TACSR

THERMAL RESISTANT ALUMINIUM CONDUCTOR STEEL REINFORCED - TACSR

ConstructionTAL Grade Aluminium-Zirconium wires AT1, concentrically stranded about a steel core. Core wire for TACSR is available with class A galvanizing; aluminized Aluminium coated (AZ); or Aluminium-clad (AW). Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.

Values based on following Specifications:

- Thermal-resistant aluminium alloy wire for overhead line conductor IEC 62004
- Round wire concentric lay overhead electrical stranded conductors IEC 61089
- Zinc-coated steel wires for stranded conductors IEC 888

Applications:

New Generation Conductors capable to work at High Temperature without any loss of Strength to carter High Ampacity requirement. Used as bare overhead transmission conductor and as primary and secondary distribution conductor. TACSR offers optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing ampacity.

Conductor Size (mm2)	Stranding (No/mm)		Min. Breaking Load	Reference								
				Cross-Sectional Area (mm2)			Overall Diameter (mm)		Weight (kg/km)			DC Resistance
	TAL	ST	(kgf)	TAL	ST	Total	ST	TAL	TAL	ST	Total	(Ω/KM)
58	6/3.5	1/3.5	1980	57.73	9.621	67.35	3.50	10.50	158.1	75.0	233.14	0.5050
80	6/4.2	1/4.2	2770	83.1	13.85	96.95	4.20	12.60	227.5	108.0	335.50	0.3500
95	6/4.5	1/4.5	3810	96.4	15.9	111.30	4.50	13.50	261.2	124.0	385.20	0.3060
80	15/2.6	4/2.6	4720	79.64	21.24	100.90	7.80	13.00	219.2	166.5	385.70	0.3680
100	15/2.9	4/2.9	5580	99.08	26.42	125.50	8.70	14.50	272.8	207.1	479.90	0.2960
120	15/3.2	4/3.2	5550	120.6	32.17	152.80	9.60	16.00	332.2	252.2	584.40	0.2430
120	30/2.3	7/2.3	5540	124.7	29.09	153.80	6.90	16.10	345.7	228.0	573.70	0.2370
160	30/2.6	7/2.6	6980	159.3	37.16	196.50	7.80	18.20	441.5	291.3	732.80	0.1850
200	30/2.9	7/2.9	8640	198.2	46.24	244.40	8.70	20.30	549.3	362.4	911.70	0.1490
240	30/3.2	7/3.2	10210	241.3	56.29	297.60	9.60	22.40	668.9	441.3	1110.00	0.1220
330	26/4.0	7/3.1	10950	326.8	52.84	379.60	9.30	25.30	905.4	414.2	1320.00	0.0904
410	26/4.5	7/3.5	13910	413.4	67.35	480.80	10.50	28.50	1145.0	527.9	1673.00	0.0714
480	45/3.7	7/2.47	11260	483.8	33.54	517.34	7.41	29.60	1336.1	262.9	1599.00	0.0610
520	54/3.5	7/3.5	15600	519.5	67.35	586.90	10.50	31.50	1441.0	527.9	1969.00	0.0569
610	54/3.8	7/3.8	18350	612.4	79.38	691.80	11.40	34.20	1698.0	622.2	2320.20	0.0481
680	54/4.0	7/4.0	19810	678.8	87.99	766.80	12.00	36.00	1882.0	689.8	2572.00	0.0436
680	45/4.4	7/2.9	15580	684.5	46.24	730.70	8.70	35.10	1898.0	362.4	2260.40	0.0431
810	45/4.8	7/3.2	18480	814.5	56.29	870.80	9.60	38.40	2259.0	441.3	2700.30	0.0353
1160	84/4.2	7/4.2	27830	1163	96.95	1260.00	12.60	46.20	3236.0	759.8	3996.00	0.0254
1520	84/4.8	7/4.8	36390	1520	126.7	1647.00	14.40	52.80	4228.0	993.3	5222.00	0.0195

TACSR/EST

THERMAL RESISTANT ALUMINIUM CONDUCTOR EXTRA HIGH STRENGTH STEEL REINFORCED - TACSR/EST

Construction

TAL Grade Aluminium-Zirconium wires AT1, concentrically stranded about a steel core. Core wire for TACSR is available with class A galvanizing; aluminized Aluminium coated (AZ); or Aluminium-clad (AW). However we have one more option i.e. High Strength Steel to achieve high Strength to Weight Ratio. Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.

Values based on following Specifications:•

- Thermal-resistant aluminium alloy wire for overhead line conductors IEC 62004
- Round wire concentric lay overhead electrical stranded conductors IEC 61089
- Zinc-coated steel wires for stranded conductors IEC 888

Applications

New Generation Conductors capable to work at High Temperature without any loss of Strength to carter High Ampacity requirement. Used as bare overhead transmission cable and as primary and secondary distribution cable. TACSR/EST offers Best Optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing ampacity.

