15kV CU 133% EPR One-Third Neutral LLDPE Primary UD

Single Conductor, 220 Mils Ethylene Propylene Rubber (EPR), 133% Insulation Level, One-third Concentric Neutral, Linear Low Density Polyethylene (LLDPE) Jacket

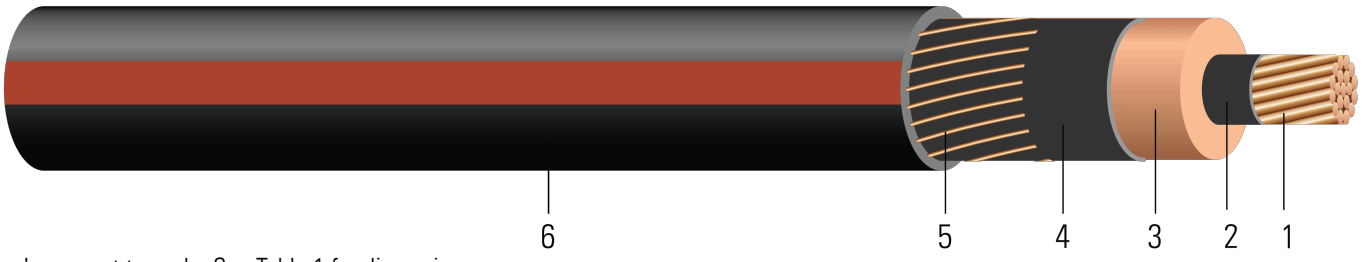

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Moisture blocked class B compressed stranded soft drawn bare copper per ASTM B3 and ASTM B8 (Non Moisture Blocked Optional)
2. **Conductor Shield:** Conventional Semi-conducting cross-linked copolymer. A conductor tape is used for cable size larger than or equal to 1500 Kcmil
3. **Insulation:** 220 Mils Ethylene Propylene Rubber (EPR) 133% insulation level
4. **Insulation Shield:** Strippable semi-conducting cross-linked copolymer
5. **Concentric Neutral:** Helically applied soft drawn bare copper one-third concentric neutral
6. **Overall Jacket:** Linear Low Density Polyethylene (LLDPE) Jacket, black with red extruded stripes; PowerGlide® LLDPE jacket optional

APPLICATIONS AND FEATURES:

Southwire's 15kV cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, sunlight, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 105°C for normal operation. 140°C for emergency overload, and 250°C for short circuit conditions. Jacket types available that can be installed in conduit without the aid of lubrication. Rated for 1000 lbs./FT maximum sidewall pressure.

SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- 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
- UL 1072 - Listed Listed as MV 90 When Specified

SAMPLE PRINT LEGEND:

SOUTHWIRE HI-DRI(R) [CONDUCTOR SIZE] [AWG or KCMIL] CU 15000 VOLTS EPR INSULATION 220 MILS -- (NESC) -- SOUTHWIRE {MMM} {YYYY} NON-CONDUCTING JACKET

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Diameter Over Insulation	Insul. Thickness	Diameter Over Insulation Shield	Concentric Neutral	Neutral DC Resistance 25°C	Jacket Thickness	Approx. OD	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
TBA	2 (1)	0.258	0.735	220	0.815	6x14	0.438	50	1.043	645	12.5	531
627966	2 (7)	0.283	0.760	220	0.840	6x14	0.438	50	1.068	674	12.8	531
TBA	1 (1)	0.289	0.766	220	0.846	7x14	0.376	50	1.074	727	12.9	670
TBA	1 (19)	0.322	0.799	220	0.879	7x14	0.376	50	1.107	763	13.3	670
TBA	1/0 (1)	0.325	0.802	220	0.882	9x14	0.292	50	1.110	837	13.3	845
627970	1/0 (19)	0.362	0.839	220	0.919	9x14	0.292	50	1.147	879	13.8	845
627973	2/0 (19)	0.405	0.882	220	0.962	11x14	0.239	50	1.190	1015	14.3	1065
TBA	3/0 (19)	0.456	0.933	220	1.013	14x14	0.188	50	1.241	1191	14.9	1342
627975	4/0 (19)	0.512	0.989	220	1.069	18x14	0.146	50	1.297	1410	15.6	1693
TBA	250 (37)	0.558	1.044	220	1.144	21x14	0.125	50	1.372	1620	16.5	2000
627967	350 (37)	0.661	1.147	220	1.247	18x12	0.092	50	1.507	2122	18.1	2800
627983	500 (37)	0.789	1.275	220	1.375	17x10	0.061	80	1.739	2953	20.9	4000
606626**	750 (61)	0.968	1.463	220	1.563	25x10	0.041	80	1.952	4148	23.4	6000
627977	750 (61)	0.968	1.463	220	1.563	25x10	0.041	80	1.952	4148	23.4	6000
618572	1000 (61)	1.117	1.612	220	1.742	26x9	0.031	80	2.159	5371	25.9	8000

