



TEST REPORT

Model specification		ACAR 30*4.227+7*4.227		Inspection number		2302047	
NO.	Inspection Item	Unit	Standard Requirement		Test Result		Determi
1	Structure size						
	Number of aluminum single wires	Root	30		30		√
	Number of aluminum alloy	Root	7		7		√
	Aluminum single wire diameter	mm	4.227		4.229 4.225 4.227		√
	Aluminum alloy single wire diameter	mm	4.227		4.224 4.228 4.226		√
	Wire outer diameter	mm	29.59		29.61		√
2	aspect ratio						
	Outermost layer (aluminum)	Times	10-16		11.93		√
	Middle Layer	Times	10-16		13.24		-
	Inner layer (alloy)	Times	10-16		15.02		√
3	Twist		The outermost twist should be right-hand		Pass		√
			Adjacent layers should be twisted in the opposite direction		Pass		√
4	Appearance		There should be no visible defects on the surface of the stranded wire, such as obvious scratches, indentations, etc., and there should be no defects that are not commensurate with good products.		Pass		√
5	Aluminum wire properties						
	20°C single-line DC resistance	nΩ·m	≧ 28.264		27.868		√
	Minimum tensile strength	Mpa	≧ 152		168 159 165		√
	250mm elongation at break	%	≧ 1.9		2.5		
	Winding test		At a speed not exceeding 60r/min, wind 8 turns on the 1D core, back 6 turns, and then tightly wind 8 turns. The duralumin wire should not break.		Pass		√
6	Properties of Alloy Wire						
	20°C single-line DC resistance	nΩ·m	≧ 32.841		31.854		√
	Minimum tensile strength	Mpa	≧ 305		319 324 327		√
	250mm elongation at break	%	≧ 3		4.4		√
	Winding test		Wind the 1D core tightly for 8 turns at a speed not exceeding 60r/min, and the alloy wire should not break.		Pass		√
7	Overall performance						
	Weight per unit length	kg/km	1431		1431		√
	Breaking load	kN	≧ 93		96.72		√
	DC resistance at 20°C	Ω/km	≤ 0.0570		0.0561		√
Note: "√" indicates that the item is qualified "x" indicates that the item is not qualified "-" indicates that the item does not require testing							
Conclusion: The tested test items meet the requirements of ASTM B524 and pass the inspection.							