



• Application

Designed for high-demand environments where reliable power distribution is crucial, this cable configuration with 133% insulation level and full neutral is well-suited for underground distribution systems, industrial plants, utility substations, and large commercial buildings. It offers enhanced insulation performance and balanced current distribution.

• 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 stranded soft drawn bare copper per ASTM B3 and ASTM B8 (Conductor moisture block optional and tinned copper per ASTM B33 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: 320 Mills Tree Retardant Cross Linked Polyethylene 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
 -AIEC 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: -40°C and MV 90°C 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 Rheinland 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	0.967	320	1.057	20x14	0.131	50	1.285	1070	10.3	669
1 (19)	0.322	1	320	1.11	20x14	0.131	50	1.338	1114	10.7	669
1/0 (Solid)	0.324	1.002	320	1.112	25x14	0.105	50	1.34	1249	10.7	844
1/0 (19)	0.361	1.039	320	1.149	25x14	0.105	50	1.377	1276	11	844
2/0 (19)	0.405	1.083	320	1.193	32x14	0.082	50	1.421	1489	11.4	1064
3/0 (19)	0.456	1.134	320	1.244	25x12	0.066	50	1.506	1726	12	1342
4/0 (19)	0.512	1.19	320	1.3	32x12	0.051	50	1.562	2048	12.5	1692
250 (37)	0.558	1.244	320	1.354	25x10	0.041	75	1.708	2462	13.7	2000

All dimensions are nominal and subject to normal manufacturing tolerances

-Cable marked with this symbol is a standard stock item

-Pulling tension based on pulling eye directly connected to conductor

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)	0.128	0.162	0.082	0.056	0.101	1.46	0.216+j0.755	0.162+j0.054	6974	175	220
1 (19)	0.128	0.162	0.077	0.054	0.108	1.56	0.216+j0.753	0.162+j0.055	6974	175	220
1/0 (Solid)	0.102	0.128	0.076	0.054	0.108	1.56	0.182+j0.750	0.128+j0.052	8718	200	250
1/0 (19)	0.102	0.128	0.071	0.052	0.116	1.67	0.182+j0.749	0.128+j0.053	8718	200	250
2/0 (19)	0.081	0.102	0.066	0.051	0.124	1.79	0.156+j0.745	0.102+j0.051	11159	225	280
3/0 (19)	0.064	0.081	0.061	0.049	0.134	1.93	0.135+j0.740	0.081+j0.049	13852	260	315
4/0 (19)	0.051	0.065	0.057	0.047	0.145	2.09	0.119+j0.735	0.065+j0.048	17730	295	355
250 (37)	0.043	0.056	0.054	0.047	0.152	2.19	0.111+j0.729	0.056+j0.048	22019	318	360

-Ampacities for Direct Buried are based on ICEA P-117-734-2016 Single-Conductor Solid Dielectric 15-35kV. Single Circuit Flat Direct Buried Figure 3

-Ampacities for Duct are based on ICEA P-117-734-2016 for Single-Conductor Solid Dielectric 15-35kV. Single Circuit Trefoil Conduit Figure 7.

-Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.

● 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	24.56	8.13	26.85	20x14	0.43	1.27	32.64	1592	261.62	2977
1 (19)	8.18	25.4	8.13	28.19	20x14	0.43	1.27	33.99	1658	271.78	2977
1/0 (Solid)	8.23	25.45	8.13	28.24	25x14	0.34	1.27	34.04	1859	271.78	3756
1/0 (19)	9.17	26.39	8.13	29.18	25x14	0.34	1.27	34.98	1899	279.4	3756
2/0 (19)	10.29	27.51	8.13	30.3	32x14	0.27	1.27	36.09	2216	289.56	4735
3/0 (19)	11.58	28.8	8.13	31.6	25x12	0.22	1.27	38.25	2569	304.8	5972
4/0 (19)	13	30.23	8.13	33.02	32x12	0.17	1.27	39.67	3048	317.5	7529
250 (37)	14.17	31.6	8.13	34.39	25x10	0.13	1.91	43.38	3664	347.98	8900

All dimensions are nominal and subject to normal manufacturing tolerances

-Cable marked with this symbol is a standard stock item

-Pulling tension based on pulling eye directly connected to conductor

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)	0.4199	0.53	0.025	0.1837	0.331	4.79	0.216+j0.755	0.162+j0.054	6974	175	220
1 (19)	0.4199	0.53	0.0235	0.1772	0.354	5.1181	0.216+j0.753	0.162+j0.055	6974	175	220
1/0 (Solid)	0.3346	0.42	0.0232	0.1772	0.354	5.1181	0.182+j0.750	0.128+j0.052	8718	200	250
1/0 (19)	0.3346	0.42	0.0216	0.1706	0.381	5.479	0.182+j0.749	0.128+j0.053	8718	200	250
2/0 (19)	0.2657	0.33	0.0201	0.1673	0.407	5.8727	0.156+j0.745	0.102+j0.051	11159	225	280
3/0 (19)	0.21	0.27	0.0186	0.1608	0.44	6.332	0.135+j0.740	0.081+j0.049	13852	260	315
4/0 (19)	0.1673	0.21	0.0174	0.1542	0.476	6.857	0.119+j0.735	0.065+j0.048	17730	295	355
250 (37)	0.1411	0.18	0.0165	0.1542	0.499	7.185	0.111+j0.729	0.056+j0.048	22019	318	360

-Ampacities for Direct Buried are based on ICEA P-117-734-2016 Single-Conductor Solid Dielectric 15-35kV. Single Circuit Flat Direct Buried Figure 3

-Ampacities for Duct are based on ICEA P-117-734-2016 for Single-Conductor Solid Dielectric 15-35kV. Single Circuit Trefoil Conduit Figure 7.

-Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.