Manufacturer Test Report

Issued on 19.01.2022 by LUB Document: 10047402 000 00

Isolated lightning protection components



CUI Conductor

Part No.:

830218

Material No.:

49062

DEHN SE
Hans- Dehn- Str. 1
92318 Neumarkt, Germany

MANUFACTURER TEST REPORT

DIN IEC 62305-3

IEC 60060-1 (2010)

Chopped lightning impulse (1.2/50 µs) withstand voltage test under wet conditions

Report DIS- No.	**: 10047402 000 00**
Compiled by (+ signature)	**: Beck Lukas**
Approved by (+ signature)	**: Dominik Donauer**
Date of issue	**: 21.01.2022**

Testing laboratory	**: DEHN SE**
Address	**: Hans-Dehn-Str. 1**
Testing location	**: 92318 Neumarkt, Germany**
Standard	**: DIN IEC 62305-3** **IEC 60060-1 (2010)**

Type of test item	**: Conductor**
Model	**: Insulated Down Conductor**
Type	**: CUI L 20 GR 5m**
Model number	**: 830218**

Rating(s)	**: The product was tested according to IEC 60060-1 (2010)**

Technical Data:

Technical Data	Value
Part Number	830218
Mat. -Number	49062
Product description	CUI L 20 GR 5m
Conductor Type	CUI Conductor
Conductor diameter	Ø20 mm
Surge withstand capability (1.2/50µs)	100 kv
Cutting time	1,1µs ≤ Tc ≤ 1,5µs
Number of impluse voltage stress	positiv 3x / negativ 3x
Color of conductor	Light grey
Cross-section of core	50 mm^2
Total length	5000 mm
Weight	3,6 kg
Material of the inner conductor	copper
Minimum bending radius	300 mm
Operating temperature	-20...+90 °C
Installation temperature	up to -5°C
Installation instruction	DS-Nr. 1482 Mat. Nr. 3018536

Test results for CUI System according to IEC 60060-1				
Test Series	Clause	Requirement - Test	Result	Verdict
1	Cutting time	*1,1µs ≤ Tc ≤ 1,5µs*	P	P

Legend

Test case verdicts		**character**
Test case does not apply to the test object	⇒ **Not applicable**	**N/A**
Test item does meet the requirement	⇒ **Pass**	**P**
Test item does not meet the requirement	⇒ **Fail**	**F**

Hochspannungsprüflaboratorium
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Fraunhofer Str. 4
64283 Darmstadt

TECHNISCHE UNIVERSITÄT DARMSTADT

Ident-No.: 2021-004-LI Revision: 01

Type Test Report: Lightning impulse voltage test under wet conditions

Equipment under Test:	CUI (single wire)
Material Number:	49066
Manufacturer:	DEHN SE + Co KG Hans-Dehn-Straße 1 92318 Neumarkt
Client:	DEHN SE + Co KG Hans-Dehn-Straße 1 92318 Neumarkt
Applied Test Specification :	IEC 60060-1 (2010) Customer Specification
Test performed:	Chopped Lightning impulse (1.2/50 µs) withstand voltage test under wet conditions
Test Results:	-
Test Engineer:	Christian Dorsch, M.Sc. Dr.-Ing. T. Wietoska
Released by:	Dr.-Ing. T. Wietoska
Witnessed by:	Daniel Stasch (DEHN SE + Co KG)
Place and Date of Test:	Darmstadt, 27th of April, 2021

Darmstadt, 11th of May, 2021

Test Engineer

Christian Dorsch, M.Sc.

Test Engineer and Head of Laboratory

Dr.-Ing. T. Wietoska

The use of the DAkkS symbol relates only to the wet test procedure. Statements on the conformity of the results with regard to standards are not made and are the responsibility of the customer.

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2. Photography of Equipment under Test

The test sample was mounted in the High Voltage Laboratory of the University of Technology Darmstadt (Figure 2).



Figure 2: Photography of the test arrangement