



CUSTOM Systems del Norte, S.A. de C.V.

Bare Conductor Cable

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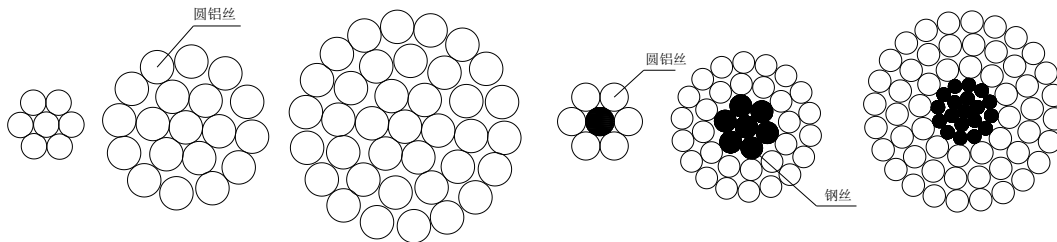
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Aluminum Stranded Wire, Aluminum Stranded Wire(REE),

Aluminum-Magnesium-Silicon Alloy Stranded Wire, Steel Stranded Wire

●Design & Construction



●Model, Product Name

Model	Product Name	Nominal Cross Section(Spec)	Standards
LJ(X)	Aluminum Stranded Wire(REE)	16-800	GB1179—1983 ASTM BS DIN IEC
LGJ(X)	Aluminum Stranded Wire(REE) Steel Conductor	10 / 2-1400 / 135	
LGJF(X)	Corrosion-resistant Steel Core (Rare Earth) Aluminum Stranded Wire	10 / 2-1400 / 135	
LH _A J	Heat-Treated Aluminum-Magnesium-Silicon Alloy Stranded Wire	50-1000	GB9329 -1988 ASTM B399 BS3242 DIN48201 IEC61089
LH _B J	Heat-Treated Aluminum-Magnesium-Silicon Rare Earth Alloy Stranded Wire	50-1000	
LH _A GJ	Steel Core Heat-Treated Aluminum-Magnesium-Silicon Alloy Stranded Wire	35 / 6-1000 / 125	
LH _B GJ	Steel Core Heat-Treated Aluminum-Magnesium-Silicon Rare Earth Alloy Stranded Wire	35 / 6-1000 / 125	
LH _A GJF	Corrosion-Resistant Steel Core Heat-Treated Aluminum-Magnesium-Silicon Alloy Stranded Wire	35 / 6-1000 / 125	

LH _B GJF	Corrosion-Resistant Steel Core Heat-Treated Aluminum-Magnesium-Silicon Rare Earth Alloy Stranded Wire	35 / 6-1000 / 125	
NRLH ₅₈ J	Thermal Resistant Aluminum Alloy Stranded Wire (58% IACS)	50-800	Q/ZQG003 —2002 EC197,198
NRLH ₆₀ J	Thermal Resistant Aluminum Alloy Stranded Wire (60% IACS)	50-800	
NRLH ₅₈ GJ	Thermal Resistant Aluminum Alloy Stranded Wire Steel Conductor(58% IACS)	50 / 8-1440 / 120	
NRLH ₆₀ GJ	Thermal Resistant Aluminum Alloy Stranded Wire Steel Conductor(50% IACS)	50 / 8-1440 / 120	
NRLH ₅₈ GJF	Corrosion-Resistant Steel Core Heat-Resistant Aluminum Alloy Stranded Wire(58% IACS)	50 / 8-1440 / 120	
NRLH ₆₀ GJF	Corrosion-Resistant Steel Core Heat-Resistant Aluminum Alloy Stranded Wire(60% IACS)	50 / 8-1440 / 120	
JL	Aluminum Stranded Wire	10-1500	GB1179 -1999
JLHA ₂ 、 JLHA ₁	Aluminum Alloy Stranded Wire	10-1250	
JL / G ₁ A、 JL / G ₁ B、 JL/G ₂ A、 JL / G ₂ B、 JL/G ₃ A	Aluminum Stranded Wire Steel Conductor	16 / 3-1250 / 102	
JUG ₁ AF、 JL / G ₂ AF、 JL / G ₃ AF	Corrosion-Resistant Steel Core Aluminum Stranded Wire	16 / 3-1250 / 102	
JLHA ₂ / G ₁ A、 JLHA ₂ / G ₁ B、 JLHA ₂ /G ₃ A	Steel Core Aluminum Alloy Stranded Wire	16 / 3-1120 / 105	
JLHA ₁ / G ₁ A、 JLHA ₁ / G ₁ B、 JLHA ₁ / G ₃ A	Steel Core Aluminum Alloy Stranded Wire	16 / 3-1120 / 106	
JL / LHA ₂ 、 JL / LHA ₁	Aluminum Alloy Core Aluminum Stranded Wire	16-1400	

A、 Aluminum Stranded Wire & Aluminium Conductor Steel Reinforced AAC and ACSR

Application: product is suitable for overhead installation

1、 Aluminum Stranded Wire/Aluminum Stranded Wire(REE)(GB 1179—1983)

Nominal Cross Section mm ²	Construction Core Counts / Diameter mm	Outer Diameter mm	DC resistance at 20°C shall not exceed Ω / km	Tensile Breaking Force N	Approx. Cable Weight kg / km	Calculated Ampacity		
						70°C	80°C	90°C
16	7 / 1.70	5.10	1.802	2840	43.5	84	100	112
25	7 / 2.15	6.45	1.127	4355	69.6	112	133	151
35	7 / 2.50	7.50	0.8332	5760	94.1	135	161	183
50	7 / 3.00	9.00	0.5786	7930	135.5	168	202	230
70	7 / 3.60	10.80	0.4018	10950	195.1	210	253	289
95	7 / 4.16	12.48	0.3009	14450	260.5	250	304	347
120	19 / 2.85	14.25	0.2373	19420	333.5	289	353	405
150	19 / 3.15	15.75	0.1943	23310	407.4	327	400	460
185	19 / 3.50	17.50	0.1574	28440	503.0	371	456	526
210	19 / 3.75	18.75	0.1371	32260	577.4	403	497	574
240	19 / 4.00	20.00	0.1205	36260	656.9	435	538	622
300	37 / 3.20	22.40	0.09689	46850	820.4	496	617	715
400	37 / 3.20	25.90	0.07247	61150	1097	588	738	859
500	37 / 3.70	29.12	0.05733	76370	1387	674	852	995
630	37 / 4.16	32.67	0.04577	91940	1744	768	977	1145
800	61 / 3.63	36.90	0.03588	115900	2225	880	1129	1328
	61 / 4.10							

2、Corrosion-Resistant Steel-Core Rare Earth Aluminum Stranded Wire"LGJ(X)、LGJF(X)
型 (GB 1179—1983)

Nominal Cross Section mm ²	Construction Core Counts / Diameter mm		Outer Diameter mm	DC resistance at 20°C shall not exceed Ω / km	Tensile Breaking Force N	Approx. Cable Weight kg / km	Calculated Ampacity		
	Aluminum	Steel					70°C	80°C	90°C
10 / 2	6 / 1.50	1/1.50	4.50	2.706	4120	42.9	66	78	87
16 / 3	6/1.85	1/1.85	5.55	1.779	6130	65.2	85	100	113
25 / 4	6 / 2.32	1/2.32	6.96	1.131	9290	102.6	111	131	149
35 / 6	6 / 2.72	1/2.72	8.16	0.8230	12630	141.0	134	158	180
50 / 8	6 / 3.20	1/3.20	9.60	0.5946	16870	195.1	161	191	218
50 / 30	12 / 2.32	7/2.32	11.60	0.5692	42620	372.0	166	195	218
70 / 10	6 / 3.80	1/3.80	11.40	0.4217	23390	275.2	194	232	266
70 / 40	12 / 2.72	7/2.72	13.60	0.4141	58300	511.3	196	230	257
95 / 15	26 / 2.15	7/1.67	13.61	0.3058	35000	380.8	252	306	351
95 / 20	7 / 4.16	7/1.85	13.87	0.3019	37200	408.9	253	277	319
95 / 55	12 / 3.20	7/3.20	16.00	0.2992	78110	707.7	250	270	301
120 / 7	18 / 2.90	1/2.90	14.50	0.2422	27570	379.0	287	350	401
120 / 20	26 / 2.38	7/1.85	15.07	0.2496	41000	466.8	285	348	399
120 / 25	7 / 4.72	7/2.10	15.74	0.2345	47880	526.6	265	315	365
120 / 70	12 / 3.60	7/3.60	18.00	0.2364	98370	895.6	258	301	335
150 / 8	18 / 3.20	1/3.20	16.00	0.1989	32860	461.4	323	395	454
150 / 20	24 / 2.78	7/1.85	16.67	0.1980	46630	549.4	326	400	461
150 / 25	26 / 2.70	7/2.10	17.10	0.1939	54110	601.0	331	407	469
156 / 35	30 / 2.50	7/2.50	17.50	0.1962	65020	676.2	331	407	469

Corrosion-Resistant Steel-Core Rare Earth Aluminum Stranded Wire"LGJ(X)、LGJF(X)型
(GB 1179—1983)

