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CNAS L3533

Test Report

No. CZFS2402000143FF

Date: Mar. 5, 2024

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ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

No. 1399, Binxing Road, Binjiang District, Hangzhou, Zhejiang, China

Sample Name: Network Cable

SGS Ref No.: GZES2401001652CO

Sampling: Test sample(s) were collected by SGS Fimko authorized person. SGS Fimko takes responsibility for the authenticity of the samples

Test Requested:

EN 50575:2014+A1:2016 Power, control, and communication cables - Cables for general applications in construction works subject to reaction to fire requirements. Clause 4.1 Reaction to fire.

Classification according to EN 13501-6:2018+A1:2022 Fire classification of construction products and building elements - Part 6: Classification using data from reaction to fire tests on power, control and communication cables.

Test Results: -- See attached sheet --

Test Period:

Sample Receiving Date : February 21, 2024

Test Performing Date : February 21, 2024 TO February 28, 2024

Signed for and on behalf of

SGS-CSTC Standards Technical Services (Changzhou) Co., Ltd

Matthew Fang

Matthew Fang
Approved Signatory

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1. Introduction

This classification report defines the classification assigned to Communication cable in accordance with the procedures given in EN 13501-6.

2. Details of classified product

2.1 General

The product, Network Cable, is defined as Communication cable.

2.2 Product description

The product, Network Cable, is described below or is described in the reports provided in support of classification listed in 3.1.

Description*	Network Cable
Model*	DH-PFM923I-6UN-CC
Designation type*	DH-PFM923I-6UN-CC
Generic construction*	Cu / HDPE / Separator: PE / Rip cord / LSZH
Number of cores*	8
Color of sheath	White
Overall diameter	6.1mm
Marking	ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD. DH-PFM923I-6UN-CC UTP CAT6 LSZH 4PAIRS CPR EN50575 Cca CERTIFIED Q/DXJ 067-2019 100496 2023/11/01 154m
Manufacturer*	Zhejiang Dahua Vision Technology Co., Ltd.
Address of Manufacture*	No. 1399, Binxing Road, Binjiang District, Hangzhou, Zhejiang, China

*: Provided by the applicant.



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3. Test report and results in support of classification

3.1 Test report

Name of Test Lab.	Name of sponsor	Test report No.	Test method and date
SGS-CSTC Standards Technical Services (Changzhou) Co., Ltd	Zhejiang Dahua Vision Technology Co., Ltd.	CZFS2402000145FF	Feb.24, 2024 EN 60332-1-2:2004+A12:2020
SGS-CSTC Standards Technical Services (Changzhou) Co., Ltd	Zhejiang Dahua Vision Technology Co., Ltd.	CZFS2402000144FF	Feb.25, 2024 EN 50399:2022
SGS-CSTC Standards Technical Services (Changzhou) Co., Ltd	Zhejiang Dahua Vision Technology Co., Ltd.	CZFS2402000147FF	Feb.28, 2024 EN 60754-2:2014+A1:2020
SGS-CSTC Standards Technical Services (Changzhou) Co., Ltd	Zhejiang Dahua Vision Technology Co., Ltd.	CZFS2402000146FF	Feb.24, 2024 EN 61034-2:2005+A2:2020

3.2 Results

Test method	Parameter	No. Tests	Results	
			Mean value	Compliance with parameters
EN 60332-1-2: 2004+A12:2020	H(mm)	1	101	Compliant
EN 50399:2022 (20,5kW flame source)	FS(m)	1	0.27	Compliant
	THR ₁₂₀₀ (MJ)		2.3	Compliant
	Peak HRR(kW)		8.2	Compliant
	Peak SPR(m ² /s)		0.02	Compliant
	FIGRA(W/s)		60.8	Compliant
	Flaming droplets / particles		No	Compliant d0
	TSP _{1200s} (m ²)		3.2	Compliant
EN 60754-2: 2014+A1:2020	c' (μS/mm)	3	0.6	Compliant
	pH'		7.0	Compliant
EN 61034-2: 2005+A2:2020	Transmittance (%)	1	80.4	Compliant



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Note:

Peak HRR----Maximum value of heat release [kW];

Peak SPR---- Maximum value of smoke production [m²/s];

*THR*_{1200s} ---- Total heat release [MJ];

*TSP*_{1200s} ----Total smoke production [m²];

FIGRA----Fire growth rate index [W/s];

FS----flame spread [m] equals the damaged length of the sample [m];

H----vertical flame spread, distance from the upper onset of charring (above the flame application point) to the lower onset of charring [mm];

c-----conductivity (μS/mm), *c'*-----the weighted value of conductivity (μS/mm);

pH-----acidity, *pH'* -----the weighted value of acidity.

