Temperature range	-30 to +55 °C for operation
	Installation height	<4000 m above sea level
LID/ISD Ice Sensor Type 2	Sensor software (SW) version	4.0
	Temperature range	-40 to +60 °C for operation
	Installation height	<4000 m above sea level
Manual	Installation and O&M manual	Document no. and revision: DOC001181-EN-5