

# 25kV Medium Voltage EPR Cable

## CONSTRUCTION AT A GLANCE

**CONDUCTOR TYPE** ①  
ALUMINUM OR COPPER

**INSULATION TYPE** ②  
EPR

**JACKET TYPE** ③  
PE

## APPLICATIONS

- Predominantly used for primary underground distribution in conduit systems or in the solar collection system; suitable for use in wet or dry locations, direct burial, underground duct, and where exposed to sunlight.
- To be used at 25,000 volts or less and at conductor temperatures not to exceed 105°C for normal operation.

## CONSTRUCTION DETAILS

- Phase conductor is concentrically stranded, compressed soft copper or 1350-H16/26 aluminum
- Cable is composed of the conductor, covered by a semi-conducting cross-linked polymer strand shield, an ethylene propylene primary insulation, and a semi-conducting cross-linked polymer insulation shield
- A concentric neutral of bare copper wires and an insulating polyethylene jacket are applied over the insulation shield
- Cable is identified by surface print on the jacket and with the lightning bolt symbol for supply cables indented in the jacket

## SPECIFICATIONS

Southwire 25kV MV Primary UD EPR Cable meets or exceeds the following ASTM specifications:

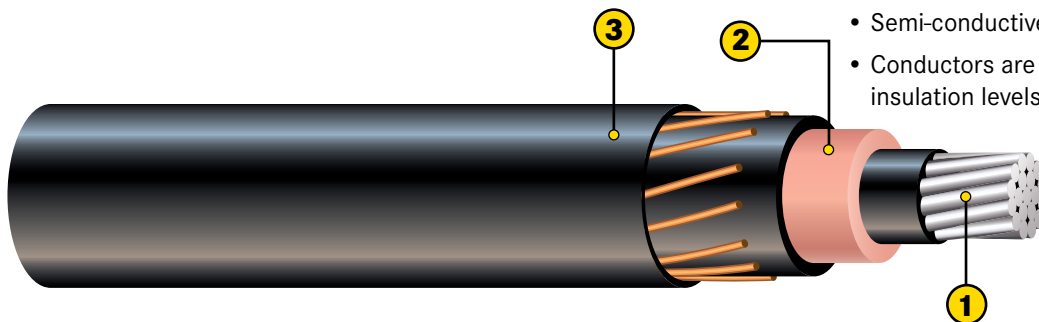
- B 3: Soft Annealed Copper Wire
- B 8: Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard or Soft
- B 230: Aluminum, 1350-H19 Wire for Electrical Purposes
- B 231: Aluminum 1350 Conductors, Concentric-Lay-Stranded
- B 609: Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

Southwire 25kV MV Primary UD EPR Cable is manufactured to the latest edition of the following specifications, and in case of specification conflicts, in the order listed:

- ANSI/ICEA S-94-649
- AEIC CS-8
- RUS U-1

## OPTIONS

- Cable can be triplexed or paralleled
- 15kV or 35kV available
- UL rated
- LCT shielded
- PVC jacket
- Semi-conductive jacket
- Conductors are available with 133% insulation levels





Phase Conductor		Neutral		Thickness Per Cond. (mils)			Nominal Diameter (mils)				Weight 1000 ft (lbs.)	Allowable Ampacities+	
Size (AWG or kcmil)	Stranding	No. of Wires	Size (AWG)	Approx. Insul.	Insul. Shield Min. Point	Approx Jkt.	Bare Phase Cond.	Over Insul.	Over Insul. Shield	Comp. Cable	Comp. Cable	Direct Burial	In Ducts
<b>ALUMINUM CONDUCTOR – 0.260” INSULATION – 100% INSULATION LEVEL</b>													
1	Solid	13	14*	260	30	50	289	850	930	1158	689	189*	134*
1	19	13	14*	260	30	50	322	880	960	1188	714	189*	134*
1/0	Solid	16	14*	260	30	50	325	885	965	1193	769	214*	152*
1/0	19	16	14*	260	30	50	362	920	1000	1228	799	214*	152*
2/0	19	20	14*	260	30	50	406	965	1045	1273	904	243*	173*
3/0	19	25	14*	260	30	50	456	1015	1095	1323	1031	278*	197*
4/0	19	20	12*	260	40	50	512	1070	1170	1432	1245	318*	225*
250	37	16	10*	260	40	50	558	1128	1228	1531	1472	353*	252*
350	37	18	14**	260	40	50	661	1230	1330	1558	1304	387**	320**
500	37	25	14**	260	40	80	789	1358	1458	1740	1683	466**	386**
750	61	24	12**	260	40	80	968	1548	1648	1963	2270	567**	475**
1000	61	20	10**	260	55	80	1117	1693	1823	2180	2879	648**	542**
<b>COPPER CONDUCTOR – 0.260” INSULATION – 100% INSULATION LEVEL</b>													
1	Solid	20	14*	260	30	50	289	850	930	1158	950	235*	168*
1	19	20	14*	260	30	50	322	880	960	1188	978	235*	168*
1/0	Solid	25	14*	260	30	50	325	885	965	1193	1099	268*	190*
1/0	19	25	14*	260	30	50	362	920	1000	1228	1134	268*	190*
2/0	19	20	12*	260	30	50	406	965	1045	1307	1358	307*	220*
3/0	19	25	12*	260	30	50	456	1015	1095	1357	1596	351*	250*
4/0	19	20	10*	260	40	50	512	1070	1170	1474	1962	402*	287*
250	37	24	10*	260	40	50	558	1128	1228	1531	2251	445*	317*
350	37	18	12**	260	40	50	661	1230	1330	1592	2217	487**	403**
500	37	26	12**	260	40	80	789	1358	1458	1773	2991	575**	475**
750	61	25	10**	260	40	80	968	1548	1648	2005	4235	650*	562*

+ Ampacities shown assume use of 100% load factor, 60 Hz current, 36" burial depth, 20°C ambient temperature, 90°C, conductor temperature, earth RHO 90, insulation and shield RHO 400

\* Full neutral construction (Ampacities assume - single phase circuit, one cable)

\*\* 1/3 neutral cable (Ampacities assume - three phase circuit, 3 cables triplexed, multi-point grounding per ICEA methods)

NOTE: Other voltages available upon request