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-6:2018+A1:2022.

4.2 Classification

The product, Optical fibre cable, in relation to its reaction to fire behaviour is classified:

B_{2ca}

The additional classification in relation to smoke production is:

S_{1a}

The additional classification in relation to flaming droplets / particles is:

d₀

The additional classification in relation to acidity is:

a₁

The format of the reaction to fire classification for electric cables is:

Fire behaviour		Smoke production			Flaming droplets			Acidity	
B _{2ca}	-	s	1a	,	d	0	,	a	1

i.e. B_{2ca} – s_{1a}, d₀, a₁

Remark: The classes with their corresponding fire performance are given in annex A.



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4.3 Field of application

This classification is valid for the following product parameters as determined in the extended application process according CLC/FprTS 50576:

DH-PFM923I-6UN-CC, PFM923I-6UN-CC cables are identical except for the model name and length.

The report is valid for the following model cables:

DH-PFM923I-6UN-CC, PFM923I-6UN-CC.

The classification is valid for all end use applications.

5. Limitations

This classification report does not represent type approval or certification of the product.

The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer's factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.

STATEMENT:

This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the results was not included.

Within the territory of the people's Republic of China, this report is only used for domestic customers' scientific research, teaching, internal quality control and product R & D, and does not have the role of social certification.



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Annex A: Classes of reaction to fire performance for electric cables

Class	Test method(s)	Classification criteria	Additional classification
A _{ca}	EN ISO 1716	$PCS \leq 2,0 \text{ MJ/kg}^{(1)}$	
B _{1ca}	EN 50399 (30 kW flame source) and	$FS \leq 1,75 \text{ m}$ and $THR1200s \leq 10 \text{ MJ}$ and $Peak HRR \leq 20 \text{ kW}$ and $FIGRA \leq 120 \text{ Ws}^{-1}$	Smoke production ^(2,5) and Flaming droplets/particles ⁽³⁾ and Acidity ⁽⁴⁾
	EN 60332-1-2	$H \leq 425 \text{ mm}$	
B _{2ca}	EN 50399 (20,5 kW flame source) and	$FS \leq 1,5 \text{ m}$; and $THR1200s \leq 15 \text{ MJ}$; and $Peak HRR \leq 30 \text{ kW}$; and $FIGRA \leq 150 \text{ Ws}^{-1}$	Smoke production ^(2,6) and Flaming droplets/particles ⁽³⁾ and Acidity ⁽⁴⁾
	EN 60332-1-2	$H \leq 425 \text{ mm}$	
C _{ca}	EN 50399 (20,5 kW flame source) and	$FS \leq 2,0 \text{ m}$; and $THR1200s \leq 30 \text{ MJ}$; and $Peak HRR \leq 60 \text{ kW}$; and $FIGRA \leq 300 \text{ Ws}^{-1}$	Smoke production ^(2,6) and Flaming droplets/particles ⁽³⁾ and Acidity ⁽⁴⁾
	EN 60332-1-2	$H \leq 425 \text{ mm}$	
D _{ca}	EN 50399 (20,5 kW flame source) and	$THR1200s \leq 70 \text{ MJ}$; and $Peak HRR \leq 400 \text{ kW}$; and $FIGRA \leq 1\,300 \text{ Ws}^{-1}$	Smoke production ^(2,6) and Flaming droplets/particles ⁽³⁾ and Acidity ⁽⁴⁾
	EN 60332-1-2	$H \leq 425 \text{ mm}$	
E _{ca}	EN 60332-1-2	$H \leq 425 \text{ mm}$	
F _{ca}	EN 60332-1-2	$H > 425 \text{ mm}$	

(1) For the product as a whole, excluding metallic materials, and for any external component (i.e. sheath) of the product.

(2) $s1 = TSP_{1200s} \leq 50 \text{ m}^2$ and $Peak SPR \leq 0,25 \text{ m}^2/\text{s}$

s1a = **s1** and transmittance in accordance with EN 61034-2 $\geq 80 \%$

s1b = **s1** and transmittance in accordance with EN 61034-2 $\geq 60 \%$ < 80 %

s2 = $TSP_{1200s} \leq 400 \text{ m}^2$ and $Peak SPR \leq 1,5 \text{ m}^2/\text{s}$

s3 = not s1 or s2

(3) **d0** = No flaming droplets/particles within 1200 s; **d1** = No flaming droplets/ particles persisting longer than 10 s within 1200 s; **d2** = not d0 or d1.

