CU Compressed 15kV TRXLPE Insulation 133% IL Black PVC Jacket. MV 105 - Sunlight Resistant - For Direct Burial

Type MV-105 Single Conductor Copper, 220 Mils Tree Retardant Cross Linked Polyethylene (TRXLPE) 133% Insulation Level, Tape Shield, SIMpull Polyvinyl Chloride (PVC) Jacket.

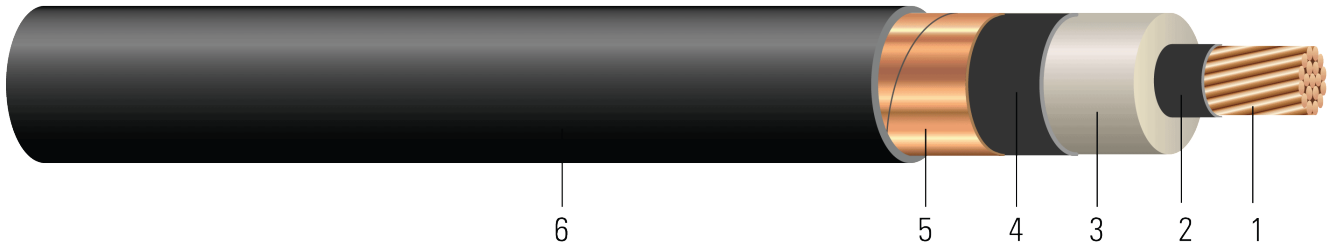


Image not to scale. See Table 1 for dimensions.

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:** 220 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:** SIMpull® Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 15KV cables are suited for use in wet and dry areas, conduits, ducts, troughs 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 -40°C for cold bend. 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

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE SIMpull® POWER CABLE {UL} XXX KCMIL CU 220 MILS XLP 15KV 133% INS LEVEL 25%TS MV-105 SUN. RES. {NESC} PAT www.patentSW.com

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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
673433	2	7	0.282	0.755	0.815	80	0.995	271	604	530	11.9	3.0
673432	1	19	0.322	0.800	0.860	80	1.040	328	683	669	12.4	3.0
673431	1/0	19	0.361	0.840	0.900	80	1.080	398	774	844	12.9	3.0
673430	2/0	19	0.405	0.884	0.944	80	1.124	487	885	1064	13.4	3.5
641179§	2/0	19	0.405	0.884	0.944	80	1.124	488	888	1064	13.4	3.5
673429	3/0	19	0.456	0.934	0.994	80	1.174	597	1021	1342	14.0	3.5
673428	4/0	19	0.512	0.990	1.050	80	1.230	737	1189	1692	14.7	3.5
673427	250	37	0.558	1.044	1.104	80	1.284	859	1342	2000	15.4	4.0
673425	350	37	0.661	1.147	1.207	80	1.387	1176	1711	2800	16.6	4.0
673415	500	37	0.789	1.252	1.312	80	1.492	1646	2237	4000	17.9	4.5
669891	750	61	0.968	1.464	1.524	110	1.764	2435	3239	6000	21.1	5.0
TBA	1000	61	1.117	1.613	1.673	110	1.913	3121	4143	8000	22.9	5.5
TBA	1250	91	1.250	1.750	1.810	110	2.050	3895	5011	10000	24.6	6.0

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

§ CSA listed

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	0.067	0.051	0.575 + j0.42	0.204 + j0.052	2571	155/165	195/215
1	0.128	0.162	0.061	0.049	0.532 + j0.401	0.162 + j0.049	2695	175/185	225/250
1/0	0.102	0.128	0.057	0.047	0.496 + j0.384	0.128 + j0.047	2816	200/215	260/290
2/0	0.081	0.102	0.053	0.045	0.468 + j0.367	0.103 + j0.045	2952	230/245	300/335
2/0	0.081	0.102	0.053	0.045	0.468 + j0.367	0.103 + j0.045	2952	230/245	300/335
3/0	0.064	0.081	0.048	0.043	0.444 + j0.347	0.082 + j0.044	3110	260/275	345/385
4/0	0.051	0.065	0.044	0.042	0.424 + j0.328	0.066 + j0.042	3284	295/315	400/445
250	0.043	0.056	0.042	0.041	0.41 + j0.31	0.057 + j0.041	3451	325/345	445/495
350	0.031	0.041	0.037	0.039	0.386 + j0.281	0.042 + j0.039	3770	390/415	550/610
500	0.022	0.030	0.032	0.037	0.363 + j0.249	0.031 + j0.037	4167	465/500	685/765
750	0.014	0.023	0.028	0.035	0.337 + j0.211	0.024 + j0.035	4752	565/610	885/990
1000	0.011	0.019	0.025	0.034	0.319 + j0.186	0.02 + j0.034	5214	640/690	1060/1185
1250	0.009	0.018	0.022	0.033	0.305 - j0.089	0.019 - j0.223	5638	715/770	1210/1350

* 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.

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* Sequence Impedance values are based on Rho Earth Resistivity: 100 Ohm-Meter/1000ft.
* Capacitive Reactance is between Phase-to-Shield.