25kV CU 133% EPR (EAM) One-Third Neutral LLDPE

Single Conductor, 320 Mils Ethylene Propylene Rubber (EPR) / Ethylene Alkene Copolymer (EAM), 133% Insulation Level, One-third Concentric Neutral, Linear Low Density Polyethylene (LLDPE) Jacket. Silicone Free

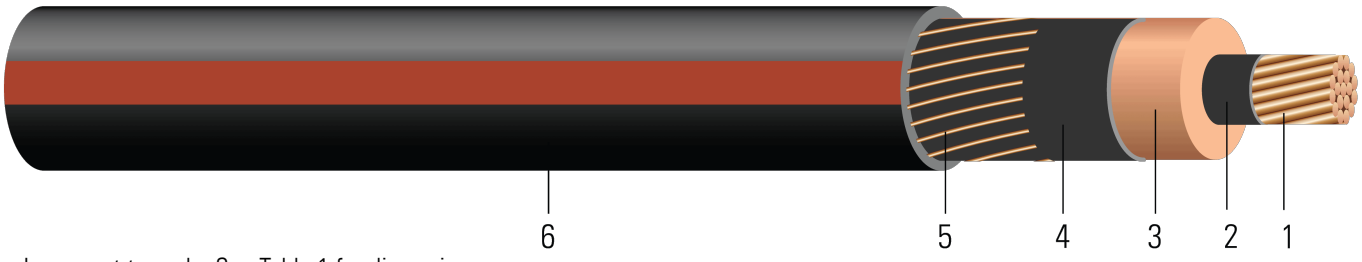

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Moisture blocked class B compressed stranded soft drawn bare copper per ASTM B3 and ASTM B8 (Conductor moisture block optional and tinned copper per ASTM B33 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:** 320 Mils Ethylene Propylene Rubber (EPR) / Ethylene Alkene Copolymer (EAM) 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 25kV cables are suited for use in wet and dry areas, conduits, ducts, 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 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

SAMPLE PRINT LEGEND:

SOUTHWIRE HI-DRI(R) [CONDUCTOR SIZE] [AWG or KCMIL] CU 25000 VOLTS EPR INSULATION 320 MILS -- (NESC) -- SOUTHWIRE {MMM} {YYYY} NON-CONDUCTING JACKET

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UPDATED: Aug. 10, 2025, 11:33 p.m.UTC REVISION: 1.000.002

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	1 (Solid)	0.289	0.967	320	1.057	7x14	0.375	50	1.285	896	10.3	669
TBA	1 (19)	0.322	1.000	320	1.110	7x14	0.375	50	1.338	939	10.7	669
TBA	1/0 (Solid)	0.324	1.002	320	1.112	9x14	0.292	50	1.340	1036	10.7	844
457260	1/0 (19)	0.361	1.032	320	1.22	9x14	0.292	50	1.350	1078	10.8	844
TBA	2/0 (19)	0.405	1.083	320	1.193	11x14	0.239	50	1.421	1208	11.4	1064
TBA	3/0 (19)	0.456	1.134	320	1.244	14x14	0.187	50	1.472	1393	11.8	1342
660004	4/0 (19)	0.512	1.182	320	1.292	18x14	0.146	50	1.520	1659	12.2	1692
664340	250 (37)	0.558	1.238	320	1.348	21x14	0.125	50	1.576	1865	12.6	2000
TBA	350 (37)	0.661	1.347	320	1.457	29x14	0.090	75	1.735	2406	13.9	2800
TBA	500 (37)	0.789	1.475	320	1.585	26x12	0.063	75	1.897	3124	15.2	4000
TBA	750 (61)	0.968	1.664	320	1.804	25x10	0.041	75	2.158	4399	17.3	6000
TBA	1000 (61)	1.117	1.813	320	1.953	33x10	0.031	75	2.307	5561	18.5	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
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.

