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中国认可
国际互认
检测
TESTING
CNAS L0207

报告编号
Reference No

CT20-06769-1

检测报告

Test Report

样品名称
Name of sample

Aluminum conductor steel reinforced

样品型号
Type of sample

ACSR

委托方
Consigner

HANGZHOU EASY ELECTRIC WIRE AND CABLE
CO., LTD

试验类型
Kind of test

Commission test



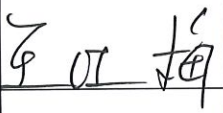

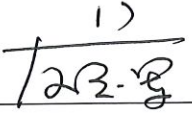
国家电线电缆质量监督检验中心
CHINA NATIONAL CENTRE FOR QUALITY
SUPERVISION AND TEST OF ELECTRIC WIRE AND CABLE



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China National Centre for Quality Supervision and Test of Electric Wire and Cable
Test Report

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Kind of test	Commission test	Reference No.	CT20-06769-1		
Name of sample	Aluminum conductor steel reinforced				
Type and Size	ACSR 477MCM (Pelican)	Date of test	2020-10-28~2020-11-02		
Consigner	Name	HANGZHOU EASY ELECTRIC WIRE AND CABLE CO., LTD			
	Address	Room B415, Future Technology Park, No.7 Long Tan Road Hangzhou, CHINA			
	Tel.	158 6927 4963	P.C.	/	Unit No. 057129
Manufacturer	Name	HANGZHOU EASY ELECTRIC WIRE AND CABLE CO., LTD			
	Address	Room B415, Future Technology Park, NO.7 Long Tan Road Hangzhou, CHINA			
	Tel.	158 6927 4963	P.C.	/	Unit No. 057129
Delivering mode	Supplied by consigner	Sample state at receiving	Normal	Receiving date	2020-10-28
Test standard	ASTM B232/B232M-17 Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Reinforced (ACSR)				
Verdict standard	Same as test standard				
Conclusion	"Mass per unit length of the Conductor" and "DC resistance at 20°C of the conductor" tested for the sample supplied with test results, and other items comply with the requirements of ASTM B232/B232M-17.				
Note	1. The consigner supplied name, type and size of the sample and is responsible for them; 2. Consigner request to verdict according to the requirement of ACSR/GA2 in ASTM B232/B232M-17.				
Tested by	Wang HongMei	Checked by	Wang Xu	Approved by	Fan YuJun
					
Date	2020.11.02	Date	2020.11.2	Date	2020-11-02



Type and size		ACSR 477MCM (Pelican)		Reference No.	CT20-06769-1	
No.	Test Items	Unit	Requirements	Test Results	Verdict	
1	Structure					
1.1	Number of Al wires	No.	18	18	P	
1.2	Number of steel wires	No.	1	1	P	
2	Conductor diameter	mm	20.68 ± 0.21	20.77	P	
3	Area of cross section of aluminium	mm ²	≥ 236.9 (241.7×0.98)	243.2	P	
4	Surface		The conductor shall be clean and free of imperfections not consistent with good commercial practice.	Pass	P	
5	Lay					
5.1	Direction of lay		The direction of lay of the outside layer shall be right hand, the direction of lay shall be reversed in successive layers.	Reverse, "right-hand"	P	
5.2	Inertness		The wires in each layer shall be evenly and closely stranded around the underlying wire or the core; where the conductor is cut, the wires shall remain in position or be readily replaced by hand and then remain approximately in position.	Evenly and Closely	P	
5.3	Lay ratio		Lay ratio of every layer should not more than the close inner one.	Pass	P	
5.3.1	Inner layer		10~16	12.4	P	
5.3.2	Outer layer		10~13	10.8	P	
6	Properties of Steel wire (stranded)					
6.1	Diameter	mm	$4.14^{+0.102}_{-0.076}$	4.143	P	

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		ACSR 477MCM (Pelican)		Reference No.	CT20-06769-1
No.	Test Items	Unit	Requirements	Test Results	Verdict
6.2	Tensile strength	MPa	≥ 1311 (1380×0.95)	1624	P
6.3	Stress at 1% extension	MPa	≥ 1170	1359	P
6.4	Elongation after fracture ($L_0=250$ mm)	%	≥ 4.0	4.8	P
6.5	Wrapping test (2d, 8turns)		No fracture shall occur.	No fracture occurred.	P
6.6	Zinc coating				
6.6.1	Mass of zinc coating	g/m^2	≥ 274	355	P
6.6.2	Adherence of zinc coating (5d)		The zinc coating shall not crack nor flake to such an extent that any zinc can be removed by rubbing with bare fingers.	No cracking, no flaking	P
7	Properties of Al wires (stranded)				
7.1	Diameter	mm	4.14 ± 0.04	4.15	P
7.2	Tensile strength				
7.2.1	Individual	MPa	≥ 152 (160×0.95)	164	P
7.2.2	Average	MPa	≥ 157 (165×0.95)	167	P
7.3	DC resistivity at 20°C				
7.3.1	Individual	$\Omega \cdot mm^2/m$	≤ 0.028265	0.02811	P
7.3.2	Average	$\Omega \cdot mm^2/m$	≤ 0.028172	0.02806	P

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Type and size		ACSR 477MCM (Pelican)		Reference No.	CT20-06769-1
No.	Test Items	Unit	Requirements	Test Results	Verdict
7.4	Bending (1d)		The wire shall not break.	No breakage occurred.	P
8	Mass per unit length of the Conductor	kg/km	/	775.3	N
9	DC resistance at 20°C of the conductor	Ω/km	/	0.1082	N
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.