Application

They are suitable for high-reliability distribution systems, industrial and commercial installations, critical infrastructure, longer cable runs, light load conditions, cost-sensitive projects, residential and light commercial installations, underground distribution systems, wet and dry locations, industrial and commercial facilities, and substations. Ideal for areas where neutral current is significantly lower than phase current.

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:133% 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 one third concentric 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	6x14	0.438	50	1.053	633	8.4	530
2 (7)	0.282	0.753	220	0.843	6x14	0.438	50	1.071	630	8.6	530
1 (Solid)	0.289	0.767	220	0.857	7x14	0.375	50	1.085	717	8.7	669
1 (19)	0.322	0.8	220	0.89	7x14	0.375	50	1.118	736	8.9	669
1/0 (Solid)	0.324	0.802	220	0.892	9x14	0.292	50	1.12	831	9	844
1/0 (19)	0.361	0.832	220	0.922	9x14	0.292	50	1.15	831	9.2	844
2/0 (19)	0.405	0.876	220	0.966	11x14	0.239	50	1.194	964	9.6	1064
2/0 (19)	0.405	0.876	220	0.966	11x14	0.239	50	1.194	964	9.6	1064
3/0 (19)	0.456	0.934	220	1.024	14x14	0.187	50	1.252	1166	10	1342
4/0 (19)	0.512	0.982	220	1.072	18x14	0.146	50	1.3	1350	10.4	1692
250 (37)	0.558	1.044	220	1.154	21x14	0.125	50	1.382	1599	11.1	2000
350 (37)	0.661	1.141	220	1.251	18x12	0.092	50	1.512	2057	12.1	2800
500 (37)	0.789	1.269	220	1.379	26x12	0.063	50	1.64	2743	13.1	4000
500 (37)	0.789	1.269	220	1.379	17x10	0.061	75	1.736	2877	13.9	4000
600 (61)	0.865	1.356	220	1.466	20x10	0.052	75	1.823	3346	14.6	4800
750 (61)	0.968	1.458	220	1.568	25x10	0.041	75	1.925	4036	15.4	6000
750 (61)	0.968	1.458	220	1.568	20x9	0.041	75	1.95	4102	15.6	6000
1000 (61)	1.117	1.607	220	1.747	26x9	0.031	75	2.129	5237	17	8000
1000 (61)	1.117	1.607	220	1.747	21x8	0.031	75	2.158	5294	17.3	8000

Technical Parameters

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	2092	160	195
2 (7)	0.162	0.204	0.067	0.052	0.074	0.64	0.258+j0.767	0.204+j0.054	2092	160	195
1 (Solid)	0.128	0.162	0.066	0.052	0.075	0.65	0.216+j0.763	0.162+j0.050	2441	180	220
1 (19)	0.128	0.162	0.061	0.05	0.08	0.69	0.216+j0.761	0.162+j0.051	2441	180	220
1/0 (Solid)	0.102	0.128	0.061	0.05	0.081	0.7	0.182+j0.759	0.128+j0.048	3138	200	250
1/0 (19)	0.102	0.128	0.057	0.048	0.087	0.75	0.182+j0.757	0.128+j0.049	3138	200	250
2/0 (19)	0.081	0.102	0.053	0.047	0.094	0.81	0.156+j0.753	0.102+j0.047	3836	230	285
2/0 (19)	0.081	0.102	0.053	0.047	0.094	0.81	0.156+j0.753	0.102+j0.047	3836	230	285
3/0 (19)	0.064	0.081	0.048	0.045	0.102	0.88	0.135+j0.748	0.081+j0.045	4882	260	320
4/0 (19)	0.051	0.065	0.044	0.043	0.111	0.96	0.119+j0.743	0.065+j0.044	6277	300	360
250 (37)	0.043	0.056	0.042	0.043	0.117	1.01	0.111+j0.739	0.056+j0.043	7323	325	
350 (37)	0.031	0.041	0.037	0.041	0.133	1.15	0.095+j0.731	0.041+j0.041	9973	390	460
500 (37)	0.022	0.03	0.032	0.039	0.153	1.33	0.084+j0.721	0.030+j0.039	14406	455	525
500 (37)	0.022	0.03	0.032	0.04	0.153	1.33	0.084+j0.720	0.030+j0.040	14973	455	525
600 (61)	0.018	0.026	0.03	0.039	0.162	1.4	0.080+j0.715	0.026+j0.038	17615		
750 (61)	0.014	0.023	0.028	0.038	0.177	1.53	0.077+j0.711	0.023+j0.038	22019	545	580
750 (61)	0.014	0.023	0.028	0.038	0.177	1.53	0.077+j0.711	0.023+j0.038	22214	545	580
1000 (61)	0.011	0.019	0.025	0.036	0.2	1.73	0.073+j0.703	0.019+j0.036	28878		
1000 (61)	0.011	0.019	0.025	0.037	0.2	1.73	0.073+j0.702	0.019+j0.037	29419		

