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中国认可  
国际互认  
检测  
TESTING  
CNAS L0207

报告编号  
Reference No

CT23-02168

# 检测报告

## Test Report

样品名称  
Name of sample 0.6/1kV Aerial Bundled Cable

样品型号  
Type of sample Quadruplex 3×1/0+1/0AWG Costena

委托方  
Consigner Hangzhou Easy Electric Wire and Cable Co.,LTD

试验类型  
Kind of test Commission Test

上海国缆检测股份有限公司

SHANGHAI NATIONAL CENTER OF TESTING AND INSPECTION  
FOR ELECTRIC CABLE AND WIRE CO., LTD



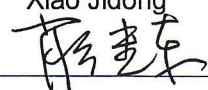
国家电线电缆质量检验检测中心

CHINA NATIONAL CENTRE OF TESTING AND INSPECTION  
FOR ELECTRIC CABLE AND WIRE



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Shanghai National Center of Testing and Inspection for Electric Cable and Wire Co., Ltd.  
China National Centre of Testing and Inspection for Electric Cable and Wire  
Test Report

Kind of test	Commission Test		Reference No.	CT23-02168	
Name of sample	0.6/1kV Aerial Bundled Cable				
Type and Size	Quadruplex 3×1/0+1/0AWG Costena		Date of test	2024-02-20 ~ 2024-04-08	
Consigner	Name Hangzhou Easy Electric Wire and Cable Co.,LTD				
	Address Room 305, Building 2, No. 380 Fengxin Road, Hangzhou, China				
	Tel.	19560490934	P.C.	311121	Unit No. 057129
Manufacturer	Name Hangzhou Easy Electric Wire and Cable Co.,LTD				
	Address Room 305, Building 2, No. 380 Fengxin Road, Hangzhou, China				
	Tel.	19560490934	P.C.	311121	Unit No. 057129
Delivering mode	Supplied by consigner	Sample state at receiving	Normal	Receiving date	2023-05-23
Test standard	1.ICEA T-27-581-2016 Standard Test Methods for Extruded Dielectric Power, Control, Instrumentation, and Portable Cables for Test 2. ASTM B232/232M-2022 Standard Specification for Concentric-Lay-Stranded Aluminum Conductors,Coated-steel Reinforced(ACSR)				
Verdict standard	1.ANSI/ICEA S-76-474-2020 Standard for Neutral-supported power cable assemblies with weather-resistant extruded insulation rated 600 Volts 2. The requirements of the technical specification provided by the consigner.				
Conclusion	The items construction tested complied with the requirements of the technical specification provided by the consigner,and other items tested complied with the requirements of ANSI/ICEA S-76-474-2020.				
Note	/				
Tested by	郭荣荣 Guo Rongrong 	Checked by	李娜 Li Na 	Approved by	肖继东 Xiao Jidong 
Date	2024.4.8	Date	2024.4.8	Date	2024.4.8

Type and size:		Quadruplex 3×1/0+1/0AWG Costena		Reference No.	CT23-02168		
No.	Test Items	Unit	Requirements	Test Results			Verdict
1	Inspected cores identification						
	-Phase cores		/	Black1	Black2	Black3	N
	-Neutral core		/	No covering			N
1.1	Construction						
1.1.1	Phase cores						
	Conductor material		Aluminium	Compacted circular Aluminium			P
	-Number of wires in conductor		19	19	19	19	P
	-Diameter of conductor		/	9.4	9.4	9.5	N
	-Cross section area	mm <sup>2</sup>	/	54.6	54.7	54.6	N
	-Twist direction of outer layer		Right or left hand	Right hand			P
1.1.2	Insulation						
	-Average thickness	mm	/	1.6	1.7	1.6	N
	-Minimum thickness	mm	Min.1.4	1.5	1.5	1.4	P
1.2	Neutral core						
1.2.1	Conductor						
	-Conductor material		ACSR	ACSR			P
1.2.2	Number of wires of conductor						
	-Aluminum wire		6	6			P
	-Steel-reinforced		1	1			P
	-Diameter of conductor		/	9.6			N
	-Cross section area	mm <sup>2</sup>	/	63			N
	-Twist direction of outer layer		/	Right hand			N
1.3	Cable assemblies						
	-Twist direction		Right-hand	Right-hand			P
	-Lay length of cable assemblies/diameter of one phase core	times	25-60	45			P
2	Electrical properties						
2.1	Conductor electrical resistance (25°C)						

Note: "P" means this item does meet the requirement, "F" means this item does not meet the requirement, "N" means this item does not require to the verdict.

Type and size:		Quadruplex 3×1/0+1/0AWG Costena		Reference No.	CT23-02168		
No.	Test Items	Unit	Requirements	Test Results			Verdict
	-Phase cores	Ω/km	Max.0.551	0.545	0.534	0.540	P
	-Neutral core	Ω/km	/	0.482			N
2.2	AC Voltage test (Immersed in water 30min,AC3kV,1min)		No breakdown	No breakdown	No breakdown	No breakdown	P
2.3	Insulation resistance at 20°C	MΩ·km	/	3160	3580	4010	N
3	Mechanical properties of insulation						
3.1	Phase cores						
3.1.1	Without ageing						
	-tensile strength	N/mm <sup>2</sup>	Min.12.4	20.5	22.6	22.4	P
	-elongation at break	%	Min.250	532	570	600	P
3.1.2	After ageing in air oven (121°C,168h)						
	-Percent of unaged value of tensile strength	%	≥75	114	97	113	P
	-Percent of unaged value of elongation at break	%	≥75	107	96	99	P
4	Strength of the conductor						
	-Phase cores	kN	Min.8.84	8.92	9.06	8.94	P
	-Neutral core	kN	/	15.8			N
5	Carbon black content	%	Min.2	2.3	2.1	2.1	P
End of Report							

Note: "P" means this item does meet the requirement, "F" means this item does not meet the requirement, "N" means this item does not require to the verdict.