



220008343840



报告编号  
Reference No



CT22-03241-1

中国认可  
国际互认  
检测  
TESTING  
CNAS L0207

# 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



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




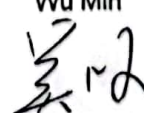
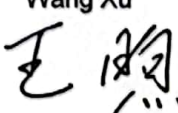
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Shanghai National Center of Testing and Inspection for Electric Cable and Wire Co., Ltd.  
China National Centre of Testing and Inspection for Electric Cable and Wire  
Test Report

Page 1 of 4

Kind of test	Commission test		Reference No.	CT22-03241-1	
Name of sample	Aluminum conductor steel reinforced				
Type and Size	ACSR 1272MCM (Bittern)		Date of test	2022-09-19~2022-11-21	
Consigner	Name: HANGZHOU EASY ELECTRIC WIRE AND CABLE CO., LTD				
	Address: Room 305, Building 2, No. 380 Fengxin Road, Hangzhou, China				
	Tel.	158 6927 4963	P.C.	/	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.	158 6927 4963	P.C.	/	Unit No. 057129
Delivering mode	Supplied by consigner	Sample state at receiving	Normal	Receiving date	2022-09-13
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 B 232/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 B 232/B232M-17.				
Tested by	Wang HongMel 	Checked by	Wu Min 	Approved by	Wang Xu 
Date	2022.11.23	Date	2022.11.24	Date	2022.11.24



Type and size		ACSR 1272MCM (Bittern)		Reference No.	CT22-03241-1	
No.	Test Items	Unit	Requirements	Test Results	Verdict	
1	Structure					
1.1	Number of Al wires	No.	45	45	P	
1.2	Number of steel wires	No.	7	7	P	
2	Conductor diameter	mm	34.16±0.34	34.42	P	
3	Area of cross section of aluminium	mm <sup>2</sup>	≥631.6 (644.5×0.98)	642.3	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	18.8	P	
5.3.2	Al wires layer					
5.3.2.1	Inner layer		10~17	16.8	P	
5.3.2.2	Adjacent outer layer		10~16	13.3	P	
5.3.2.3	Outer layer		10~13	10.5	P	

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



Type and size		ACSR 1272MCM (Bittern)		Reference No.		CT22-03241-1	
No.	Test Items	Unit	Requirements	Test Results		Verdict	
6	Properties of Steel wire (stranded)						
6.1	Diameter						
6.1.1	Core wire	mm	$2.85 \pm 0.051$	2.885		P	
6.1.2	6-wires layer	mm	$2.85 \pm 0.051$	2.863	2.883	P	
6.2	Tensile strength						
6.2.1	Core wire	MPa	$\geq 1340$ ( $1410 \times 0.95$ )	1447		P	
6.2.2	6-wires layer	MPa	$\geq 1340$ ( $1410 \times 0.95$ )	1481	1461	P	
6.3	Stress at 1% extension	MPa	$\geq 1280$	1285		P	
6.4	Elongation after fracture ( $L_0=250$ mm)	%	$\geq 3.5$	4.6		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>	$\geq 244$	335		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	$4.27 \pm 0.04$	4.26		P	
7.2	Tensile strength						
7.2.1	Individual tests	MPa	$\geq 152$ ( $160 \times 0.95$ )	169		P	
7.2.2	Average for a lot	MPa	$\geq 157$ ( $165 \times 0.95$ )	174		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 1272MCM (Bittern)		Reference No.	CT22-03241-1	
No.	Test Items	Unit	Requirements	Test Results	Verdict	
7.3	DC resistivity at 20°C					
7.3.1	Individual test	$\Omega \cdot \text{mm}^2/\text{m}$	$\leq 0.028265$	0.027961	P	
7.3.2	Average for a lot	$\Omega \cdot \text{mm}^2/\text{m}$	$\leq 0.028172$	0.027909	P	
7.4	Bending (1d)		The wire shall not break.	No breakage occurred.	P	
8	Mass per unit length of the Conductor	kg/km	/	2116.4	N	
9	DC resistance at 20°C of the conductor	$\Omega/\text{km}$	/	0.04252	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.

