



• Application

This cable configuration with 133% insulation level and one third neutral is suitable for applications requiring stable power distribution with reduced electromagnetic interference. It is commonly used in utility networks, industrial facilities, and commercial installations, efficiently managing unbalanced loads while ensuring reliable power transmission.

• Performance

Operating Voltage: 35kV
 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: Aluminum conductors with 133% Tree Retardant Cross-Linked Polyethylene (TR-XLPE) insulation
 Conductor Shield: Conventional semi-conducting cross-linked copolymer; Optional supersmooth conductor shield; Conductor tape used for cable size larger than or equal to 1500 kcmil
 Insulation: 133% Tree Retardant Cross-Linked Polyethylene (TR-XLPE) with 100% insulation level
 Insulation Shield: Strippable semi-conducting cross-linked copolymer
 Concentric Neutral: Helically applied soft drawn bare aluminum one third 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
 -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	mil	inch	No. x AWG	Ω/1000ft	mil	inch	lb/1000ft	inch	lb
4/0 (19)	0.498	1.368	420	1.478	11x14	0.239	75	1.76	1269	14.1	1269
250 (37)	0.558	1.444	420	1.554	13x14	0.202	75	1.832	1520	14.7	1500
350 (37)	0.661	1.541	420	1.651	18x14	0.146	75	1.933	1643	15.5	2100
500 (37)	0.789	1.669	420	1.809	16x12	0.103	75	2.124	2079	17	3000
750 (61)	0.968	1.858	420	1.998	24x12	0.069	75	2.313	2659	18.5	4500
750 (61)	0.968	1.858	420	1.998	24x12	0.069	75	2.313	2660	18.5	4500
750 (61)	0.968	1.858	420	1.998	15x10	0.069	75	2.355	2718	18.8	4500
1000 (61)	1.117	2.007	420	2.147	20x10	0.052	75	2.504	3257	20	6000

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

-HiDri-Plus® - Water Blocking Powder

-HiDri-Plus® - Water Blocking Powder. CSA Listed

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
4/0 (19)	0.084	0.105	0.069	0.051	0.168	3.4	0.159+j0.730	0.105+j0.050	3836	235	285
250 (37)	0.071	0.09	0.064	0.049	0.18	3.6	0.144+j0.726	0.090+j0.049	4533	257	
350 (37)	0.05	0.065	0.057	0.047	0.201	4.1	0.119+j0.719	0.065+j0.047	6277	315	370
500 (37)	0.035	0.046	0.051	0.044	0.227	4.6	0.100+j0.711	0.046+j0.045	8865	380	445
750 (61)	0.024	0.033	0.044	0.042	0.261	5.3	0.087+j0.702	0.033+j0.042	13298	470	530
750 (61)	0.024	0.033	0.044	0.042	0.261	5.3	0.087+j0.702	0.033+j0.042	13298	470	530
750 (61)	0.024	0.033	0.044	0.042	0.261	5.3	0.087+j0.701	0.033+j0.042	13211	470	530
1000 (61)	0.018	0.026	0.04	0.04	0.291	5.9	0.080+j0.695	0.026+j0.040	17615	530	585

-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
4/0 (19)	12.65	34.75	10.67	37.54	11x14	0.78	1.91	44.7	1888	358.14	5647
250 (37)	14.17	36.68	10.67	39.47	13x14	0.66	1.91	46.53	2262	373.38	6675
350 (37)	16.79	39.14	10.67	41.94	18x14	0.48	1.91	49.1	2445	393.7	9345
500 (37)	20.04	42.39	10.67	45.95	16x12	0.34	1.91	53.95	3094	431.8	13350
750 (61)	24.59	47.19	10.67	50.75	24x12	0.23	1.91	58.75	3957	469.9	20025
750 (61)	24.59	47.19	10.67	50.75	24x12	0.23	1.91	58.75	3959	469.9	20025
750 (61)	24.59	47.19	10.67	50.75	15x10	0.23	1.91	59.82	4045	477.52	20025
1000 (61)	28.37	50.98	10.67	54.53	20x10	0.17	1.91	63.6	4847	508	26700

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

-HiDri-Plus® - Water Blocking Powder

-HiDri-Plus® - Water Blocking Powder. CSA Listed

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
4/0 (19)	0.2756	0.34	0.021	0.1673	0.551	11.1549	0.159+j0.730	0.105+j0.050	3836	235	285
250 (37)	0.2329	0.3	0.0195	0.1608	0.591	11.811	0.144+j0.726	0.090+j0.049	4533	257	
350 (37)	0.164	0.21	0.0174	0.1542	0.659	13.4514	0.119+j0.719	0.065+j0.047	6277	315	370
500 (37)	0.1148	0.15	0.0155	0.1444	0.745	15.0919	0.100+j0.711	0.046+j0.045	8865	380	445
750 (61)	0.0787	0.11	0.0134	0.1378	0.856	17.3885	0.087+j0.702	0.033+j0.042	13298	470	530
750 (61)	0.0787	0.11	0.0134	0.1378	0.856	17.3885	0.087+j0.702	0.033+j0.042	13298	470	530
750 (61)	0.0787	0.11	0.0134	0.1378	0.856	17.3885	0.087+j0.701	0.033+j0.042	13211	470	530
1000 (61)	0.0591	0.09	0.0122	0.1312	0.955	19.357	0.080+j0.695	0.026+j0.040	17615	530	585

-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.