Nominal Cross Section mm ²	Construction Core Counts / Diameter mm		Outer Diameter mm	DC resistance at 20°C shall not exceed Ω / km	Calculated the Tensile Breaking Force N	Approx. Cable Weight kg / km	Calculated Ampacity		
	Aluminum	Steel					70°C	80°C	90°C
185 / 10	18 / 3.60	1 / 3.60	18.00	0.1572	40880	584.0	372	458	528
185 / 25	24 / 3.15	7 / 2.10	18.90	0.1542	59420	706.1	379	468	540
185 / 30	26 / 2.98	7 / 2.32	18.88	0.1592	64320	732.6	373	460	531
185 / 45	30 / 2.80	7 / 2.80	19.60	0.1564	80190	848.2	379	469	541
210 / 10	18 / 3.80	1 / 3.80	19.00	0.1411	45140	650.7	397	490	565
210 / 25	24 / 3.33	7 / 2.22	19.98	0.1380	65990	789.1	405	501	579
210 / 35	26 / 3.22	7 / 2.50	20.38	0.1363	74250	853.9	409	507	586
210 / 50	30 / 2.98	7 / 2.98	20.86	0.1381	90830	960.8	409	507	586
240 / 30	24 / 3.60	7 / 2.40	21.60	0.1181	75620	922.2	445	552	639
240 / 40	26 / 3.42	7 / 2.66	21.66	0.1209	83370	964.3	440	546	633
240 / 55	30 / 3.20	7 / 3.20	22.40	0.1198	102100	1108	445	554	641
300 / 15	42 / 3.00	7 / 1.67	23.01	0.09724	68060	939.8	495	615	711
300 / 20	45 / 2.93	7 / 1.95	23.43	0.09520	75680	1002	502	624	722
300 / 25	48 / 2.85	7 / 2.22	23.76	0.09433	83410	1058	505	628	726
300 / 40	24 / 3.99	7 / 2.66	23.94	0.09614	92220	1133	503	628	728
300 / 50	26 / 3.83	7 / 2.98	24.26	0.09636	103400	1210	504	629	730
300 / 70	30 / 3.60	7 / 3.60	25.20	0.09463	128000	1402	512	641	745
400 / 20	42 / 3.51	7 / 1.95	26.91	0.07104	88850	1286	595	746	864
400 / 25	45 / 3.33	7 / 2.22	26.64	0.07370	95940	1295	584	730	845
400 / 35	48 / 3.22	7 / 2.50	26.82	0.07389	103900	1349	583	729	844
400 / 50	54 / 3.07	7 / 3.07	27.63	0.07232	123400	1511	592	741	857
400 / 65	26 / 4.42	7 / 3.44	28.00	0.07236	135200	1611	597	752	876
400 / 95	30 / 4.16	19 / 2.50	29.14	0.07087	171300	1860	608	767	895
500 / 35	45 / 3.75	7 / 2.50	30.00	0.05812	119500	1642	670	842	977
500 / 45	48 / 3.60	7 / 2.80	30.00	0.05912	128100	1688	664	834	967
500 / 65	54 / 3.44	7 / 3.44	30.96	0.05760	154000	1897	676	850	983
630 / 45	45 / 4.20	7 / 2.80	33.60	0.04633	148700	2060	763	964	1120
630 / 55	48 / 4.12	7 / 3.20	34.32	0.04514	164400	2209	775	979	1136
630 / 80	54 / 3.87	19 / 2.32	34.82	0.04551	192900	2388	774	977	1131
720 / 50	45 / 4.53	7 / 3.02	36.24	0.02490	170600	2397	830	1040	1220
800 / 55	45 / 4.80	7 / 3.20	38.40	0.03547	191500	2690	887	1126	1310
800 / 70	48 / 4.63	7 / 3.60	38.58	0.03574	207000	2791	884	1121	1301
800 / 100	54 / 4.33	19 / 2.60	38.98	0.03635	241100	2991	878	1113	1288
1400 / 120	84 / 4.60	19 / 2.80	50.80	0.02072	355000	4781	1270	1560	1805
1400 / 135	88 / 4.50	19 / 3.00	51.00	0.02067	375300	4927	1272	1563	1808

Noted: (1) Models marked with "X" are of the rare earth type, while those marked with "F" are of the anti-corrosive type.

(2) When calculating the weight of the LGJF type, the weight of the anti-corrosive coating should be added to the specified values in the above table. If the steel core is coated with anti-corrosive material, an additional 2% should be added. If the anti-corrosive coating is applied between the internal layers of aluminum and steel, an additional 5% should be added.

B、 All Aluminium Alloy Conductors/Aluminium Alloy Conductor Steel ReinforcedAAAC and AACSR

Application: suitable for mountainous and hilly areas, regions with heavy snow and ice, and long-span applications.

1、 Heat-Treated Aluminum-Magnesium-Silicon Alloy Stranded Wire LH_{AJ}及LH_{BJ}(GB 9329—1988)

Nominal Cross Section mm ²	Core Counts Diameter mm	Outer Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km	Calculated the Tensile Breaking Force kN	Approx. Cable Weight kg / km	Calcutaed Ampacity		
						70°C	80°C	90°C
50	7 / 3.02	9.06	0.66262	14.00	137.1	159	191	218
70	7 / 3.57	10.71	0.47418	19.57	191.6	195	235	269
95	7 / 4.16	12.48	0.34921	26.57	260.2	234	285	326
120	19 / 2.84	14.20	0.27745	33.62	330.9	270	330	379
150	19 / 3.17	15.85	0.22269	41.88	412.2	308	378	436
185	19 / 3.52	17.60	0.18061	51.64	508.3	350	431	497
210	19 / 3.75	18.75	0.15913	58.61	576.8	377	466	539
240	19 / 4.01	20.05	0.13917	67.02	659.6	409	507	587
300	37 / 3.21	22.47	0.11181	83.63	825.2	466	581	675
400	37 / 3.71	25.97	0.08370	111.71	1102.3	553	695	810
500	37 / 4.15	29.05	0.06689	139.78	1379.2	631	798	933
630	61 / 3.63	32.67	0.05310	176.32	1742.2	721	919	1078
800	61 / 4.09	36.81	0.04183	223.84	2211.7	826	1061	1249
1000	61 / 4.57	41.13	0.03351	279.46	2761.3	933	1209	1429

2、Steel Core Heat-Treated Aluminum-Magnesium-Silicon Alloy Stranded Wire L_H_AGJ、L_H_BGJ L_H_AGJF L_H_BGJF(GB 9329—1988) AACSR

Nominal Cross Section mm ²	Construction Core Counts / Diameter mm		Outer Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km	Calculated Tensile Break Force kN	Approx. Cable Weight kg / km	Calculated Ampacity		
	Aluminum Alloy	Steel					70°C	80°C	90°C
35 / 6	6 / 2.72	1 / 2.72	8.16	0.95501	16.86	140.7	126	150	170
50 / 8	6 / 3.20	1 / 3.20	9.60	0.68999	23.05	194.8	153	182	208
70 / 10	6 / 3.80	1 / 3.80	11.40	0.48930	32.51	274.7	186	222	254
70 / 40	12 / 2.72	7 / 2.72	13.60	0.48058	66.78	510.1	188	221	248
95 / 55	12 / 3.20	7 / 3.20	16.00	0.34722	90.46	706.0	224	264	296
120 / 7	18 / 2.90	1 / 2.90	14.50	0.28114	42.47	378.5	269	329	379
120 / 70	12 / 3.60	7 / 3.60	18.00	0.27435	114.50	893.6	252	297	332
150 / 8	18 / 3.20	1 / 3.20	16.00	0.23090	51.43	460.9	303	372	429
150 / 25	26 / 2.70	7 / 2.10	17.10	0.22515	72.18	600.1	311	383	442
185 / 10	18 / 3.60	1 / 3.60	18.00	0.18244	65.09	583.3	349	431	498
185 / 30	26 / 2.98	7 / 2.32	18.88	0.18483	86.98	731.5	351	434	501
210 / 10	18 / 3.80	1 / 3.80	19.00	0.16374	72.52	649.9	373	461	533
210 / 35	26 / 3.22	7 / 2.50	20.38	0.15830	101.35	852.6	385	477	553
240 / 30	24 / 3.60	7 / 2.40	21.60	0.13712	107.85	921.0	418	520	603
240 / 40	26 / 3.42	7 / 2.66	21.66	0.14033	114.48	962.9	414	515	597
300 / 20	45 / 2.93	7 / 1.95	23.43	0.11054	113.70	1001.0	472	589	683
300 / 50	26 / 3.83	7 / 2.98	24.26	0.11189	143.62	1207.9	473	593	689
300 / 70	30 / 3.60	7 / 3.60	25.20	0.10987	168.36	1400.0	481	604	703
400 / 25	45 / 3.33	7 / 2.22	26.64	0.08558	146.97	1293.7	549	689	800
400 / 50	54 / 3.07	7 / 3.07	27.63	0.08399	174.67	1509.6	557	700	813
400 / 95	30 / 4.16	19 / 2.50	29.14	0.08228	226.01	1857.4	572	723	845
500 / 35	45 / 3.75	7 / 2.50	30.00	0.06748	185.22	1640.6	631	796	927
500 / 65	54 / 3.44	7 / 3.44	30.96	0.06689	219.31	1895.4	635	802	934
630 / 45	45 / 4.20	7 / 2.80	33.60	0.05379	232.34	2058.0	719	913	1064
630 / 80	54 / 3.87	19 / 2.32	34.82	0.05285	278.14	2385.2	730	926	1077
800 / 55	45 / 4.80	7 / 3.20	38.40	0.04118	301.50	2688.1	834	1067	1250
800 / 100	54 / 4.33	19 / 2.60	38.98	0.04222	348.57	2988.5	829	1058	1230
1000 / 45	72 / 4.21	7 / 2.80	42.08	0.03348	343.71	3105.9	964	1255	1481
1000 / 125	54 / 4.84	19 / 2.90	43.54	0.03379	434.91	3729.8	936	1200	1399

1. Noted: When calculating the weight of the L_H_AGJF L_H_BGJF type, the weight of the anti-corrosive coating should be added to the specified values in the above table. If the steel core is coated with anti-corrosive material, an additional 2% should be added. If the anti-corrosive coating is applied between the internal layers of aluminum and steel, an additional 5% should be added.