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	6x14	1.44	1.27	26.75	942	213.36	2359
2 (7)	7.16	19.13	5.59	21.41	6x14	1.44	1.27	27.2	938	218.44	2359
1 (Solid)	7.34	19.48	5.59	21.77	7x14	1.23	1.27	27.56	1067	220.98	2977
1 (19)	8.18	20.32	5.59	22.61	7x14	1.23	1.27	28.4	1095	226.06	2977
1/0 (Solid)	8.23	20.37	5.59	22.66	9x14	0.96	1.27	28.45	1237	228.6	3756
1/0 (19)	9.17	21.13	5.59	23.42	9x14	0.96	1.27	29.21	1237	233.68	3756
2/0 (19)	10.29	22.25	5.59	24.54	11x14	0.78	1.27	30.33	1435	243.84	4735
2/0 (19)	10.29	22.25	5.59	24.54	11x14	0.78	1.27	30.33	1435	243.84	4735
3/0 (19)	11.58	23.72	5.59	26.01	14x14	0.61	1.27	31.8	1735	254	5972
4/0 (19)	13	24.94	5.59	27.23	18x14	0.48	1.27	33.02	2009	264.16	7529
250 (37)	14.17	26.52	5.59	29.31	21x14	0.41	1.27	35.1	2380	281.94	8900
350 (37)	16.79	28.98	5.59	31.78	18x12	0.3	1.27	38.4	3061	307.34	12460
500 (37)	20.04	32.23	5.59	35.03	26x12	0.21	1.27	41.66	4082	332.74	17800
500 (37)	20.04	32.23	5.59	35.03	17x10	0.2	1.91	44.09	4281	353.06	17800
600 (61)	21.97	34.44	5.59	37.24	20x10	0.17	1.91	46.3	4979	370.84	21360
750 (61)	24.59	37.03	5.59	39.83	25x10	0.13	1.91	48.89	6006	391.16	26700
750 (61)	24.59	37.03	5.59	39.83	20x9	0.13	1.91	49.53	6104	396.24	26700
1000 (61)	28.37	40.82	5.59	44.37	26x9	0.1	1.91	54.08	7794	431.8	35600
1000 (61)	28.37	40.82	5.59	44.37	21x8	0.1	1.91	54.81	7878	439.42	35600

Technical Parameters

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	2092	160	195
2 (7)	0.5315	0.67	0.0204	0.1706	0.243	2.0997	0.258+j0.767	0.204+j0.054	2092	160	195
1 (Solid)	0.4199	0.53	0.0201	0.1706	0.246	2.1325	0.216+j0.763	0.162+j0.050	2441	180	220
1 (19)	0.4199	0.53	0.0186	0.164	0.262	2.2638	0.216+j0.761	0.162+j0.051	2441	180	220
1/0 (Solid)	0.3346	0.42	0.0186	0.164	0.266	2.2966	0.182+j0.759	0.128+j0.048	3138	200	250
1/0 (19)	0.3346	0.42	0.0174	0.1575	0.285	2.4606	0.182+j0.757	0.128+j0.049	3138	200	250
2/0 (19)	0.2657	0.33	0.0162	0.1542	0.308	2.6575	0.156+j0.753	0.102+j0.047	3836	230	285
2/0 (19)	0.2657	0.33	0.0162	0.1542	0.308	2.6575	0.156+j0.753	0.102+j0.047	3836	230	285
3/0 (19)	0.21	0.27	0.0146	0.1476	0.335	2.8871	0.135+j0.748	0.081+j0.045	4882	260	320
4/0 (19)	0.1673	0.21	0.0134	0.1411	0.364	3.1496	0.119+j0.743	0.065+j0.044	6277	300	360
250 (37)	0.1411	0.18	0.0128	0.1411	0.384	3.3136	0.111+j0.739	0.056+j0.043	7323	325	
350 (37)	0.1017	0.13	0.0113	0.1345	0.436	3.773	0.095+j0.731	0.041+j0.041	9973	390	460
500 (37)	0.0722	0.1	0.0098	0.128	0.502	4.3635	0.084+j0.721	0.030+j0.039	14406	455	525
500 (37)	0.0722	0.1	0.0098	0.1312	0.502	4.3635	0.084+j0.720	0.030+j0.040	14973	455	525
600 (61)	0.0591	0.09	0.0091	0.128	0.531	4.5932	0.080+j0.715	0.026+j0.038	17615		
750 (61)	0.0459	0.08	0.0085	0.1247	0.581	5.0197	0.077+j0.711	0.023+j0.038	22019	545	580
750 (61)	0.0459	0.08	0.0085	0.1247	0.581	5.0197	0.077+j0.711	0.023+j0.038	22214	545	580
1000 (61)	0.0361	0.06	0.0076	0.1181	0.656	5.6759	0.073+j0.703	0.019+j0.036	28878		
1000 (61)	0.0361	0.06	0.0076	0.1214	0.656	5.6759	0.073+j0.702	0.019+j0.037	29419		