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
1 (Solid)	0.128	0.162	0.056	0.056	0.255	31.7	0.216 + j1.200	0.162 + j0.508	2441	180	220
1 (19)	0.128	0.162	0.053	0.054	0.270	33.5	0.216 + j1.141	0.162 + j0.451	2441	180	220
1/0 (Solid)	0.102	0.128	0.052	0.054	0.272	33.8	0.182 + j1.138	0.128 + j0.447	3138	200	250
1/0 (19)	0.102	0.128	0.049	0.052	0.289	35.9	0.182 + j1.086	0.128 + j0.396	3138	200	250
2/0 (19)	0.081	0.102	0.046	0.051	0.309	38.4	0.156 + j1.037	0.102 + j0.349	3836	230	285
3/0 (19)	0.064	0.081	0.043	0.049	0.332	41.2	0.135 + j0.991	0.081 + j0.305	4882	260	320
4/0 (19)	0.051	0.065	0.040	0.047	0.358	44.4	0.119 + j0.951	0.065 + j0.267	6277	300	360
250 (37)	0.043	0.056	0.037	0.046	0.382	47.4	0.110 + j0.923	0.056 + j0.241	7323	325	
350 (37)	0.031	0.041	0.033	0.044	0.429	53.3	0.095 + j0.874	0.041 + j0.198	10113	390	460
500 (37)	0.022	0.030	0.029	0.042	0.486	60.3	0.084 + j0.830	0.030 + j0.160	14406	455	525
750 (61)	0.014	0.023	0.025	0.040	0.569	70.6	0.077 + j0.786	0.023 + j0.124	22019	545	580
1000 (61)	0.011	0.019	0.022	0.038	0.635	78.8	0.073 + j0.760	0.019 + j0.103	29065		

*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, Spacing: one diameter spacing center-to-center.

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	1 (Solid)	7.34	24.56	8.13	26.85	7x14	1.23	1.27	32.64	1333	261.62	2977
TBA	1 (19)	8.18	25.40	8.13	28.19	7x14	1.23	1.27	33.99	1397	271.78	2977
TBA	1/0 (Solid)	8.23	25.45	8.13	28.24	9x14	0.96	1.27	34.04	1542	271.78	3756
457260	1/0 (19)	9.17	26.21	8.13	30.99	9x14	0.96	1.27	34.29	1604	274.32	3756
TBA	2/0 (19)	10.29	27.51	8.13	30.30	11x14	0.78	1.27	36.09	1798	289.56	4735
TBA	3/0 (19)	11.58	28.80	8.13	31.60	14x14	0.61	1.27	37.39	2073	299.72	5972
660004	4/0 (19)	13.00	30.02	8.13	32.82	18x14	0.48	1.27	38.61	2469	309.88	7529
664340	250 (37)	14.17	31.45	8.13	34.24	21x14	0.41	1.27	40.03	2775	320.04	8900
TBA	350 (37)	16.79	34.21	8.13	37.01	29x14	0.30	1.91	44.07	3581	353.06	12460
TBA	500 (37)	20.04	37.47	8.13	40.26	26x12	0.21	1.91	48.18	4649	386.08	17800
TBA	750 (61)	24.59	42.27	8.13	45.82	25x10	0.13	1.91	54.81	6546	439.42	26700
TBA	1000 (61)	28.37	46.05	8.13	49.61	33x10	0.10	1.91	58.60	8276	469.90	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
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.

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
1 (Solid)	0.4199	0.53	0.0171	0.1837	0.837	104.0026	0.216 + j1.200	0.162 + j0.508	2441	180	220
1 (19)	0.4199	0.53	0.0162	0.1772	0.886	109.9081	0.216 + j1.141	0.162 + j0.451	2441	180	220
1/0 (Solid)	0.3346	0.42	0.0158	0.1772	0.892	110.8924	0.182 + j1.138	0.128 + j0.447	3138	200	250
1/0 (19)	0.3346	0.42	0.0149	0.1706	0.948	117.7822	0.182 + j1.086	0.128 + j0.396	3138	200	250
2/0 (19)	0.2657	0.33	0.0140	0.1673	1.014	125.9843	0.156 + j1.037	0.102 + j0.349	3836	230	285
3/0 (19)	0.2100	0.27	0.0131	0.1608	1.089	135.1706	0.135 + j0.991	0.081 + j0.305	4882	260	320
4/0 (19)	0.1673	0.21	0.0122	0.1542	1.175	145.6693	0.119 + j0.951	0.065 + j0.267	6277	300	360
250 (37)	0.1411	0.18	0.0113	0.1509	1.253	155.5118	0.110 + j0.923	0.056 + j0.241	7323	325	
350 (37)	0.1017	0.13	0.0101	0.1444	1.407	174.8688	0.095 + j0.874	0.041 + j0.198	10113	390	460
500 (37)	0.0722	0.10	0.0088	0.1378	1.594	197.8346	0.084 + j0.830	0.030 + j0.160	14406	455	525
750 (61)	0.0459	0.08	0.0076	0.1312	1.867	231.6273	0.077 + j0.786	0.023 + j0.124	22019	545	580
1000 (61)	0.0361	0.06	0.0067	0.1247	2.083	258.5302	0.073 + j0.760	0.019 + j0.103	29065		

*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, Spacing: one diameter spacing center-to-center.

Concentric Neutral Calculator

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