C、 Thermal Resistant Aluminum Alloy Conductors/ Thermal Resistant Aluminum Alloy Stranded Wire-Steel Conductors

Application: Suitable for capacity expansion of circuits and renovation of old circuits

1、 58%(60%)IACS-Thermal Resistant Aluminum Alloy Stranded Wire

2、 NRLH₅₈GJ NRLH₆₀GJ NRLH₅₈GJF NRLH₆₀GJF QG/ZQG003—2002

Nominal Cross Section mm ²	Construction Core Counts / Diameter mm		Outer Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km	Calculated Tensile Break Force kN	Approx. Cable Weight kg / km	Calculated Ampacity		
	Aluminum Alloy	Steel					90°C	110°C	150°C
50 / 8	6 / 3.20	1 / 3.20	9.60	0.6254	16200	195	216	256	326
70 / 10	6 / 3.80	1 / 3.80	11.40	0.4435	22850	275	256	317	407
70 / 40	12 / 2.72	7 / 2.72	13.60	0.4356	57230	511	249	303	401
95 / 20	7 / 4.16	7 / 1.85	13.87	0.3176	36040	409	295	355	490
95 / 55	12 / 3.20	7 / 3.20	16.00	0.3147	76760	708	298	365	498
120 / 7	18 / 2.90	1 / 2.90	14.50	0.2547	26180	379	337	469	594
120 / 25	7 / 4.72	7 / 2.10	15.74	0.2467	46420	527	335	467	591
120 / 70	12 / 3.60	7 / 3.60	18.00	0.2486	97150	896	383	410	570
150 / 8	18 / 3.20	1 / 3.20	16.00	0.2092	30870	461	438	533	676
150 / 20	24 / 2.78	7 / 1.85	16.67	0.2083	44920	549	452	550	699
185 / 10	18 / 3.60	1 / 3.60	18.00	0.1653	39070	584	508	620	789
185 / 25	24 / 3.15	7 / 2.10	18.90	0.1622	56850	706	510	623	792
185 / 30	26 / 2.98	7 / 2.32	18.88	0.1674	62140	733	512	625	796
210 / 10	18 / 3.80	1 / 3.80	19.00	0.1484	43530	651	545	664	847
210 / 25	24 / 3.33	7 / 2.22	19.98	0.1452	63530	789	555	676	863
210 / 35	26 / 3.22	7 / 2.50	20.38	0.1434	71280	854	565	690	882
210 / 50	30 / 2.98	7 / 2.98	20.86	0.1452	88400	961	570	695	887
240 / 30	24 / 3.60	7 / 2.40	21.60	0.1242	73170	922	613	756	967
240 / 40	26 / 3.42	7 / 2.66	21.66	0.1271	80570	964	610	746	956
240 / 55	30 / 3.20	7 / 3.20	22.40	0.1260	98770	1108	612	758	969
300 / 15	42 / 3.00	7 / 1.67	23.01	0.10230	64570	940	695	848	1082
300 / 20	45 / 2.93	7 / 1.95	23.43	0.10012	72140	1002	697	850	1084
300 / 25	48 / 2.85	7 / 2.22	23.76	0.09920	79830	1058	698	851	1085
300 / 40	24 / 3.99	7 / 2.66	23.94	0.10111	89880	1133	700	858	1090
300 / 50	26 / 3.83	7 / 2.98	24.26	0.10135	101000	1210	702	861	105
600 / 70	30 / 3.60	7 / 3.60	25.20	0.09952	125000	1402	718	882	1134
400 / 20	42 / 3.51	7 / 1.95	26.91	0.07471	86270	1286	816	998	1275
400 / 25	45 / 3.33	7 / 2.22	26.64	0.07751	90410	1295	817	999	1276
400 / 35	48 / 3.22	7 / 2.50	26.82	0.07772	98510	1349	819	998	1270
400 / 50	54 / 3.07	7 / 3.07	27.63	0.07606	117900	1511	821	998	1269
400 / 65	26 / 4.42	7 / 3.44	28.00	0.07610	130400	1611	826	1015	1270
400 / 95	30 / 4.16	19 / 2.50	29.14	0.07453	166000	1860	863	1065	1374
500 / 35	45 / 3.75	7 / 2.50	30.00	0.06112	114600	1642	944	1156	1481
500 / 45	48 / 3.60	7 / 2.80	30.00	0.06218	123300	1688	948	1157	1480
500 / 65	54 / 3.44	7 / 3.44	30.96	0.06058	148000	1897	950	1159	1478
630 / 45	45 / 4.20	7 / 2.80	33.60	0.04873	140600	2060	1083	1325	1701
630 / 55	48 / 4.12	7 / 3.20	34.32	0.04747	156100	2209	1088	1328	1700
630 / 80	54 / 3.87	19 / 2.32	34.82	0.04786	187900	2388	1091	1331	1698
800 / 55	45 / 4.80	7 / 3.20	38.40	0.03731	181800	2690	1268	1559	2012
800 / 70	48 / 4.63	7 / 3.60	38.58	0.03759	197300	2791	1265	1557	2010
800 / 100	54 / 4.33	19 / 2.60	38.98	0.03823	231600	2991	1251	1508	1933
1000 / 125	54 / 4.84	19 / 2.90	43.54	0.03060	288800	3733	1432	1744	2230

1440 / 120	84 / 4.67	19 / 2.80	51.36	0.02114	344600	4898	1871	2352	3093
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Notes:

- (1) The resistance of the NRLH60GJ stranded wire is the resistance of the same cross-section NRLH58GJ wire divided by 1.03449.
- (2) The calculated weight of NRLH58GJF and NRLH60GJF types should include the weight of the anti-corrosion coating based on the same specifications, with the added values being: a 2% increase for the steel core with anti-corrosion coating, and a 5% increase for the anti-corrosion coating applied between the layers of internal aluminum and steel.
- (3) The current-carrying capacity of 60% IACS steel core heat-resistant aluminum alloy stranded wire is 1.0171 times that of 58% IACS wire of the same specifications.

2、58%(60%)IACS-Thermal Resistant Aluminum Alloy Stranded Wire NRLH₅₈J NRLH₆₀JQ / ZQG003—2002

Nominal Cross Section mm ²	Construction Core Counts / Diameter mm	Outer Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km	Calculated Tensile Breaking Force N	Approx. Cable Weight kg / km	Calculated Ampacity		
						90°C	110°C	150°C
50	7 / 3.00	9.00	0.6085	7379	135.5	227	272	340
70	7 / 3.60	10.80	0.4226	10288	195.1	281	337	423
95	7 / 4.16	12.48	0.3165	13280	260.5	341	411	517
120	19 / 2.85	14.25	0.2496	18070	333.5	396	479	604
150	19 / 3.15	15.75	0.2043	21380	407.4	456	552	699
185	19 / 3.50	17.50	0.1655	26390	503.0	521	633	803
210	19 / 3.75	18.75	0.1442	30300	577.4	564	687	873
240	19 / 4.00	20.00	0.4267	33340	656.9	614	749	954
300	37 / 3.20	22.40	0.1019	42960	820.4	707	865	1104
400	37 / 3.70	25.90	0.07622	57440	1097	848	1042	1337
500	37 / 4.16	29.12	0.06030	70230	1387	975	1202	1549
630	61 / 3.63	32.67	0.04814	86360	1744	1121	1389	1799
800	61 / 4.10	36.90	0.03774	106540	2225	1289	1605	2092

Note: The resistance of the NRLH60J type stranded wire is the resistance of the same cross-sectional NRLH58J type stranded wire divided by 1.03449.

The current-carrying capacity of the 60% IACS heat-resistant aluminum alloy stranded wire is 1.0171 times that of the same specifications of the 58% IACS wire.