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
** All Black PE jacket

Table 2 – Electrical and Engineering Data

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive 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	Amp	Amp	Amp
2 (1)	0.162	0.203	0.051	0.051	0.170	29.395	0.521+j0.233	0.204+j0.051	2025.6	160	195
2 (7)	0.162	0.203	0.048	0.049	0.179	31.023	0.520+j0.232	0.204+j0.049	2025.6	160	195
1 (1)	0.129	0.161	0.048	0.049	0.181	31.412	0.455+j0.193	0.162+j0.049	2363.3	180	220
1 (19)	0.129	0.161	0.045	0.048	0.194	33.542	0.454+j0.192	0.162+j0.047	2363.3	180	220
1/0 (1)	0.102	0.128	0.044	0.047	0.195	33.735	0.380+j0.140	0.129+j0.047	3038.5	200	250
1/0 (19)	0.102	0.128	0.042	0.046	0.208	36.105	0.379+j0.139	0.129+j0.046	3038.5	200	250
2/0 (19)	0.081	0.101	0.039	0.044	0.224	38.841	0.318+j0.107	0.103+j0.044	3713.7	230	285
3/0 (19)	0.0642	0.080	0.036	0.043	0.243	42.068	0.259+j0.079	0.082+j0.043	4726.5	260	325
4/0 (19)	0.051	0.064	0.033	0.041	0.263	45.591	0.208+j0.059	0.067+j0.041	6076.9	300	365
250 (37)	0.0431	0.054	0.031	0.041	0.283	49.037	0.179+j0.050	0.057+j0.040	7089.8		
350 (37)	0.0308	0.039	0.027	0.039	0.320	55.458	0.134+j0.039	0.043+j0.038	9655.1	390	475
500 (37)	0.0216	0.028	0.024	0.039	0.366	63.399	0.091+j0.030	0.034+j0.036	14494.9	455	555
750 (61)	0.0144	0.019	0.020	0.037	0.433	75.010	0.062+j0.025	0.026+j0.032	21505.0	545	650
750 (61)	0.0144	0.019	0.020	0.037	0.433	75.010	0.062+j0.025	0.026+j0.032	21505.0	545	650
1000 (61)	0.0108	0.015	0.018	0.036	0.486	84.184	0.047+j0.023	0.023+j0.029	28479.8		

* Calculations are based on three cables triplexed / concentric shield / Conductor temperature of 90°C / Shield temperature of 45°C / Earth resistivity of 100 ohms-meter

† Ampacities are based on Figure 7 of ICEA T-117-734 (Single circuit trefoil, 100% load factor, 90°C conductor temperature, earth RHO 90, 36" burial depth)

‡ Ampacities are based on Figure 1 of ICEA T-117-734 (Single circuit trefoil, 100% load factor, 90°C conductor temperature, earth RHO 90, 36" burial depth)

