Application

They are suitable for high-reliability distribution systems, industrial and commercial installations, critical infrastructure, longer cable runs, underground distribution systems, wet and dry locations, industrial and commercial facilities, substations, utility networks, and both temporary and permanent installations. Ideal for high load conditions and unbalanced systems.

Performance

Operating Voltage: 15kV
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 stranded soft drawn bare copper per ASTM B3 and ASTM B8
Optional: Conductor moisture block and tinned copper per ASTM B33
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:175 Mils Tree Retardant Cross-Linked Polyethylene (TR-XLPE) with 133% insulation level
Insulation Shield:Strippable semi-conducting cross-linked copolymer
Concentric Neutral:Helically applied soft drawn bare copper full neutral
Overall Jacket:Linear Low-Density Polyethylene (LLDPE) Jacket, black with red extruded stripes

Specification

-ASTM B3 Soft or Annealed Copper Wire
-ASTM B8 Concentric-Lay-Stranded Copper Conductors
-ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
-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
2 (Solid)	0.257	0.735	220	0.825	16x14	0.164	50	1.053	768	8.4	530
2 (7)	0.282	0.753	220	0.843	16x14	0.164	50	1.071	749	8.6	530
1 (Solid)	0.289	0.767	220	0.857	20x14	0.131	50	1.085	893	8.7	669
1 (19)	0.322	0.8	220	0.89	20x14	0.131	50	1.118	912	8.9	669
1/0 (Solid)	0.324	0.802	220	0.892	25x14	0.105	50	1.12	1047	9	844
1/0 (19)	0.361	0.832	220	0.922	16x12	0.103	50	1.183	1052	9.5	844
2/0 (19)	0.405	0.876	220	0.966	13x10	0.08	50	1.269	1284	10.2	1064
3/0 (19)	0.456	0.934	220	1.024	25x12	0.066	50	1.286	1501	10.3	1342
4/0 (19)	0.512	0.982	220	1.072	20x10	0.052	50	1.375	1802	11	1692
250 (37)	0.558	1.044	220	1.154	25x10	0.041	50	1.458	2155	11.7	2000

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
2 (Solid)	0.162	0.204	0.071	0.054	0.07	0.61	0.258+j0.768	0.204+j0.053	5579	155	195
2 (7)	0.162	0.204	0.067	0.052	0.074	0.64	0.258+j0.767	0.204+j0.054	5579	155	195
1 (Solid)	0.128	0.162	0.066	0.052	0.075	0.65	0.216+j0.763	0.162+j0.050	6974	175	220
1 (19)	0.128	0.162	0.061	0.05	0.08	0.69	0.216+j0.761	0.162+j0.051	6974	175	220
1/0 (Solid)	0.102	0.128	0.061	0.05	0.081	0.7	0.182+j0.759	0.128+j0.048	8718	200	250
1/0 (19)	0.102	0.128	0.057	0.049	0.087	0.75	0.182+j0.756	0.128+j0.049	8865	200	250
2/0 (19)	0.081	0.102	0.053	0.048	0.094	0.81	0.156+j0.750	0.102+j0.048	11450	225	280
3/0 (19)	0.064	0.081	0.048	0.046	0.102	0.88	0.135+j0.747	0.081+j0.046	13852	260	315
4/0 (19)	0.051	0.065	0.044	0.045	0.111	0.96	0.119+j0.741	0.065+j0.045	17615	295	355
250 (37)	0.043	0.056	0.042	0.044	0.117	1.01	0.111+j0.736	0.056+j0.044	22019	318	360

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
2 (Solid)	6.53	18.67	5.59	20.96	16x14	0.54	1.27	26.75	1143	213.36	2359
2 (7)	7.16	19.13	5.59	21.41	16x14	0.54	1.27	27.2	1115	218.44	2359
1 (Solid)	7.34	19.48	5.59	21.77	20x14	0.43	1.27	27.56	1329	220.98	2977
1 (19)	8.18	20.32	5.59	22.61	20x14	0.43	1.27	28.4	1357	226.06	2977
1/0 (Solid)	8.23	20.37	5.59	22.66	25x14	0.34	1.27	28.45	1558	228.6	3756
1/0 (19)	9.17	21.13	5.59	23.42	16x12	0.34	1.27	30.05	1566	241.3	3756
2/0 (19)	10.29	22.25	5.59	24.54	13x10	0.26	1.27	32.23	1911	259.08	4735
3/0 (19)	11.58	23.72	5.59	26.01	25x12	0.22	1.27	32.66	2234	261.62	5972
4/0 (19)	13	24.94	5.59	27.23	20x10	0.17	1.27	34.93	2682	279.4	7529
250 (37)	14.17	26.52	5.59	29.31	25x10	0.13	1.27	37.03	3207	297.18	8900

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
2 (Solid)	0.5315	0.67	0.0216	0.1772	0.23	2.0013	0.258+j0.768	0.204+j0.053	5579	155	195
2 (7)	0.5315	0.67	0.0204	0.1706	0.243	2.0997	0.258+j0.767	0.204+j0.054	5579	155	195
1 (Solid)	0.4199	0.53	0.0201	0.1706	0.246	2.1325	0.216+j0.763	0.162+j0.050	6974	175	220
1 (19)	0.4199	0.53	0.0186	0.164	0.262	2.2638	0.216+j0.761	0.162+j0.051	6974	175	220
1/0 (Solid)	0.3346	0.42	0.0186	0.164	0.266	2.2966	0.182+j0.759	0.128+j0.048	8718	200	250
1/0 (19)	0.3346	0.42	0.0174	0.1608	0.285	2.4606	0.182+j0.756	0.128+j0.049	8865	200	250
2/0 (19)	0.2657	0.33	0.0162	0.1575	0.308	2.6575	0.156+j0.750	0.102+j0.048	11450	225	280
3/0 (19)	0.21	0.27	0.0146	0.1509	0.335	2.8871	0.135+j0.747	0.081+j0.046	13852	260	315
4/0 (19)	0.1673	0.21	0.0134	0.1476	0.364	3.1496	0.119+j0.741	0.065+j0.045	17615	295	355
250 (37)	0.1411	0.18	0.0128	0.1444	0.384	3.3136	0.111+j0.736	0.056+j0.044	22019	318	360