Transformer Riser Wire, Protected Ground Wire (PGW), Cathodic Protection (CP) Cables, LLDPE

Black Polyethylene Covered. Solid or Stranded Soft Drawn Copper Conductor

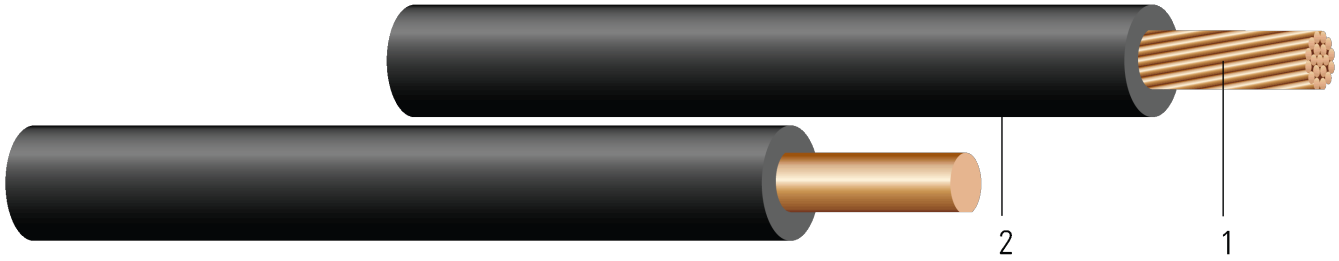

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Conductors are solid or stranded compressed copper
2. **Covering:** Black Linear Low Density Polyethylene (LLDPE) also known as High Molecular Weight Polyethylene (HMWPE)

APPLICATIONS AND FEATURES:

Used as covered grounding conductors, protected ground wires (PGW), cathodic protection (CP) cables, or on transformers as connection between line conductor and transformer primary bushing in applications where protection from momentary contact from wildlife is needed. Although not treated as an insulation, the thermoplastic polyethylene covering does provide an increased level of protection from momentary grounded contacts caused by wildlife, excessive wind and tree limbs or other grounded objects in the proximity of the high voltage lead. May be used on distribution system voltages up to 35kV line-to-line.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ICEA S-70-547 Weather Resistant Polyethylene Covers Conductors

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Table 1 – Weights and Measurements

Stock Number	Phase Cond. Size	Phase Strand	Dia. Over Phase Conductor	Phase Insul. Thickness	Approx. OD	Approx. Weight
	AWG/Kcmil	No.	inch	mil	inch	lb/1000ft
151035	8	SOLID	0.129	110	0.348	83
207076	8	7	0.142	110	0.362	87
643650	6	SOLID	0.162	45	0.252	91
142752	6	SOLID	0.162	110	0.382	117
614562	6	7	0.178	80	0.338	108
368646	6	7	0.178	110	0.398	122
142745	4	SOLID	0.204	110	0.424	170
257998	4	7	0.225	60	0.345	152
240093	4	7	0.225	110	0.445	177
661857	4	7	0.225	125	0.475	186
109207	2	SOLID	0.258	45	0.348	218
621463	2	SOLID	0.258	110	0.478	252
109306	2	7	0.283	45	0.373	226
109298	2	7	0.283	45	0.373	226
109314	2	7	0.283	45	0.373	226
616506	2	7	0.283	80	0.443	244
403477	2	7	0.283	110	0.503	262
661821	2	7	0.283	110	0.503	262
109348	8	7	0.362	60	0.477	361
109439	4/0	7	0.512	60	0.626	703
606864	4/0	19	0.512	110	0.732	744
505461	500	37	0.789	120	1.029	1689
606862	500	37	0.789	120	1.029	1689
109579	750	61	0.968	80	1.128	2430

All dimensions are nominal and subject to normal manufacturing tolerances
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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Table 2 – Electrical and Engineering Data

Phase Cond. Size	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	GMR	Allowable Ampacity In Air 75/90°C
AWG/Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	ft	Amp
8	0.653	0.81	0.052	0.053	70/80
8	0.653	0.81	0.052	0.053	70/80
6	0.411	0.51	0.051	0.067	95/105
6	0.411	0.51	0.051	0.067	95/105
6	0.411	0.51	0.051	0.067	95/105
6	0.411	0.51	0.051	0.067	95/105
4	0.258	0.32	0.048	0.084	125/140
4	0.258	0.32	0.048	0.084	125/140
4	0.258	0.32	0.048	0.084	125/140
4	0.258	0.32	0.048	0.084	125/140
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
2	0.162	0.201	0.045	0.105	170/190
8	0.653	0.81	0.052	0.053	70/80
4/0	0.051	0.063	0.041	0.197	360/405
4/0	0.051	0.063	0.041	0.197	360/405
500	0.021	0.027	0.039	0.305	620/700
500	0.021	0.027	0.039	0.305	620/700
750	0.014	0.019	0.038	0.377	785/885

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