Application

These cables are suitable for high load conditions, unbalanced systems, industrial and commercial facilities, substations, utility networks, critical infrastructure, and both temporary and permanent installations.

Performance

Operating Voltage: 25kV
Temperature Rating:
Normal Operation: Up to 90°C
Emergency Overload: Up to 130°C
Short Circuit Conditions: Up to 250°C
Ambient Temperature Range: Suitable for environments ranging from -40°C to +90°C
Mechanical Performance:
Maximum Sidewall Pressure: 1000 lbs./FT
Bending Radius: 12 times the cable diameter for fixed installations, 15 times for occasional flexing

Construction

Conductor: Moisture-blocked class B compressed aluminum ASTM B231 1350 ¾ hard H16/H26 (Non Moisture Blocked Optional)
Conductor Shield: Conventional semi-conducting cross-linked copolymer
Optional: Supersmooth conductor shield
Conductor tape is used for cable size larger than or equal to 1500 kcmil
Insulation: 260 Mils Tree Retardant Cross-Linked Polyethylene with 100% insulation level
Insulation Shield: Strippable semi-conducting cross-linked copolymer
Concentric Neutral: Helically applied soft drawn bare copper full concentric neutral
Overall Jacket: Linear Low-Density Polyethylene (LLDPE) Jacket, black with red extruded stripes

Specification

-ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
-ASTM B609 Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes
-ICEA S-94-649 Standard for Concentric Neutral Cables Rated 5 - 46kV
-AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV (Qualification Test Requirements)
-Rural Utility Standard RUS 1728F-U1 or 1728.204 (Electric standards and specifications for materials and construction)
-UL 1072 Listed as MV 90 When Specified
-Optional CSA 68.5: -40ºC and MV 90ºC optional marking available upon request

Eastful Cable Lab

We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.
CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rhineland and CCS.

National Green Factory

Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.
We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

Technical Parameters

Weights and Measurements											
Conductor Size	Conductor Overall Dia.	Insulation Overall Dia.	Insul. Thickness	Insulation Shield Overall Dia.	Concentric Neutral	Max. D.C. Resistance 25°C	Jacket Thickness	Approx. Overall Dia.	Approx. Weight	Min. Bending Radius	Max. Pull Tension
AWG/kcmil	inch	inch	mils	inch	No. x AWG	Ω/1000ft	mils	inch	lb/1000ft	inch	lb
1 (Solid)	0.289	0.839	260	0.929	13x14	0.202	50	1.157	642	9.3	502
1 (Solid)	0.289	0.839	260	0.929	13x14	0.202	50	1.157	642	9.3	502
1 (Solid)	0.289	0.839	260	0.929	13x14	0.202	50	1.157	642	9.3	502
1 (19)	0.322	0.872	260	0.962	13x14	0.202	50	1.19	668	9.5	502
1/0 (Solid)	0.324	0.875	260	0.965	16x14	0.164	50	1.193	718	9.5	633
1/0 (19)	0.351	0.902	260	0.992	16x14	0.164	50	1.22	742	9.8	633
1/0 (19)	0.351	0.902	260	0.992	16x14	0.164	50	1.22	742	9.8	633
1/0 (19)	0.351	0.902	260	0.992	16x14	0.164	50	1.22	742	9.8	633
2/0 (19)	0.395	0.945	260	1.035	13x12	0.127	50	1.296	877	10.4	798
3/0 (19)	0.443	1.001	260	1.111	25x14	0.105	50	1.339	1040	10.7	1006
4/0 (19)	0.498	1.048	260	1.158	20x12	0.083	50	1.419	1170	11.4	1269
250 (37)	0.558	1.124	260	1.234	25x12	0.066	50	1.496	1382	12	1500
350 (37)	0.661	1.227	260	1.337	32x12	0.051	50	1.599	1688	12.8	2100

Electrical and Engineering Data											
Conductor Size	D.C. Resistance @ 25°C	A.C. Resistance @ 90°C	Capacities Reactance @ 60Hz	Inductive Reactance @ 60Hz	Charging Current	Dielectric Loss	Zero Sequence Impedance	Positive Sequence Impedance	Short Circuit Current @ 30 Cycle	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
AWG/kcmil	Ω/1000ft	Ω/1000ft	MΩ/1000ft	Ω/1000ft	A/1000ft	W/1000ft	Ω/1000ft	Ω/1000ft	A	A	A
1 (Solid)	0.129	0.162	0.073	0.054	0.114	1.65	0.216+j0.759	0.162+j0.052	4533	140	170
1 (Solid)	0.129	0.162	0.073	0.054	0.114	1.65	0.216+j0.759	0.162+j0.052	4533	140	170
1 (Solid)	0.129	0.162	0.073	0.054	0.114	1.65	0.216+j0.759	0.162+j0.052	4533	140	170
1 (19)	0.211	0.266	0.068	0.052	0.121	1.75	0.320+j0.758	0.266+j0.052	4533	140	170
1/0 (Solid)	0.102	0.128	0.067	0.052	0.122	1.76	0.182+j0.755	0.128+j0.050	5579	155	195
1/0 (19)	0.167	0.211	0.064	0.05	0.129	1.86	0.265+j0.754	0.211+j0.050	5579	155	195
1/0 (19)	0.167	0.211	0.064	0.05	0.129	1.86	0.265+j0.754	0.211+j0.050	5579	155	195
1/0 (19)	0.167	0.211	0.064	0.05	0.129	1.86	0.265+j0.754	0.211+j0.050	5579	155	195
2/0 (19)	0.133	0.167	0.059	0.049	0.139	2.01	0.221+j0.749	0.167+j0.049	7203	180	220
3/0 (19)	0.105	0.132	0.055	0.047	0.15	2.17	0.186+j0.745	0.132+j0.047	8718	205	250
4/0 (19)	0.084	0.105	0.051	0.046	0.163	2.35	0.159+j0.739	0.105+j0.046	11081	235	285
250 (37)	0.071	0.09	0.047	0.044	0.175	2.53	0.144+j0.735	0.090+j0.045	13852	254	307
350 (37)	0.05	0.065	0.042	0.042	0.198	2.86	0.119+j0.728	0.065+j0.042	17730	305	365

