

Report No.: TN23-2488E

Sample No.: CN23-2963

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Contract No.: ISTCW23-0977

Test Report

Consigner CALEDONIAN (SHANGDONG) CABLES LIMITED
1/F., CMA Building, 64-66 Connaught Road Central, City, Hong Kong

Sample Name 50KV DC SILICON CABLE

Type and Size 50DC-SCS-1C0.75-LSOH

Kind of test Commission test

Sample Received Date April 10th, 2023

Test Duration April 10th, 2023 – April 18th, 2023

Test Conclusion 1. The DC voltage tests results comply with the consigner requirements;
2. The insulation resistance measurement result is provided.

Authorized by
Shanghai Intelligent Service and Technology Co., Ltd.

李骥 Li Ji



Issue date

2023-04-20

Testing Engineer: 贾欣 Jia Xin

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50DC-SCS-1C0.75-LSOH

1 Sample Description

Manufacturer	CALEDONIAN (SHANGDONG) CABLES LIMITED
Type and Size	50DC-SCS-1C0.75-LSOH
Quantity	18m
Marking	/
Color	/
Source	Sent by the consigner
Status	Normal appearance

2 Testing and Verdict Standards

2.1 Testing Standards

Referring to: IEC 60502-2: 2014 Power cables with extruded insulation and their accessories for rated voltages above 1kV ($U_m=1.2kV$) up to 30kV ($U_m=36kV$) – Part 2: Cables for rated voltages from 6kV ($U_m=7.2kV$) up to 30kV ($U_m=36kV$)

2.2 Verdict Standards

Requirements of the consigner.

3 Other Information

3.1 Illustration

- 1) The sample's name, type and manufacturer are provided by the consigner;
- 2) The test voltages, time for DC voltage tests and insulation resistance measurement are provided by the consigner.

3.2 Testing Location

All tests are tested at No.458, Haixiang Road, Fengxian Area, Shanghai, China.

3.3 Symbol definition

Requirement: / not required by standard

Verdict: P complying with requirement/Pass

F not complying with requirement/Fail

N not required

50DC-SCS-1C0.75-LSOH

4 Test Item

4.1 DC voltage test for 15mins

According to the consigner requirements.

Test method: Referring to IEC 60502-2: 2014

Test parameters

Ambient temperature: 20 °C

Polarity of DC voltage: Negative

Voltage Arrangement		Test Voltage, DC (kV)	Duration(min)
Voltage applied	Grounded		Single Core
Conductor	Metal Screen	75	15

Test Item	Requirement	Test Result	Verdict
- DC voltage test	No breakdown shall occur.	There is no breakdown occurred.	P

4.2 DC voltage test for 5mins

According to the consigner requirements.

Test method: Referring to IEC 60502-2: 2014

Test parameters

Ambient temperature: 20 °C

Polarity of DC voltage: Negative

Voltage Arrangement		Test Voltage, DC (kV)	Duration(min)
Voltage applied	Grounded		Single Core
Conductor	Metal Screen	125	5

Test Item	Requirement	Test Result	Verdict
- DC voltage test	No breakdown shall occur.	There is no breakdown occurred.	P

4.3 Insulation resistance measurement at ambient temperature

According to the consigner requirements.

Test method: Referring to IEC 60502-2: 2014

50DC-SCS-1C0.75-LSOH

Test parameters

Ambient temperature:

20 °C

Test voltage:

5000 V, DC

Test voltage applied between:

Conductor-Metal Screen

The time after test voltage applied:

1 min

Effective length of the sample:

15 m

Test Item	Unit	Requirement	Test Result	Verdict
			Single Core	
- Insulation resistance	MΩ	/	6×10^5	P

- The End -