Conductor Size (mm2)	Stranding (No/mm)		Min. Breaking Load	Reference								
				Cross-Sectional Area (mm2)			Overall Diameter (mm)		Weight (kg/km)			DC Resistance (Ω/KM)
	TAL	ST	(kgf)	TAL	ST	Total	ST	TAL	TAL	ST	Total	
58	6/3.5	1/3.5	1980	57.73	9.621	67.35	3.50	10.50	158.1	75.0	233.14	0.5050
80	6/4.2	1/4.2	2770	83.1	13.85	96.95	4.20	12.60	227.5	108.0	335.50	0.3500
95	6/4.5	1/4.5	3810	96.4	15.9	111.30	4.50	13.50	261.2	124.0	385.20	0.3060
80	15/2.6	4/2.6	4720	79.64	21.24	100.90	7.80	13.00	219.2	166.5	385.70	0.3680
100	15/2.9	4/2.9	5580	99.08	26.42	125.50	8.70	14.50	272.8	207.1	479.90	0.2960
120	15/3.2	4/3.2	5550	120.6	32.17	152.80	9.60	16.00	332.2	252.2	584.40	0.2430
120	30/2.3	7/2.3	5540	124.7	29.09	153.80	6.90	16.10	345.7	228.0	573.70	0.2370
160	30/2.6	7/2.6	6980	159.3	37.16	196.50	7.80	18.20	441.5	291.3	732.80	0.1850
200	30/2.9	7/2.9	8640	198.2	46.24	244.40	8.70	20.30	549.3	362.4	911.70	0.1490
240	30/3.2	7/3.2	10210	241.3	56.29	297.60	9.60	22.40	668.9	441.3	1110.00	0.1220
330	26/4.0	7/3.1	10950	326.8	52.84	379.60	9.30	25.30	905.4	414.2	1320.00	0.0904
410	26/4.5	7/3.5	13910	413.4	67.35	480.80	10.50	28.50	1145.0	527.9	1673.00	0.0714
480	45/3.7	7/2.47	11260	483.8	33.54	517.34	7.41	29.60	1336.1	262.9	1599.00	0.0610
520	54/3.5	7/3.5	15600	519.5	67.35	586.90	10.50	31.50	1441.0	527.9	1969.00	0.0569
610	54/3.8	7/3.8	18350	612.4	79.38	691.80	11.40	34.20	1698.0	622.2	2320.20	0.0481
680	54/4.0	7/4.0	19810	678.8	87.99	766.80	12.00	36.00	1882.0	689.8	2572.00	0.0436
680	45/4.4	7/2.9	15580	684.5	46.24	730.70	8.70	35.10	1898.0	362.4	2260.40	0.0431
810	45/4.8	7/3.2	18480	814.5	56.29	870.80	9.60	38.40	2259.0	441.3	2700.30	0.0353
1160	84/4.2	7/4.2	27830	1163	96.95	1260.00	12.60	46.20	3236.0	759.8	3996.00	0.0254
1520	84/4.8	7/4.8	36390	1520	126.7	1647.00	14.40	52.80	4228.0	993.3	5222.00	0.0195

TACSR/AW

THERMAL RESISTANT ALUMINIUM CONDUCTOR AL.CLAD STEEL REINFORCED - TACSR/AW

Construction

TAL Grade Aluminium-Zirconium wires AT1, concentrically stranded about a steel core. Core wire for TACSR is available with class A galvanizing; aluminized aluminium coated (AZ); or Aluminium-clad (AW). Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.

Values based on following Specifications:

- Thermal-resistant aluminium alloy wire for overhead line conductor IEC 62004
- Round wire concentric lay overhead electrical stranded conductors IEC 61089
- Aluminium-clad steel wires for electrical purposes IEC 1232

Applications

New Generation Conductors capable to work at High Temperature without any loss of Strength to carter High Ampacity requirement.

Used as bare overhead transmission cable and as primary and secondary distribution cable. TACSR/AW offers optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing ampacity.

Conductor Size (mm2)	Stranding (No/mm)		Min. Breaking Load	Reference					
				Cross-Sectional Area (mm2)		Overall Diameter (mm)		Weight (kg/km)	DC Resistance (Ω/KM)
	TAL	ST	(kgf)	TAL	AW	AW	TAL		
120	30/2.3	7/2.3	5540	124.7	29.08	6.90	16.10	536.50	0.2190
160	30/2.6	7/2.6	6980	159.3	37.16	7.80	18.20	685.40	0.1710
200	30/2.9	7/2.9	8640	198.2	46.24	8.70	20.30	852.80	0.1380
210	30/3.2	7/3.2	10160	241.3	56.29	9.60	22.40	1038.00	0.1130
330	26/4.0	7/3.1	11200	326.8	52.84	9.30	25.30	1252.00	0.0856
410	26/4.5	7/3.5	14230	413.4	67.35	10.50	28.50	1587.00	0.0676
480	45/3.7	7/2.47	11260	483.84	33.54	7.40	29.60	1561.00	0.0595
520	54/3.5	7/3.5	15920	519.5	67.35	10.50	31.50	1863.00	0.0544
610	54/3.8	7/3.8	18730	612.4	79.38	11.40	34.20	2219.00	0.0461
680	45/4.4	7/2.9	15580	684.5	46.24	8.70	35.10	2201.00	0.0422
810	45/4.8	7/3.2	18730	814.5	56.29	9.60	38.40	2628.00	0.0354
960	84/3.8	7/3.8	23780	952.6	79.38	11.40	41.80	3170.00	0.0302
1160	84/4.2	7/4.2	28720	1163	96.95	12.60	46.20	3872.00	0.0247
1520	84/4.8	7/4.8	37520	1520	126.7	14.40	52.80	5060.00	0.0189