Technical Parameters

Weights and Measurements (Metric)											
Conductor Size	Conductor Overall Dia.	Insulation Overall Dia.	Insul. Thickness	Insulation Shield Overall Dia.	Concentric Neutral	Max. D.C. Resistance 25°C	Jacket Thickness	Approx. Overall Dia.	Approx. Weight	Min. Bending Radius	Max. Pull Tension
AWG/kcmil	mm	mm	mm	mm	No. x AWG	Ω/km	mm	mm	kg/km	mm	N
1 (Solid)	7.34	21.31	6.6	23.6	13x14	0.66	1.27	29.39	955	236.22	2234
1 (Solid)	7.34	21.31	6.6	23.6	13x14	0.66	1.27	29.39	955	236.22	2234
1 (Solid)	7.34	21.31	6.6	23.6	13x14	0.66	1.27	29.39	955	236.22	2234
1 (19)	8.18	22.15	6.6	24.43	13x14	0.66	1.27	30.23	994	241.3	2234
1/0 (Solid)	8.23	22.22	6.6	24.51	16x14	0.54	1.27	30.3	1069	241.3	2817
1/0 (19)	8.92	22.91	6.6	25.2	16x14	0.54	1.27	30.99	1104	248.92	2817
1/0 (19)	8.92	22.91	6.6	25.2	16x14	0.54	1.27	30.99	1104	248.92	2817
1/0 (19)	8.92	22.91	6.6	25.2	16x14	0.54	1.27	30.99	1104	248.92	2817
2/0 (19)	10.03	24	6.6	26.29	13x12	0.42	1.27	32.92	1305	264.16	3551
3/0 (19)	11.25	25.43	6.6	28.22	25x14	0.34	1.27	34.01	1548	271.78	4477
4/0 (19)	12.65	26.62	6.6	29.41	20x12	0.27	1.27	36.04	1741	289.56	5647
250 (37)	14.17	28.55	6.6	31.34	25x12	0.22	1.27	38	2057	304.8	6675
350 (37)	16.79	31.17	6.6	33.96	32x12	0.17	1.27	40.61	2512	325.12	9345

Electrical and Engineering Data (Metric)											
Conductor Size	D.C. Resistance @ 25°C	A.C. Resistance @ 90°C	Capacities Reactance @ 60Hz	Inductive Reactance @ 60Hz	Charging Current	Dielectric Loss	Zero Sequence Impedance	Positive Sequence Impedance	Short Circuit Current @ 30 Cycle	Allowable Ampacity in Duct 90°C	Allowable Ampacity Directly Buried 90°C
AWG/kcmil	Ω/km	Ω/km	MΩ/km	Ω/km	A/km	W/km	Ω/1000ft	Ω/1000ft	A	A	A
1 (Solid)	0.4232	0.53	0.0223	0.1772	0.374	5.4134	0.216+j0.759	0.162+j0.052	4533	140	170
1 (Solid)	0.4232	0.53	0.0223	0.1772	0.374	5.4134	0.216+j0.759	0.162+j0.052	4533	140	170
1 (Solid)	0.4232	0.53	0.0223	0.1772	0.374	5.4134	0.216+j0.759	0.162+j0.052	4533	140	170
1 (19)	0.6923	0.87	0.0207	0.1706	0.397	5.7415	0.320+j0.758	0.266+j0.052	4533	140	170
1/0 (Solid)	0.3346	0.42	0.0204	0.1706	0.4	5.7743	0.182+j0.755	0.128+j0.050	5579	155	195
1/0 (19)	0.5479	0.69	0.0195	0.164	0.423	6.1024	0.265+j0.754	0.211+j0.050	5579	155	195
1/0 (19)	0.5479	0.69	0.0195	0.164	0.423	6.1024	0.265+j0.754	0.211+j0.050	5579	155	195
1/0 (19)	0.5479	0.69	0.0195	0.164	0.423	6.1024	0.265+j0.754	0.211+j0.050	5579	155	195
2/0 (19)	0.4364	0.55	0.018	0.1608	0.456	6.5945	0.221+j0.749	0.167+j0.049	7203	180	220
3/0 (19)	0.3445	0.43	0.0168	0.1542	0.492	7.1194	0.186+j0.745	0.132+j0.047	8718	205	250
4/0 (19)	0.2756	0.34	0.0155	0.1509	0.535	7.71	0.159+j0.739	0.105+j0.046	11081	235	285
250 (37)	0.2329	0.3	0.0143	0.1444	0.574	8.3005	0.144+j0.735	0.090+j0.045	13852	254	307
350 (37)	0.164	0.21	0.0128	0.1378	0.65	9.3832	0.119+j0.728	0.065+j0.042	17730	305	365