1/C CU EPR CPE Medium Voltage Non-Shielded Jumper & Switchgear Cable

Single Conductor Tinned Copper EPDM Insulation with a CPE Jacket Non-Shielded Jumper Cable

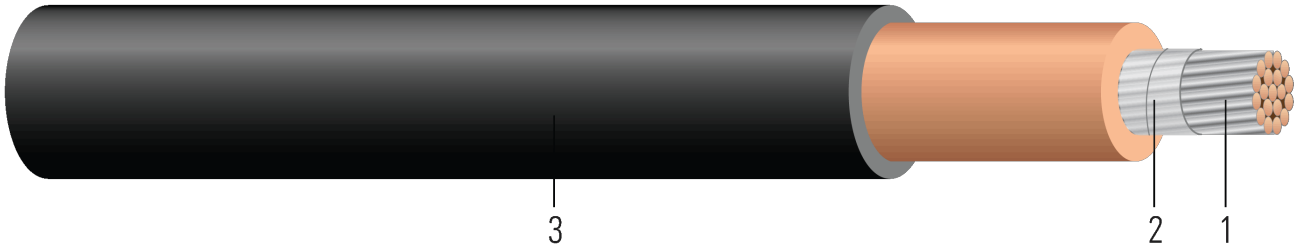

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Tinned copper class B or C
2. **Tape:** Binder tape for ease of insulation removal
3. **Insulation:** Heat, moisture, and ozone resistant Ethylene Propylene Diene Monomer (EPDM)
4. **Jacket:** Thermoplastic Chlorinated Polyethylene CPE jacket

APPLICATIONS AND FEATURES:

Southwire's medium voltage non-shielded cable is intended for use in substations installed on insulators and inside switchgear isolated from ground and where a non-shielded cable is desired. These cables are capable of operating continuously at a conductor temperature not in excess of 90°C. See Table 2 for installation guidelines.

This cable is rated up to 40KV and is not UL listed. See Table 2 for Installation Guidelines

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

SAMPLE PRINT LEGEND:

SOUTHWIRE® XXX SIZE STRANDED NON-SHIELDED 90°C DRY EPDM/CPE SEQUENTIAL MARKS NON-UL

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Conductor	Insul. Thickness	Jacket Thickness	Approx. OD	Approx. Weight	Jacket Color
	AWG/ Kcmil	No.	No.	inch	mil	mil	inch	lb/1000ft	
579783	2	1	19	0.282	175	80	0.827	469	BK
579782	4/0	1	19	0.512	175	80	1.044	1016	BK
585796	350	1	37	0.661	175	80	1.193	1512	BK

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance	Max Pull Tension	Max Pull Tension	Min Bending Radius	Allowable Ampacity At 60°C	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil	Ω/1000ft	Ω/1000ft	Ω/1000ft	lb	lb	inch	Amp	Amp	Amp
2	0.162	0.221	0.045	530	530	3.3	95	115	130
4/0	0.051	0.07	0.041	1692	1692	5.2	195	230	260
350	0.031	0.043	0.04	2800	2800	5.9	260	310	350

† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

† Ampacities have been adjusted for more than Three Current-Carrying Conductors.

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

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