(4) EN 60754-2: **a1** = conductivity < 2,5 $\mu\text{S}/\text{mm}$ and $pH > 4,3$; **a2** = conductivity < 10 $\mu\text{S}/\text{mm}$ and $pH > 4,3$; **a3** = not a1 or a2. No declaration = No Performance Determined.

(5) The smoke class declared for class B_{1ca} cables shall originate from the test according to EN 50399 (30 kW flame source)

(6) The smoke class declared for class B_{2ca}, C_{ca}, D_{ca} cables shall originate from the test according to EN 50399 (20,5 kW flame source)



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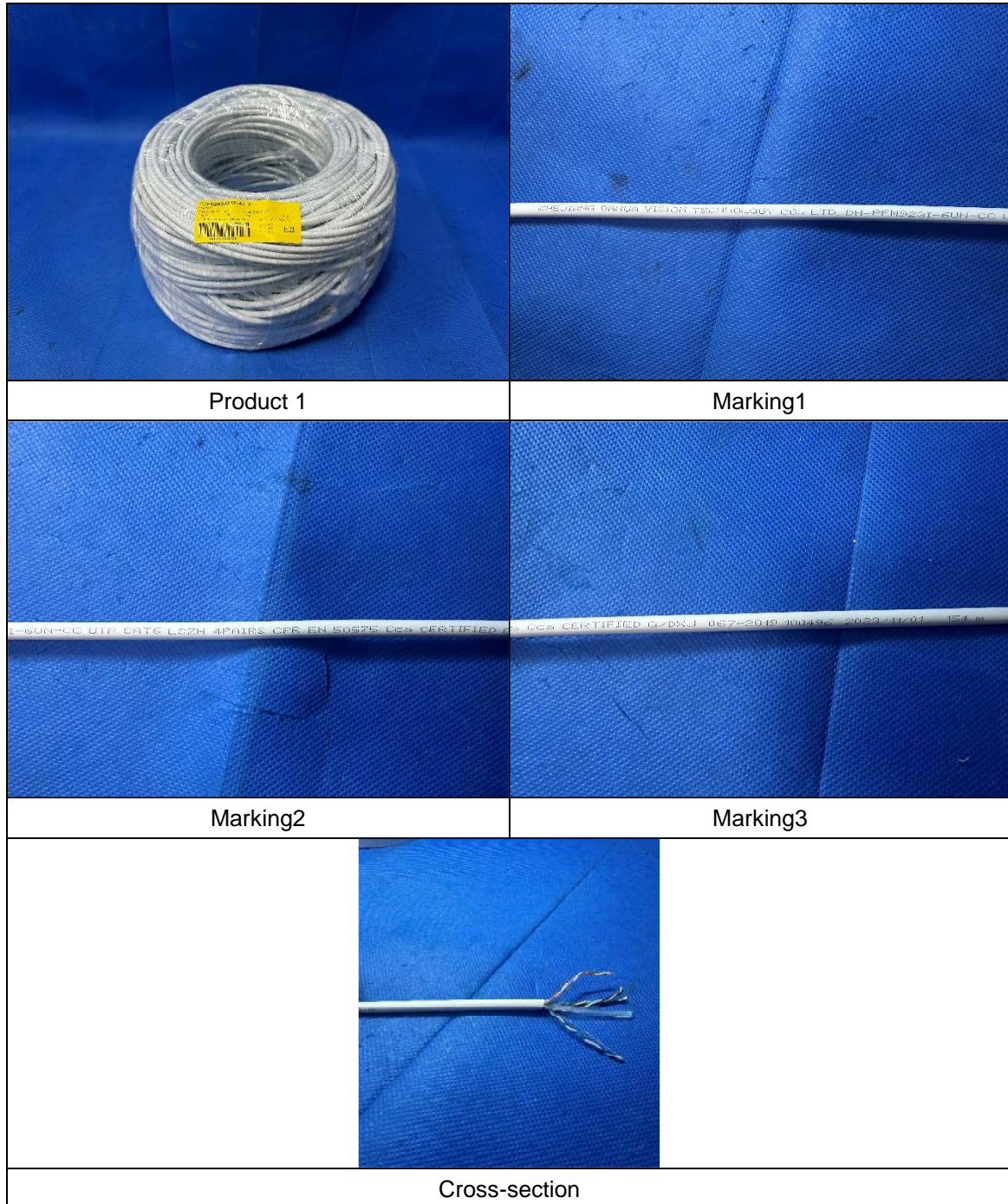
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Photo Appendix:



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