Note: Current-Carrying Capacity Calculation Conditions:

Ambient temperature: 40°C

Wind speed: 0.5 m/s

Solar radiation intensity: 1000 W/m²

CONFIDENCIAL

Ningbo Qrunning Cable Co., Ltd. Manufacturer and CUSTOM Systems del Norte, S.A. de C.V. America distribution and infrastructure development Company
Calzada Del Valle 255 Interior 106 Col. Del Valle, CP 66220, San Pedro Garza García, Nuevo León Tel. (81)8262.8294

Radiation coefficient: 0.9

Absorption coefficient: 0.9

D、 AAC
1. (GB/T1179—1999)

Nominal Cross Section mm ²	Core Counts	Diameter (mm)		Approx. Cable Weight kg / km	Calculated Tensile Breaking Force N	DC Resistance at 20°C Shall Not Exceed Ω / km
		Single Core	Stranded			
10	7	1.35	4.05	27.4	1.95	2.8633
16	7	1.71	5.12	43.8	3.04	1.7896
25	7	2.13	6.40	68.4	4.50	1.1453
40	7	2.70	8.09	109.4	6.80	0.7158
63	7	3.39	10.2	172.3	10.39	0.4545
100	19	2.59	12.9	274.8	17.00	0.2877
125	19	2.89	14.5	343.6	21.25	0.2302
160	19	3.27	16.4	439.8	26.40	0.1798
200	19	3.66	18.3	549.7	32.00	0.1439
250	19	4.09	20.5	687.1	40.00	0.1151
315	37	3.29	23.0	867.9	51.97	0.0916
400	37	3.71	26.0	1102.0	64.00	0.0721
450	37	3.94	27.5	1239.8	72.00	0.0641
500	37	4.15	29.0	1377.6	80.00	0.0577
560	37	4.39	30.7	1542.9	89.60	0.0515
630	61	3.63	32.6	1738.3	100.80	0.0458
710	61	3.85	34.6	1959.1	113.60	0.0407
800	61	4.09	36.8	2207.4	128.00	0.0361
900	61	4.33	39.0	2483.3	144.00	0.0321
1000	61	4.57	41.1	2759.2	160.00	0.0289
1120	91	3.96	43.5	3093.5	179.20	0.0258
1250	91	4.18	46.0	3452.6	200.00	0.0231
1400	91	4.43	48.7	3866.9	224.00	0.0207
1500	91	4.58	50.4	4143.1	240.00	0.0193

E、Aluminum Alloy Stranded Wire JLHA2JLHA1(GB / T 1179—1999)

JLHA₂

Spec.	Nominal Cross Section mm ²	Number of Cores	Diameter (mm)		Approx. Cable Weight kg / km	Calculated Tensile Breaking Force N	DC Resistance at 20°C Shall Not Exceed Ω / km
			Single Core	Stranded			
16	18.4	7	1.83	5.49	50.4	5.43	1.7896
25	28.8	7	2.29	6.86	78.7	8.49	1.1453
40	46.0	7	2.89	8.68	125.9	13.58	0.7158
63	72.5	7	3.63	10.9	198.3	21.39	0.4545
100	115	19	2.78	13.9	316.3	33.95	0.2877
125	144	19	3.10	15.5	395.4	42.44	0.2302
160	184	19	3.51	17.6	506.1	54.32	0.1798
200	230	19	3.93	19.6	632.7	67.91	0.1439
250	288	19	4.39	22.0	790.8	84.88	0.1151
315	363	37	3.53	24.7	998.9	106.95	0.0916
400	460	37	3.98	27.9	1268.4	135.81	0.0721
450	518	37	4.22	29.6	1426.9	152.79	0.0641
500	575	37	4.45	31.2	1585.5	169.76	0.0577
560	645	61	3.67	33.0	1778.4	190.14	0.0516
630	725	61	3.89	35.0	2000.7	213.90	0.0458
710	817	61	4.13	37.2	2254.8	241.07	0.0407
800	921	61	4.38	39.5	2540.6	271.62	0.0361
900	1036	91	3.81	41.8	2861.1	305.58	0.0321
1000	1151	91	4.01	44.1	3179.0	339.53	0.0289
1120	1289	91	4.25	46.7	3560.5	380.27	0.0258
1250	1439	91	4.49	49.4	3973.7	424.41	0.0231

JLHA₁

Spec.	Nominal Cross Section mm ²	Number of Cores	Diameter (mm)		Approx. Cable Weight kg / km	Calculated Tensile Breaking Force N	DC Resistance at 20°C Shall Not Exceed Ω / km
			Single Core	Stranded			
16	18.6	7	1.84	5.52	50.8	6.04	1.7896
25	29.0	7	2.30	6.90	79.5	9.44	1.1453
40	46.5	7	2.91	8.72	127.1	15.10	0.17158
63	73.2	7	3.65	10.9	200.2	23.06	0.4545
100	116	19	2.79	14.0	319.3	37.76	0.2877
125	145	19	3.12	15.6	399.2	47.20	0.2302
160	186	19	3.53	17.6	511.0	58.56	0.1798
200	232	19	3.95	19.7	638.7	73.20	0.1439
250	290	19	4.41	22.1	798.4	91.50	0.1151
315	366	37	3.55	24.8	1008.4	115.29	0.0916
400	465	37	4.00	28.0	1280.5	146.40	0.0721
450	523	37	4.24	29.7	1440.5	164.70	0.0641
500	581	37	4.47	31.3	1600.6	183.00	0.0577
560	651	61	3.69	33.2	1795.3	204.96	0.0516
630	732	61	3.91	35.2	2019.8	230.58	0.0458
710	825	61	4.15	37.3	2276.2	259.86	0.0407
800	930	61	4.40	39.6	2564.8	292.80	0.0361
900	1046	91	3.83	42.1	2888.3	329.40	0.0321
1000	1162	91	4.03	44.4	3209.3	366.00	0.0289
1120	1301	91	4.27	46.9	3594.4	409.92	0.0258

F、Steel Conductor Aluminum Stranded Wire JL/G1A、JL/G1B、JL/G2A、JL/G2B、JL/G3A(GB/T 1179—1999)

Spec.	Steel %	Nominal Cross Section			Single Core Counts		Single Core Diameter		Diameter		Approx. Cable Weight kg / km	Calculated Tensile Breaking Force N					DC Resistance at 20°C Shall Not Exceed Ω / km
		Aluminum	Steel	Total	A	S	Aluminum	Steel	Steel Core	Stranded Core		JL / G ₁ A	JL / G ₁ B	JLG ₂ A	JL / G ₂ B	JL / G ₃ A	
mm ²					mm		mm		kN								
16	17	16	2.67	18.7	6	1	1.84	1.84	1.84	5.53	64.6	6.08	5.89	6.45	6.27	6.83	1.7934
25	17	25	4.17	29.2	6	1	2.30	2.30	2.30	6.91	100.9	9.13	8.83	9.71	9.42	10.25	1.1478
10	17	40	6.67	46.7	6	1	2.91	2.91	2.91	8.74	161.5	14.40	13.93	15.33	14.87	16.20	0.7174
63	17	63	10.5	73.5	6	1	3.66	3.66	3.66	11.0	254.4	21.63	20.58	22.37	21.63	24.15	0.4555
100	17	100	16.7	117	6	1	4.61	4.61	4.61	13.8	403.8	34.33	32.67	35.50	34.33	38.33	0.2869
125	6	125	6.94	132	18	1	2.97	2.97	2.97	14.9	397.9	29.17	28.68	30.14	29.65	31.04	0.2304
125	16	125	20.4	145	26	7	2.47	1.92	5.77	15.7	503.9	45.69	44.27	48.54	47.12	51.39	0.2310
160	6	160	8.89	169	18	1	3.36	3.36	3.36	16.8	509.3	36.18	35.29	37.42	36.80	38.67	0.1800
160	16	160	26.1	186	26	7	2.80	2.18	6.53	17.7	644.9	57.69	55.86	61.34	59.51	64.99	0.1805
200	6	200	11.1	211	18	1	3.76	3.76	3.76	18.8	636.7	44.22	43.11	45.00	44.22	46.89	0.1440
200	16	200	32.6	233	26	7	3.13	2.43	7.30	19.8	806.2	70.13	67.85	74.69	72.41	78.93	0.1444
250	10	250	24.6	275	22	7	3.80	2.11	6.34	21.6	880.6	68.72	67.01	72.16	70.44	75.60	0.1154
250	16	250	40.7	291	26	7	3.50	2.72	8.16	22.2	1007.7	87.67	84.82	93.37	90.52	98.66	0.1155
315	7	315	21.8	337	45	7	2.99	1.99	5.97	23.9	1039.6	79.03	77.51	82.08	80.55	85.13	0.0917
315	16	315	51.3	366	26	7	3.93	3.05	9.16	24.9	1269.7	106.83	101.70	114.02	110.43	121.20	0.0917
400	7	400	27.7	428	45	7	3.36	2.24	6.73	26.9	1320.1	98.36	96.42	102.23	100.29	106.10	0.0722
400	13	400	51.9	452	54	7	3.07	3.07	9.21	27.6	1510.3	123.04	117.85	130.30	126.67	137.56	0.0723
450	7	450	31.1	481	45	7	3.57	2.38	7.14	28.5	1485.2	107.47	105.29	111.82	109.64	115.87	0.0642
450	13	450	58.3	508	54	7	3.26	3.26	9.77	29.3	1699.1	138.42	132.58	146.58	142.50	154.75	0.0643
500	7	500	34.6	535	45	7	3.76	2.51	7.52	30.1	1650.2	119.41	116.99	124.25	121.83	128.74	0.0578
500	13	500	64.8	565	54	7	3.43	3.43	10.3	30.9	1887.9	153.80	147.31	162.87	158.33	171.94	0.0578
560	7	560	38.7	599	45	7	3.98	2.65	7.96	31.8	1848.2	133.74	131.03	139.16	136.45	144.19	0.0516
560	13	560	70.9	631	54	19	3.63	2.18	10.9	32.7	2103.4	172.59	167.63	182.52	177.56	192.45	0.0516
630	7	630	43.6	674	45	7	4.22	2.81	8.44	33.8	2079.2	150.45	147.40	156.55	153.50	162.21	0.0459
630	13	630	79.8	710	54	19	3.85	2.31	11.6	34.7	2366.3	191.77	186.19	202.94	197.36	213.32	0.0459
710	7	710	49.1	759	45	7	4.48	2.99	8.96	35.9	2343.2	169.56	166.12	176.43	172.99	182.81	0.0407
710	13	710	89.9	800	54	19	4.09	2.45	12.3	36.8	2666.8	216.12	209.83	228.71	222.42	240.41	0.0407
800	4	800	34.6	835	72	7	3.76	2.51	7.52	37.6	2480.2	167.41	164.99	172.25	169.83	176.74	0.0361
800	8	800	66.7	867	84	7	3.48	3.48	10.4	38.3	2732.7	205.33	198.67	214.67	210.00	224.00	0.0362
800	13	800	101	901	54	19	4.34	2.61	13.0	39.1	3004.9	243.52	236.43	257.71	250.61	270.88	0.0362
900	4	900	38.9	939	72	7	3.99	2.66	7.98	39.9	2790.2	188.33	185.61	193.78	191.06	198.83	0.0321
900	8	900	75.0	975	84	7	3.69	3.69	11.1	40.6	3074.2	226.50	219.00	231.75	226.50	244.50	0.0322
1000	4	1000	43.2	1043	72	7	4.21	2.80	8.41	42.1	3100.3	209.26	206.23	215.31	212.28	220.93	0.0289
1120	4	1120	47.3	1167	72	19	4.45	1.78	8.90	44.5	3464.9	234.53	231.22	241.15	237.84	247.77	0.0258
1120	8	1120	91.2	1211	84	19	4.12	2.47	12.4	45.3	3811.5	283.17	276.78	295.94	289.55	307.79	0.0258
1250	4	1250	52.8	1303	72	19	4.70	1.88	9.40	47.0	3867.1	261.75	258.06	269.14	265.44	276.53	0.0231
1250	8	1250	102	1352	84	19	4.35	2.61	13.1	47.9	4253.9	316.04	308.91	330.29	323.16	343.52	0.0232

