CU Compressed 5/8kV TRXLPE Insulation 133/100% IL SIM-PVC Jacket. MV 105 - Sunlight Resistant - For Direct Burial

Type MV-105 Single Conductor Copper, 115 Mils Tree Retardant Cross Linked Polyethylene (TRXLPE) 133% Insulation Level, Tape Shield, SIMpull Polyvinyl Chloride (PVC) Jacket, Rated UL

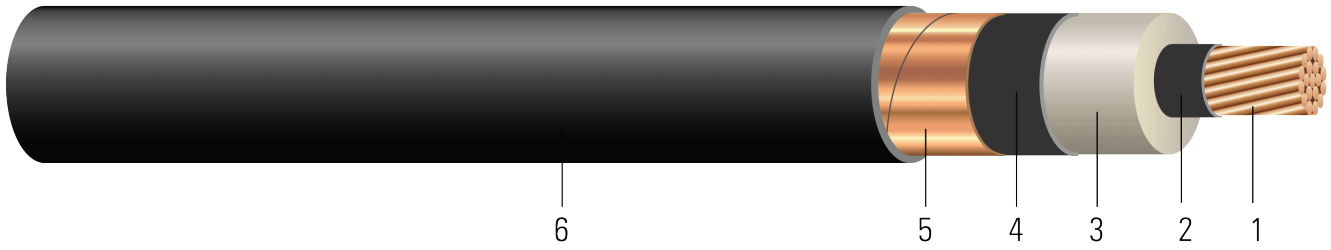


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (Tinned Copper per ASTM B33 optional)
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** 115 Mils Tree Retardant Cross Linked Polyethylene (TRXLPE) 133% Insulation Level,
4. **Insulation Shield:** Strippable semi-conducting cross-linked copolymer
5. **Copper Tape Shield:** Helically wrapped 5 mil copper tape with 25% overlap
6. **Overall Jacket:** Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 5KV cables are suited for use in wet and dry areas, conduits, ducts, troughs, direct burial when installed with a grounding conductor in close proximity that conforms to NEC section 311.36 and 250.4(A)(5), 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. Rated at -35°C for cold bend when UL listed. Rated at -25°C for cold bend and cold impact and marked with "LTDD" when CSA listed or dual UL/CSA listed. PVC jacket is made with SIM technology and has a coefficient of friction COF of 0.2. Cable 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
- UL 1072 Medium-Voltage Power Cables
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- ICEA S-97-682 Standard for Shielded Utility Cable Rated for 5 - 46kV
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV (Qualification Test Requirements)
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661

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UPDATED: March 19, 2024, 1:50 p.m.UTC REVISION: 1.000.001

SAMPLE PRINT LEGEND:

SOUTHWIRE SIMpull® POWER CABLE {UL} XX AWG CU 115 MILS XLP 5KV 133% (8kv 100%)INS LEVEL 25%TS MV-105 SUN. RES. -40C {NESC} PAT www.patentSW.com

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand Count	Diameter Over Conductor	Diameter Over Insulation	Diameter Over Insulation Shield	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Max Pull Tension	Min Bending Radius	Conduit Size*
	AWG/ Kcmil	No. of Strands	inch	inch	inch	mil	inch	lb/1000ft	lb/1000ft	lb	inch	inch
673734	2	7	0.282	0.551	0.611	55	0.761	259	445	530	9.1	2.5
673359	1	19	0.322	0.590	0.650	55	0.800	315	514	669	9.6	2.5
673356	1/0	19	0.361	0.630	0.690	80	0.870	385	623	844	10.4	2.5
673353	2/0	19	0.405	0.674	0.734	80	0.914	473	727	1064	10.9	3.0
673346	4/0	19	0.512	0.766	0.826	80	1.006	722	1011	1692	12.0	3.0
673342	250	37	0.558	0.818	0.878	80	1.058	844	1155	2000	12.6	3.0
674703	350	37	0.661	0.917	0.977	80	1.157	1160	1509	2800	13.8	3.5
673339	500	37	0.789	1.042	1.102	80	1.282	1632	2030	4000	15.3	4.0
TBA	750	61	0.968	1.254	1.314	80	1.494	2342	2883	6000	17.9	4.5
TBA	1000	61	1.117	1.403	1.463	80	1.643	3117	3725	8000	19.7	5.0

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Conduit size based on 3 phase 40% fill-factor without ground

Table 2 – Electrical and Engineering Data

Cond. Size	DC Resistance @ 25°C	AC Resistance @ 90°C	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Zero Sequence Impedance	Positive Sequence Impedance	Shield Short Circuit Current 6 Cycles	Allowable Ampacity In Duct 90/105°C	Allowable Ampacity In Air 90/105°C
AWG/ Kcmil	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
2	0.162	0.204	0.045	0.044	0.57 + j0.514	0.204 + j0.045	1920	145/155	190/215
1	0.128	0.162	0.041	0.042	0.531 + j0.491	0.162 + j0.042	2044	170/180	225/250
1/0	0.102	0.128	0.037	0.042	0.497 + j0.469	0.128 + j0.042	2165	195/210	260/290
2/0	0.081	0.102	0.034	0.040	0.473 + j0.447	0.102 + j0.041	2302	220/235	300/330
4/0	0.051	0.065	0.028	0.038	0.435 + j0.398	0.065 + j0.038	2633	290/310	400/445
250	0.043	0.056	0.027	0.037	0.424 + j0.376	0.056 + j0.037	2800	320/345	445/495
350	0.031	0.041	0.023	0.035	0.404 + j0.338	0.042 + j0.035	3120	385/415	550/615
500	0.022	0.030	0.020	0.033	0.383 + j0.297	0.031 + j0.033	3516	470/505	695/775
750	0.014	0.023	0.017	0.032	0.358 + j0.248	0.024 + j0.032	4102	585/630	900/1000
1000	0.011	0.019	0.015	0.031	0.339 + j0.217	0.02 + j0.031	4563	670/720	1075/1200

* Ampacities are based on:
* For Duct: Table 310.60(C)(77) Detail 1.
* For Free Air: Table 310.60(C)(69).
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.
* Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.
* Capacitive Reactance is between Phase-to-Shield.