Table 3 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Diameter Over Conductor	Diameter Over Insulation	Insul. Thickness	Diameter Over Insulation Shield	Concentric Neutral	Neutral DC Resistance 25°C	Jacket Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension*
	AWG/ Kcmil	mm	mm	mm	mm	No. x AWG	Ω/km	mm	mm	kg/km	mm	newton
TBA	2 (1)	6.55	18.67	5.59	20.70	6x14	1.44	1.27	26.49	960	317.50	2363
627966	2 (7)	7.19	19.30	5.59	21.34	6x14	1.44	1.27	27.13	1003	325.12	2363
TBA	1 (1)	7.34	19.46	5.59	21.49	7x14	1.23	1.27	27.28	1082	327.66	2982
TBA	1 (19)	8.18	20.29	5.59	22.33	7x14	1.23	1.27	28.12	1135	337.82	2982
TBA	1/0 (1)	8.25	20.37	5.59	22.40	9x14	0.96	1.27	28.19	1246	337.82	3760
627970	1/0 (19)	9.19	21.31	5.59	23.34	9x14	0.96	1.27	29.13	1308	350.52	3760
627973	2/0 (19)	10.29	22.40	5.59	24.43	11x14	0.78	1.27	30.23	1510	363.22	4739
TBA	3/0 (19)	11.58	23.70	5.59	25.73	14x14	0.62	1.27	31.52	1772	378.46	5972
627975	4/0 (19)	13.00	25.12	5.59	27.15	18x14	0.48	1.27	32.94	2098	396.24	7534
TBA	250 (37)	14.17	26.52	5.59	29.06	21x14	0.41	1.27	34.85	2411	419.10	8900
627967	350 (37)	16.79	29.13	5.59	31.67	18x12	0.30	1.27	38.28	3158	459.74	12460
627983	500 (37)	20.04	32.39	5.59	34.93	17x10	0.20	2.03	44.17	4395	530.86	17800
606626**	750 (61)	24.59	37.16	5.59	39.70	25x10	0.13	2.03	49.58	6173	594.36	26700
627977	750 (61)	24.59	37.16	5.59	39.70	25x10	0.13	2.03	49.58	6173	594.36	26700
618572	1000 (61)	28.37	40.94	5.59	44.25	26x9	0.10	2.03	54.84	7993	657.86	35600

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
** All Black PE jacket

Table 4 – Electrical and Engineering Data (Metric)

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive 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	Amp	Amp	Amp
2 (1)	0.5315	0.67	0.0155	0.1673	0.558	96.4403	0.521+j0.233	0.204+j0.051	2025.6	160	195
2 (7)	0.5315	0.67	0.0146	0.1608	0.587	101.7815	0.520+j0.232	0.204+j0.049	2025.6	160	195
1 (1)	0.4232	0.53	0.0146	0.1608	0.594	103.0577	0.455+j0.193	0.162+j0.049	2363.3	180	220
1 (19)	0.4232	0.53	0.0137	0.1575	0.636	110.0459	0.454+j0.192	0.162+j0.047	2363.3	180	220
1/0 (1)	0.3346	0.42	0.0134	0.1542	0.640	110.6791	0.380+j0.140	0.129+j0.047	3038.5	200	250
1/0 (19)	0.3346	0.42	0.0128	0.1509	0.682	118.4547	0.379+j0.139	0.129+j0.046	3038.5	200	250
2/0 (19)	0.2657	0.33	0.0119	0.1444	0.735	127.4311	0.318+j0.107	0.103+j0.044	3713.7	230	285
3/0 (19)	0.2106	0.26	0.0110	0.1411	0.797	138.0184	0.259+j0.079	0.082+j0.043	4726.5	260	325
4/0 (19)	0.1673	0.21	0.0101	0.1345	0.863	149.5768	0.208+j0.059	0.067+j0.041	6076.9	300	365
250 (37)	0.1414	0.18	0.0094	0.1345	0.928	160.8825	0.179+j0.050	0.057+j0.040	7089.8		
350 (37)	0.1010	0.13	0.0082	0.1280	1.050	181.9488	0.134+j0.039	0.043+j0.038	9655.1	390	475
500 (37)	0.0709	0.09	0.0073	0.1280	1.201	208.0020	0.091+j0.030	0.034+j0.036	14494.9	455	555
750 (61)	0.0472	0.06	0.0061	0.1214	1.421	246.0958	0.062+j0.025	0.026+j0.032	21505.0	545	650
750 (61)	0.0472	0.06	0.0061	0.1214	1.421	246.0958	0.062+j0.025	0.026+j0.032	21505.0	545	650
1000 (61)	0.0354	0.05	0.0055	0.1181	1.594	276.1942	0.047+j0.023	0.023+j0.029	28479.8		

* Calculations are based on three cables triplexed / concentric shield / Conductor temperature of 90°C / Shield temperature of 45°C / Earth resistivity of 100 ohms-meter

† Ampacities are based on Figure 7 of ICEA T-117-734 (Single circuit trefoil, 100% load factor, 90°C conductor temperature, earth RHO 90, 36" burial depth)

‡ Ampacities are based on Figure 1 of ICEA T-117-734 (Single circuit trefoil, 100% load factor, 90°C conductor temperature, earth RHO 90, 36" burial depth)