Note : The performance in the table also applies to the corrosion-resistant steel core aluminum stranded wires JFL/G1AF, JFL/G2AF, and JFL/G3AF; however, the unit length mass should be calculated according to the method described in Appendix C.

G、 Aluminum Alloy Steel Conductor JLHA2 / G1A、 JLHA2 / G1B、 JLHA2 / G3A(GB / T 1179—1999)

Spec.	Steel %	Nominal Cross Section			Single Core Count		Single Core Diameter		Diameter		Approx. Cable	Calculated Tensile Breaking Force			DC Resistance at 20°C Shall Not Exceed Ω / km
		AA	Steel	Total	A	Steel	AA	Steel	Steel Core	Stra nded	Weight kg / km	JLHA ₂ /G ₁ A	JLHA ₂ /G ₁ B	JLHA ₂ /G ₃ A	
		mm ²			A	Steel	mm		mm			kN			
16	17	18.4	3.07	21.5	6	1	1.98	1.98	1.98	5.93	74.4	9.02	8.81	9.88	1.7934
25	17	28.8	4.80	33.6	6	1	2.47	2.47	2.47	7.41	116.2	13.96	13.62	15.25	1.1478
40	17	46.0	7.67	53.7	6	1	3.13	3.13	3.13	9.38	185.9	22.02	21.25	24.17	0.7174
63	17	72.5	12.1	84.6	6	1	3.92	3.92	3.92	11.8	292.8	34.68	33.48	37.58	0.4555
100	6	115	6.39	121	18	1	2.85	2.85	2.85	14.3	366.4	41.24	40.79	42.97	0.2880
125	6	144	7.99	152	18	1	3.19	3.19	3.19	16.0	458.0	51.23	50.43	53.47	0.2304
125	16	144	23.4	167	26	7	2.65	2.06	6.19	16.8	579.9	69.86	68.22	76.42	0.2310
160	6	184	10.2	194	18	1	3.61	3.61	3.61	18.0	586.2	65.58	64.56	68.03	0.1800
160	16	184	30.0	214	26	7	3.00	2.34	7.01	19.0	742.3	88.52	86.42	96.61	0.1805
200	6	230	12.8	243	18	1	4.04	4.04	4.04	20.2	732.8	81.97	80.69	85.04	0.144
200	16	230	37.5	268	26	7	3.36	2.61	7.83	21.3	927.9	110.64	108.02	120.77	0.1444
250	10	288	28.3	316	22	7	4.08	2.27	6.80	23.1	1013.5	117.09	115.12	124.72	0.1154
250	16	288	46.9	335	26	7	3.75	2.92	8.76	23.8	1159.8	138.31	135.03	150.96	0.1155
315	7	363	25.1	388	45	7	3.20	2.14	6.41	25.6	1196.5	136.28	134.52	143.30	0.0917
315	16	363	59.0	422	26	7	4.21	3.28	9.83	26.7	1461.4	171.90	166.00	188.44	0.0917
400	7	460	31.8	492	45	7	3.61	2.41	7.22	28.9	1519.4	172.10	169.87	180.69	0.0722
400	13	460	59.7	520	54	7	3.29	3.29	9.88	29.7	1738.3	201.46	195.49	218.17	0.0723
450	7	518	35.8	554	45	7	3.83	2.55	7.66	30.6	1709.3	193.61	191.10	203.28	0.0642
450	13	518	67.1	585	54	7	3.49	3.49	10.5	31.5	1955.6	226.64	219.93	245.44	0.0643
500	7	575	39.8	615	45	7	4.04	2.69	8.07	32.3	1899.3	215.12	212.33	225.86	0.0578
500	13	575	74.6	650	54	7	3.68	3.68	11.1	33.2	2172.9	251.82	244.36	269.73	0.0578
560	7	645	44.6	689	45	7	4.27	2.85	8.54	34.2	2172.2	240.93	237.82	252.97	0.0516
560	13	645	81.6	726	54	19	3.90	2.34	11.7	35.1	2420.9	283.21	277.49	305.25	0.0516
630	4	725	31.3	756	72	7	3.58	2.39	7.16	35.8	2248.0	249.62	247.43	258.08	0.0459
630	13	725	91.8	817	54	19	4.13	2.48	12.4	37.5	2723.5	318.61	312.18	343.4	0.0459
710	4	817	35.3	852	72	7	3.80	2.53	7.60	38.0	2533.4	281.32	278.85	290.85	0.0407
710	13	817	104	921	54	19	4.39	2.63	13.2	39.5	3069.4	359.06	351.82	387.01	0.0407
800	4	921	39.8	961	72	7	4.04	2.69	8.07	40.4	2854.6	316.98	314.19	327.72	0.0361
800	8	921	76.7	997	84	7	3.74	3.74	11.2	41.1	3145.1	356.03	348.35	374.44	0.0362
900	4	1036	44.8	1081	72	7	4.28	2.85	8.6	42.8	3211.4	356.60	353.47	368.69	0.0321
900	8	1036	86.3	1122	84	7	3.96	3.96	11.9	43.6	3538.3	400.53	391.90	421.25	0.0322
1000	8	1151	93.7	1245	84	19	4.18	2.51	12.5	45.9	3916.8	446.37	439.81	471.67	0.0289
1120	8	1289	105	1394	84	19	4.42	2.65	13.3	48.6	4386.8	499.93	492.59	528.27	0.0258

H 、 Aluminum Alloy Steel Conductor -JLHA1/G1A 、 JLHA1/G1B 、 JLHA1/G3A(GB/T 1179—1999)

