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中国认可  
国际互认  
检测  
TESTING  
CNAS L0207

报告编号  
Reference No

CT20-06769-2

# 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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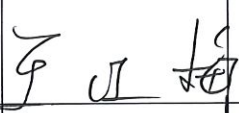

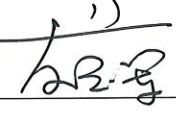
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China National Centre for Quality Supervision and Test of Electric Wire and Cable  
Test Report

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Kind of test	Commission test		Reference No.	CT20-06769-2	
Name of sample	Aluminum conductor steel reinforced				
Type and Size	ACSR 397.5MCM (Ibis)		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 397.5MCM (Ibis)		Reference No.	CT20-06769-2	
No.	Test Items	Unit	Requirements	Test Results	Verdict	
1	Structure					
1.1	Number of Al wires	No.	26	26	P	
1.2	Number of steel wires	No.	7	7	P	
2	Conductor diameter	mm	19.89±0.20	20.05	P	
3	Aluminium	mm <sup>2</sup>	≥197.3 (201.3×0.98)	204.4	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	Steel core		16~26	18.6	P	
5.3.2	Al wires layer					
5.3.2.1	Inner layer		10~16	13.4	P	
5.3.2.2	Outer layer		10~13	10.4	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 397.5MCM (Ibis)		Reference No.		CT20-06769-2	
No.	Test Items	Unit	Requirements	Test Results		Verdict	
6	Properties of Steel wires (stranded)						
6.1	Diameter						
6.1.1	Core wire	mm	$2.44 \pm 0.051$	2.489		P	
6.1.2	6-wires layer	mm	$2.44 \pm 0.051$	2.485	2.486	P	
6.2	Tensile strength						
6.2.1	Core wire	MPa	$\geq 1340$ ( $1410 \times 0.95$ )	1571		P	
6.2.2	6-wires layer	MPa	$\geq 1340$ ( $1410 \times 0.95$ )	1577	1573	P	
6.3	Stress at 1% extension	MPa	$\geq 1280$	1385		P	
6.4	Elongation after fracture ( $L_0=250$ mm)	%	$\geq 3.5$	4.5		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 <sup>2</sup>	$\geq 229$	272		P	
6.6.2	Adherence of zinc coating (4d)		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	$3.14 \pm 0.03$	3.16		P	
7.2	Tensile strength						
7.2.1	Individual	MPa	$\geq 152$ ( $160 \times 0.95$ )	174		P	
7.2.2	Average	MPa	$\geq 162$ ( $170 \times 0.95$ )	180		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 397.5MCM (Ibis)		Reference No.	CT20-06769-2	
No.	Test Items	Unit	Requirements	Test Results		Verdict
7.3	DC resistivity at 20°C					
7.3.1	Individual	$\Omega \cdot \text{mm}^2/\text{m}$	$\leq 0.028265$	0.02815		P
7.3.2	Average	$\Omega \cdot \text{mm}^2/\text{m}$	$\leq 0.028172$	0.02813		P
7.4	Bending (1d)		The wire shall not break.	No breakage occurred.		P
8	Mass per unit length of the Conductor	kg/km	/	832.1		N
9	DC resistance at 20°C of the conductor	$\Omega/\text{km}$	/	0.1326		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.