Spec.	Steel %	Nominal Cross Section			Single Core Count		Single Core Diameter		Diameter		Approx. Cable	Calculated Tensile Breaking Force			DC Resistance at 20°C Shall Not Exceed Ω / km
		AA	Steel	Total	A	Steel	AA	Steel	Steel Core	Stranded	Weight kg / km	JLHA ₂ /G ₁ A	JLHA ₂ /G ₁ B	JLHA ₂ /G ₃ A	
		mm ²			A	Steel	mm		mm			kN			
16	17	18.6	3.10	21.7	6	1	1.99	1.99	1.99	5.96	75.1	9.67	9.45	10.53	1.7934
25	17	29.0	4.84	33.9	6	1	2.48	2.48	2.48	7.45	117.3	14.96	14.62	16.27	1.1478
40	17	46.5	7.75	54.2	6	1	3.14	3.14	3.14	9.42	187.7	23.63	22.85	25.79	0.7174
63	17	73.2	12.2	85.4	6	1	3.94	3.94	3.94	11.8	295.6	36.48	35.26	39.41	0.4555
100	6	116	6.46	123	18	1	2.87	2.87	2.87	14.3	369.9	45.12	44.67	46.86	0.2880
125	6	145	8.07	153	18	1	3.21	3.21	3.21	16.0	462.3	56.08	55.27	58.34	0.2304
125	16	145	23.7	169	26	7	2.67	2.67	6.22	16.9	585.4	74.88	73.22	81.50	0.2310
160	6	186	10.3	196	18	1	3.63	3.63	3.63	18.1	591.8	69.92	68.89	72.40	0.1800
160	16	186	30.3	216	26	7	3.02	2.35	7.04	19.1	749.4	94.94	92.82	103.11	0.1805
200	6	232	12.9	245	18	1	4.05	4.05	4.05	20.3	739.8	87.40	86.11	90.50	0.1444
200	16	232	37.8	270	26	7	3.37	2.62	7.87	21.4	936.7	118.67	116.02	128.89	0.1444
250	10	290	28.5	319	22	7	4.10	2.28	6.83	23.2	1023.2	124.02	122.02	131.72	0.1154
250	16	290	47.3	338	26	7	3.77	2.93	8.80	23.9	1170.9	145.43	142.12	158.21	0.1155
315	7	366	25.3	391	45	7	3.22	2.15	6.44	25.7	1207.9	148.56	146.78	155.64	0.0917
315	16	366	59.6	426	26	7	4.23	3.29	9.88	26.8	1475.3	180.86	174.90	197.55	0.0917
400	7	465	32.1	497	45	7	3.63	2.42	7.25	29.0	1533.9	183.03	180.78	191.71	0.0722
400	13	465	60.2	525	54	7	3.31	3.31	9.93	29.8	1754.9	217.32	211.29	234.19	0.0723
450	7	523	36.1	559	45	7	3.85	2.56	7.69	30.8	1725.6	205.91	203.38	215.67	0.0642
450	13	523	67.8	591	54	7	3.51	3.51	10.5	31.6	1974.2	239.26	232.48	255.52	0.0643
500	7	581	40.2	621	45	7	4.05	2.70	8.11	32.4	1917.3	228.79	225.98	239.63	0.0578
500	13	581	75.3	656	54	7	3.70	3.70	11.1	33.3	2193.6	265.84	258.31	281.91	0.0578
560	7	651	45.0	696	45	7	4.29	2.86	8.58	34.3	2147.4	256.24	253.09	268.39	0.0516
560	13	651	82.4	733	54	19	3.92	2.35	11.8	35.3	2444.0	298.92	293.15	321.17	0.0516
630	4	732	31.6	764	45	7	3.60	2.40	7.20	36.0	2269.4	266.64	264.42	275.18	0.0459
630	13	732	92.7	825	54	19	4.15	2.49	12.5	37.4	2749.5	336.28	329.79	361.32	0.0459
710	4	825	35.6	861	72	7	3.82	2.55	7.64	38.2	2557.6	300.50	298.00	310.12	0.0407
710	13	825	104	929	54	19	4.41	2.65	13.2	39.7	3098.6	378.98	371.67	407.20	0.0407
800	4	930	40.2	970	72	7	4.05	2.70	8.11	40.5	2881.8	338.59	335.78	349.43	0.0361
800	8	930	77.5	1007	84	7	3.75	3.75	11.3	41.3	3175.1	378.01	370.26	396.60	0.0362
900	4	1046	45.2	1091	72	7	4.30	2.87	8.60	43.0	3242.0	380.91	377.75	393.11	0.0321
900	8	1046	87.1	1133	84	7	3.98	3.98	11.9	43.8	3572.0	425.26	416.54	446.17	0.0322
1000	8	1162	94.6	1257	84	19	4.20	2.52	12.60	46.2	3954.1	473.86	467.24	449.40	0.0289
1120	8	1301	106	1407	84	19	4.44	2.66	13.3	48.9	4428.6	530.72	523.30	559.33	0.0258

I、 Aluminum Stranded Wire Aluminum Alloy Conductor -JL/LHA2(GB/T 1179—1999)

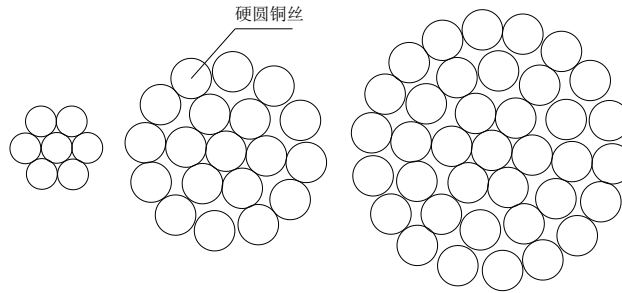
Spec.	Diameter		SingleCoreCount		Nominal Cross Section			Approx. Cable Weight kg / km	Calculated Tensile Breaking Force	DC Resistance at 20°C Shall Not Exceed Ω / km
	mm		A	AA	A	AA	Total			
	Single Core	Conductor								
16	1.76	5.28	4	3	9.73	7.30	17.0	46.6	3.85	1.7896
25	2.20	6.60	4	3	15.2	11.4	26.6	72.8	5.93	1.1453
40	2.78	8.35	4	3	24.3	18.3	42.6	116.5	9.25	0.7158
63	3.49	10.5	4	3	38.3	28.7	67.1	183.5	14.38	0.4545
100	4.40	13.2	4	3	60.8	45.6	106	291.2	22.52	0.2863
125	2.97	14.9	12	7	83.3	48.6	132	362.7	27.79	0.2302
160	3.36	16.8	12	7	107	62.2	169	464.2	35.04	0.1798
200	3.76	18.8	12	7	133	77.8	211	580.3	43.13	0.1439
250	4.21	21.0	12	7	167	97.2	264	725.3	53.92	0.1151
250	3.04	21.3	18	19	131	138	269	742.2	60.39	0.1154
315	3.34	23.4	30	7	263	61.3	324	892.6	60.52	0.0916
315	3.42	23.9	18	19	165	174	339	935.1	76.09	0.0916
400	3.76	26.3	30	7	334	77.8	411	1133.5	75.19	0.0721
400	3.85	27.0	18	19	210	221	431	1187.5	95.58	0.0721
450	3.99	27.9	30	7	375	87.6	463	1275.2	84.59	0.0641
450	4.08	28.6	18	19	236	249	485	1335.9	107.52	0.0641
500	4.21	29.4	30	7	417	97.3	514	1416.9	93.98	0.0577
500	4.31	30.1	18	19	262	277	539	1484.3	119.47	0.0577
560	4.45	31.2	30	7	467	109	576	1586.9	105.26	0.0515
560	3.45	31.0	54	7	504	65.4	570	1571.9	101.54	0.0516
630	3.71	33.4	42	19	454	205	660	1820.0	130.25	0.0458
630	3.79	34.1	24	37	271	417	688	1897.5	160.19	0.0458
710	3.94	35.5	42	19	512	232	743	2051.2	146.78	0.0407
710	4.02	36.2	24	37	305	470	775	2138.4	180.53	0.0407
800	4.18	37.6	42	19	577	261	838	2311_2	165.39	0.0361
800	4.27	38.4	24	37	344	530	873	2409.5	203.41	0.0361
900	4.43	39.9	42	19	649	294	942	2600.1	186.06	0.0321
900	3.66	40.2	54	37	567	388	955	2638.4	199.54	0.0321
1000	3.80	41.8	72	19	816	215	1032	2849.1	190.94	0.0289
1000	3.85	42.4	54	37	630	432	1061	2931.6	221.71	0.0289
1120	4.02	44.2	72	19	914	241	1155	3191.0	213.85	0.0258
1120	4.08	44.9	54	37	705	483	1189	3283.4	248.32	0.0258
1250	4.25	46.7	72	19	1020	269	1289	3561.4	238.68	0.0231
1250	4.31	47.4	54	37	787	539	1327	3664.5	277.14	0.0231
1400	4.50	49.4	72	19	1143	302	1444	3988.8	267.32	0.0207

J、 Aluminum Stranded Wire Aluminum Alloy Conductor JL/LHA, (GB/T 1179—1999)

Spec.	Diameter (mm)		SingleCoreCount		Nominal Cross Section			Approx. Cable Weight kg / km	Calculated Tensile Breaking Force kN	DC Resistance at 20°C Shall Not Exceed Ω / km
	Single Core	Conductor	A	AA	A	AA	Total			
			n		mm²					
16	1.76	5.29	4	3	9.78	7.33	17.1	46.8	4.07	1.7896
25	2.21	6.62	4	3	15.3	11.5	26.7	73.1	6.29	1.1453
40	2.179	8.37	4	3	24.3	18.3	42.8	117.0	9.82	0.7158
63	3.50	10.5	4	3	38.5	28.9	67.4	184.3	14.80	0.4545
100	4.41	13.2	4	3	61.1	45.8	107	292.5	23.49	0.2863
125	2.98	14.9	12	7	83.7	48.8	132	364.1	29.29	0.2302
160	3.37	16.9	12	7	107	62.5	170	466.0	36.95	0.1798
200	3.77	18.8	12	7	134	78.1	212	582.5	44.78	0.1439
250	4.21	21.1	12	7	167	97.6	265	728.1	55.98	0.1151
250	3.05	21.4	18	19	132	139	271	746.0	64.67	0.1154
315	3.34	23.4	30	7	263	61.4	325	894.4	62.40	0.0916
315	3.43	24.0	18	19	166	175	341	940.0	81.48	0.0916
400	3.77	26.4	30	7	334	78.0	412	1135.8	76.82	0.0721
400	3.86	27.0	18	19	211	222	433	1193.7	100.30	0.0721
450	3.99	28.0	30	7	376	87.7	464	1277.8	86.42	0.0641
450	4.10	28.7	18	19	237	250	487	1342.9	112.84	0.0641
500	4.21	29.5	30	7	418	97.5	515	1419.8	96.03	0.0577
500	4.32	30.2	18	19	263	278	542	1492.1	125.38	0.0577
560	4.46	31.2	30	7	468	109	577	1590.1	107.55	0.0515
560	3.45	31.1	54	7	505	65.5	570	1573.9	103.53	0.0516
630	3.72	33.4	42	19	456	206	662	1826.0	134.59	0.0458
630	3.80	34.2	24	37	272	420	692	1909.0	169.14	0.0458
710	3.95	35.5	42	19	514	232	746	2057.8	151.68	0.0407
710	4.03	36.3	24	37	307	473	780	2151.4	190.61	0.0407
800	4.19	37.7	42	19	579	262	840	2318.7	170.90	0.0361
800	4.28	38.5	24	37	346	533	879	2424.2	214.78	0.0361
900	4.44	40.0	42	19	651	294	945	2608.5	192.27	0.0321
900	3.66	40.3	54	37	569	390	959	2649.5	207.79	0.0321
1000	3.80	41.8	72	19	818	216	1034	2855.4	195.47	0.0289
1000	3.86	42.5	54	37	632	433	1066	2943.9	230.88	0.0289
1120	4.02	44.3	72	19	916	242	1158	3198.1	218.92	0.0258
1120	4.09	45.0	54	37	708	485	1194	3297.2	258.58	0.0258
1250	4.25	46.8	72	19	1022	270	1292	3569.3	244.33	0.0231
1250	4.32	47.5	54	37	791	542	1332	3679.9	288.60	0.0231
1400	4.50	49.5	72	19	1145	302	1447	3997.6	273.65	0.0207

Hard Drawn Copper Stranded Wire

•Design & Construction



•Standards & Approvals

This product is manufactured according to company standards

•Application

This product is suitable for overhead installation

•Product Name, Model

Model	Product Name
TJ	Hard Drawn Copper Stranded Wire

•Production Scope

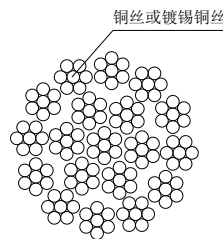
Model	Production Scope mm ²
TJ	16~400

● Technical Data

Nominal Cross Section mm ²	Structural Dimensions: Core Count/Diameter (mm)	Cable Diameter mm	DC Resistance at 20°C Ω/km	Tensile Breaking Force N	Elastic Modulus MPa	Coefficient of Thermal Expansion 10 ⁻⁶ /°C	Approx. Cable Weight kg/km
16	7/1.70	5.10	1.140	5746.7	114737	17.0	143
25	7/2.12	6.36	0.733	8727.9	114737	17.0	222
35	7/2.50	7.50	0.527	12130.8	114737	17.0	309
50	7/3.00	9.00	0.366	17465.6	114737	17.0	445
70	19/2.12	10.60	0.273	23683.1	114737	17.0	609
95	19/2.50	12.50	0.196	32930.7	114737	17.0	847
120	19/2.80	14.00	0.156	41305.6	114737	17.0	1062
150	19/3.15	15.75	0.123	50965.2	114737	17.0	1344
185	37/2.50	17.50	0.101	64125.7	114737	17.0	1650
240	37/2.85	19.95	0.078	83327.1	114737	17.0	2145
300	37/3.15	22.05	0.063	99253.1	114737	17.0	2620
400	61/2.85	25.65	0.047	137381.0	114737	17.0	3540

Annealed Copper Stranded Wire

•Design & Construction



•Standards & Approvals

This product is manufactured according to GB 12970-9

•Application

Suitable for wiring in electrical equipment and electronic devices, for overhead antennas used in communication, as well as for connecting electrical motors and instrument circuits.

•Product Name, Model

Model	Product Name
TJRI	Type 1 Soft Copper Stranded Wire
TJR 2	Type 2 Soft Copper Stranded Wire
TJR 3	Type 3 Soft Copper Stranded Wire
TJRX 1	Type 1 Tinned Soft Copper Stranded Wire
TJRX 2	Type 2 Tinned Soft Copper Stranded Wire
TJRX 3	Type 3 Tinned Soft Copper Stranded Wire
TTR	Soft Copper Antenna Wire
TS	Copper Brush Wire
TSR	Soft Copper Brush Wire
TSX	Tinned Copper Brush Wire

●Production Scope

Model	Production Scope mm ²
TJR1	0.10~1000
TJR2	2.5~63
TJR3	0.025~500
TJRX1	0.1~2.5
TJRX2	2.5~63
TJRX3	0.025~500
TTR	1.0~25
TS	0.25~16
TSR	0.25~16
TSX	0.063~6.03

● Technical Data

(TJRI, TJRX1)

Nominal Cross Section mm ²	Calculate Cross-Section mm ²	Structure		Calculate Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km		Approx. Cable Weight kg / km
		Single Core Count	Number of Strands × Number of Wires / Nominal Diameter of Single Wire mm		TJRI	TJRX1	
0.10	0.102	9	9 / 0.12	0.44	176	179	0.94
(0.12)	0.124	7	7 / 0.15	0.45	145	147	1.15
0.16	0.159	9	9 / 0.15	0.56	113	115	1.47
(0.20)	0.194	11	11 / 0.15	0.60	92.9	94.4	1.80
0.25	0.247	14	14 / 0.15	0.68	72.9	74.1	2.29
(0.30)	0.300	17	17 / 0.15	0.74	60.3	61.3	2.80
0.40	0.408	13	13 / 0.20	0.86	41.2	44.9	3.79
(0.50)	0.503	16	16 / 0.20	0.96	36.0	36.6	4.70
0.63	0.628	20	20 / 0.20	1.05	28.8	29.3	5.86
(0.75)	0.754	24	24 / 0.20	1.14	24.0	24.4	7.04
1.00	1.01	32	32 / 0.20	1.30	17.9	18.2	9.43
1.60	1.57	32	32 / 0.25	1.63	11.5	11.7	14.7
(2.00)	1.96	40	40 / 0.25	1.82	9.24	9.39	18.3
2.5	2.41	49	7×7 / 0.25	2.25	7.58	7.92	22.7
4.0	3.94	49	7×7 / 0.32	2.88	4.64	—	37.1
6.3	6.16	49	7×7 / 0.40	3.60	2.97	—	58.0
10	10.01	49	7×7 / 0.51	4.59	1.83	—	94.3
16	15.84	84	7×12 / 0.49	6.17	1.16	—	150
25	25.08	133	19×7 / 0.49	7.35	0.736	—	239
(35)	35.14	133	19×7 / 0.58	8.70	0.525	—	334
40	40.15	133	19×7 / 0.62	9.30	0.459	—	382
(50)	48.30	133	19×7 / 0.68	10.20	0.382	—	459
63	62.72	189	27×7 / 0.65	12.00	0.294	—	597
(70)	68.64	189	27×7 / 0.68	12.53	0.269	—	653
80	78.20	259	37×7 / 0.62	13.02	0.236	—	744
(95)	94.06	259	37×7 / 0.68	14.28	0.196	—	895
100	99.68	259	37×7 / 0.70	14.70	0.185	—	948
(120)	117.67	324	27×12 / 0.68	17.39	0.157	—	1110
125	124.69	324	27×12 / 0.70	17.90	0.148	—	1186
160	162.86	324	27×12 / 0.80	20.20	0.113	—	1549
(185)	183.85	324	27×12 / 0.85	21.74	0.100	—	1749
200	196.15	444	37×12 / 0.75	21.80	0.0940	—	1866
250	251.95	444	37×12 / 0.85	24.72	0.0732	—	2397
315	310.58	703	37×19 / 0.75	26.25	0.0594	—	2954
400	398.92	703	37×19 / 0.85	29.75	0.0462	—	3795
500	498.30	703	37×19 / 0.95	33.25	0.0370	—	4740
630	627.1	1159	61×19 / 0.83	37.35	0.0294	—	5965
800	804.3	1159	61×19 / 0.94	42.30	0.0229	—	7651
1000	1003.6	1159	61×19 / 1.05	47.25	0.0184	—	9547

(TJR2、TJR2X2)

Nominal Cross Section mm ²	Calculate Cross-Section mm ²	Structure		Calculate Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km		Approx. Cable Weight kg / km
		Single Core Count	Number of Strands × Number of Wires / Nominal		TJR2	TJRX2	
			Diameter of Single Wire mm				
2.5	2.47	140	7×20 / 0.15	2.36	7.40	7.73	23.3
4.0	3.96	126	7×18 / 0.20	3.00	4.62	4.82	37.3
6.3	6.16	196	7×28 / 0.20	3.72	2.97	3.10	58.0
10	9.90	315	7×45 / 0.20	4.62	1.86	1.93	93.3
16	15.83	504	12×42 / 0.20	6.18	1.16	1.23	150
25	25.07	798	19×42 / 0.20	7.45	0.736	0.781	238
(35)	35.41	1127	7×7×23 / 0.20	10.57	0.521	0.545	337
40	40.02	1274	7×7×26 / 0.20	10.62	0.461	0.482	381
(50)	49.26	1568	7×7×32 / 0.20	11.70	0.375	0.392	469
63	63.11	2009	7×7×41 / 0.20	13.32	0.292	0.305	600

(TJR3 TJRX3)

Nominal Cross Section mm ²	Calculate Cross-Section mm ²	Structure			DC Resistance at 20°C Shall Not Exceed Ω / km		Approx. Cable Weight kg / km
		Single Core Count	Number of Strands × Number of Wires / Nominal Diameter of Single Wire mm	Calculate Diameter mm			
0.025	0.0255	13	13/0.05	0.22	707	759	0.24
0.04	0.0385	10	10/0.07	0.27	466	500	0.36
0.063	0.0616	16	16/0.07	0.34	294	316	0.58
0.10	0.100	26	26/0.07	0.42	181	194	0.93
0.16	0.158	41	41/0.07	0.52	115	123	1.47
0.25	0.250	65	65/0.07	0.65	72.4	77.7	2.33
(0.30)	0.296	77	7×11/0.07	0.84	61.7	6,1.5	2.79
0.40	0.404	105	7×15/0.07	0.97	45.2	48.5	3.81
(0.50)	0.512	133	7×1.9/0.07	1.05	35.7	38.3	4.82
0.63	0.620	161	7×23/0.07	1.18	29.5	31.7	5.84
(0.75)	0.754	196	7×28/0.07	1.28	24.2	26.0	7.11
1.0	0.997	259	7×37/0.07	1.47	18.3	19.6	9.40
1.6	1.57	408	12×34/0.07	1.97	11.70	12.6	14.8
2.5	2.49	646	19×34/0.07	2.35	7.41	7.96	23.7
4	4.03	513	19×27/0.10	3.08	4.58	4.79	38.3
6.3	6.27	798	19×42/0.10	3.73	2.94	3.07	59.6
10	10.00	1273	19×67/0.10	4.73	1.85	1.93	95.1
16	15.83	2016	12x 7×24/0.10	7.18	1.16	1.21	150
25	25.07	3192	19x 7×24/0.10	8.55	0.736	0.769	238
(35)	34.47	4389	19×7×33/0.10	9.90	0.535	0.559	328
40	39.96	2261	19×7×17/0.15	11.03	0.462	0.483	380
(50)	49.36	2793	19×7×21/0.15	12.15	0.374	0.391	470
63	63.46	3591	19×7×27/0.15	13.50	0.291	0.304	604
(70)	70.51	3990	19×7×30/0.15	14.18	0.262	0.274	671
80	79.91	4522	19×7×34/0.15	15.08	0.231	0.241	760
(95)	94.01	5320	19×7×40/0.15	16.43	0.196	0.205	894
100	100.73	5700	19×12×25/0.15	18.27	0.183	0.191	958
(120)	120.87	6840	19×12×30/0.15	20.24	0.158	0.160	1150
125	127.59	7220	19×19×20/0.15	20.20	0.145	0.152	1214
160	159.49	9025	19×19×25/0.15	21.75	0.116	0.121	1517
(185)	185.00	10469	19×19×29/0.15	23.25	0.0997	0.104	1760
200	196.15	11100	37×12×25/0.15	25.58	0.0940	0.0982	1866
250	251.08	14208	37×12×32/0.15	28.67	0.0735	0.0768	2388
315	310.58	17575	37×19×25/0.15	30.45	0.0594	0.0621	2951
400	397.54	22496	37×19x 32/0.15	34.13	0.0464	0.0485	3782
500	496.92	28120	37×19×40/0.15	38.06	0.0371	0.0388	4727

(TTR)

Nominal Cross Section mm ²	Calculate Cross-Section mm ²	Structure Single Core Count	Number of Strands × Number of Wires / Nominal Diameter of Single Wire mm	Calculate Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km	Tensile Strength Not Less Than kN	Approx. Cable Weight kg / km
1.0	0.958		7×7 / 0.16	1.44	18.0	0.16	9.0
1.6	1.54		7×7 / 0.20	1.80	11.5	0.26	14.1
2.5	2.41		7×7 / 0.25	2.25	7.37	0.40	22.1
4.0	3.94		7×7 / 0.32	2.88	4.51	0.66	36.1
6.3	6.16		7×7 / 0.40	3.60	2.88	1.03	56.4
10	10.01		7×7 / 0.51	4.59	1.77	1.67	91.7
16	16.26		7×7 / 0.65	5.85	1.09	2.71	149
25	24.63		7×7 / 0.80	7.20	0.72	4.11	226

(TS、TSX)

Nominal		Structure		Calculate Diameter mm	DC Resistance at 20°C Shall Not Exceed Ω / km		Approx. Cable Weight kg/km
Cross Section mm²	Calculate Cross-Section mm²	Single Core Count	Number of Strands × Number of Wires / Nominal Diameter of Single Wire mm		TS	TSX	
0.25	0.2d2	63	7×9 / 0.07	1.0	75.5	81.1	2.28
0.315	0.323	8d	7×12 / 0.07	1.1	56.6	60.7	3.04
0.40	0.404	105	7×15 / 0.07	1.2	45.2	d8.6	3.81
0.50	0.512	133	7×19 / 0.07	1.3	35.7	38.3	4.82
0.63	0.620	161	7×23 / 0.07	1.5	29.5	31.6	5.84
0.80	0.808	210	7×30 / 0.07	1.6	22.6	24.3	7.61
1.00	0.990	126	7×30 / 0.07	1.8	18.5	19.3	9.33
1.25	1.264	161	7×18 / 0.10	2.0	14.5	15.1	11.9
1.6	1.594	203	7×23 / 0.10	2.2	11.5	12.0	15.0
2.0	1.979	252	7×29 / 0.10	2.4	9.23	9.65	18.6
2.5	2.474	315	7×36 / 0.10	2.7	7.39	7.72	23.3
3.15	3.134	399	7×45 / 0.10	3.0	5.83	6.09	29.5
4.0	3.958	504	7×57 / 0.10	3.3	4.62	4.83	37.3
5.0	4.948	630	7×72 / 0.10	3.8	3.69	3.86	46.6
6.3	6.243	552	7×72 / 0.10	4.3	2.94	3.07	59.1
8	7.872	696	7×90 / 0.10	d.8	2.33	2.44	74.5
10	10.04	888	12×46 / 0.12	5.3	1.83	1.91	95.1
12.5	12.46	1102	12×58 / 0.12	5.9	1.48	1.55	118.5
16	15.90	1406	12×74 / 0.12	6.7	1.16	1.21	151.2
			19×58 / 0.12				
			19×74 / 0.12				

(TSR)

Nominal		Structure			Calculate Diameter	DC Resistance at 20°C Shall Not Exceed Ω / km	Approx. Cable Weight kg/km
Cross Section	Calculate Cross-Section mm ²	Single Core Count	Number of Strands × Number of Wires / Nominal Diameter of				
mm ²			Single Wire				
			mm				
0.063	0.0628	32	32 / 0.06	0.5	288	0.586	
0.06	0.0785	40	40 / 0.05	0.55	231	0.733	
0.10	0.0982	50	50 / 0.05	0.6	184	0.917	
0.125	0.124	63	63 / 0.05	0.65	146	1.16	
0.16	0.165	84	7×12 / 0.05	0.7	111	1.55	
0.20	0.206	105	7×15 / 0.05	0.8	88.7	1.92	
0.25	0.247	126	7×16 / 0.05	1.0	74.0	2.33	
0.315	0.316	160	7×23 / 0.06	1.1	57.8	2,95	
0.40	0.399	203	7×29 / 0.05	1.2	45.8	3.76	
0.50	0.495	252	12×21 / 0.05	1.3	37.0	4.69	
0.63	0.636	324	12×27 / 0.05	1.5	28.9	6.02	
0.80	0.801	d08	12×34 / 0.05	1.6	22.9	7.58	
1.00	0.990	504	12×42 / 0.05	1.8	18.6	9.37	
1.25	1.268	646	19×3d / 0.05	2.0	14.5	12.1	
1.6	1.567	796	19×42 / 0.05	2.2	11.8	1d.9	
2.0	2.015	1025	19×54 / 0.05	2.4	9.16	19.2	
2.5	2.500	1273	19×67 / 0.05	2.7	7.38	23.8	
3.15	3.144	817	19×43 / 0.07	3.0	5.87	29.9	
4.0	4.022	1045	19×55 / 0.07	3.3	4.59	38.3	
5.0	4.972	1292	19×6S / 0.07	3.8	3.71	47.3	
6.3	6.288	1634	19×86 / 0.07	4.3	2.93	59.8	