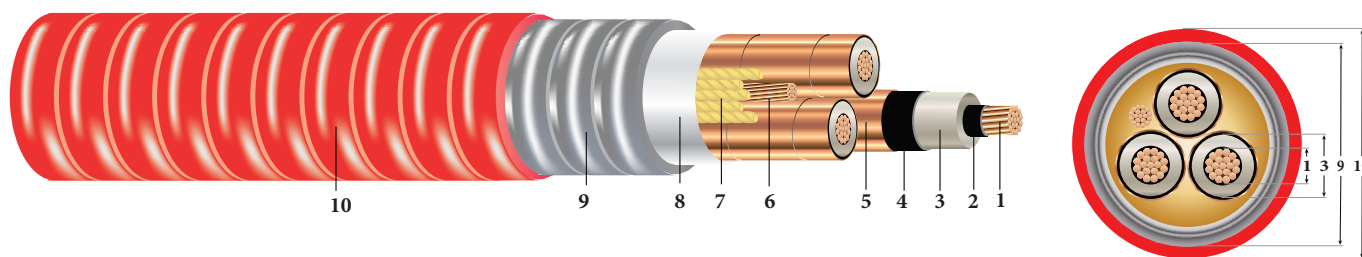


3/C CU 15KV 175 NL-EPR 100% TS AIA PVC MV-105

Type MV-105 Three Conductor Copper, 175 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% Insulation Level, Tape Shield, Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket



Images not to scale. See Table 1 for Dimensions

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Conductor Shield:** Semi-conducting cross-linked copolymer
3. **Insulation:** 175 Mils No Lead Ethylene Propylene Rubber (NL-EPR) 100% Insulation Level,
4. **Insulation Shield:** Stripable semi-conducting cross-linked copolymer
5. **Copper Tape Shield:** Helically wrapped 5 mil copper tape with 25% overlap
6. **Grounding Conductor:** 1 Class B compressed stranded bare copper ground per ASTM B3 and ASTM B8
7. **Filler:** Wax paper filler
8. **Binder:** Polypropylene tape
9. **Armor:** Aluminum Interlocked Armor (AIA)
10. **Overall Jacket:** Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 15KV cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, 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. For uses in Class I and II, Division 2 hazardous locations per NEC Article 501 and 502. Rated for 1000 lbs./FT maximum sidewall pressure.

SPECIFICATIONS:

- ASTM B3 Soft or annealed copper
- ASTM B8 Concentric-lay-standard copper
- UL 1072 - Medium Voltage Power Cables
- ICEA S-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable & ICEA S-97-682 5-46 KV Utility
- UL 1685/FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 -Flame Test (70,000) BTU/hr Vertical Tray Test
- AEIC CS-8 Specification for extruded dielectric shielded power cables rated for 5 through 46KV

SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTING BOLT] #P# (UL) 3/C [#AWG or #kcmil] CU 175 MILS NL-EPR AIA 15KV 100% INS LEVEL 25% TS MV-105 FOR CT USE SUN. RES. FOR DIRECT BURIAL FT4 YEAR (NESC) [SEQUENTIAL FEET MARKS]



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Southwire®

SPEC 46451_PSS DIVISION DATE: 09/21/2018 Rev:2.0.07C

Table 1 – Weights & Measurements

Stock Code	Cond. Size AWG	Diameter over			Ground No. x AWG	Dia. Over Armor (9) inches	Jacket Thickness mils	Approx. OD (10) inches	Approx. Weight lbs./MFT	Max Pull Tension lbs.	Min Bending Radius inches
		Cond. (1) inches	Insul. (3) inches	Insul. Shield inches							
TBA	2	0.283	0.670	0.730	1 x 6	1.842	60	1.962	2045	1593	13.7
TBA	1	0.322	0.709	0.769	1 x 4	2.026	60	2.146	2430	2009	15.0
556860	1/0	0.362	0.749	0.809	1 x 4	2.113	60	2.233	2732	2534	15.6
TBA	2/0	0.405	0.792	0.852	1 x 4	2.206	60	2.326	3094	3194	16.3
TBA	3/0	0.456	0.843	0.903	1 x 3	2.316	75	2.466	3650	4027	17.3
TBA	4/0	0.512	0.899	0.959	1 x 3	2.437	75	2.587	4205	5078	18.1
556902	250	0.558	0.954	1.014	1 x 3	2.555	75	2.705	4706	6000	18.9
TBA	350	0.661	1.057	1.117	1 x 2	2.778	75	2.928	5961	8400	20.5
556928	500	0.789	1.185	1.245	1 x 1	3.054	85	3.224	7827	12000	22.6
TBA	750	0.968	1.373	1.433	1 x 0	3.460	85	3.630	10773	18000	25.4

All dimensions are nominal and subject to normal manufacturing tolerances

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size AWG	Resistance		Reactance		Positive Sequence Impedance*	Zero Sequence Impedance*	Shield Short Circuit Current 6 Cycles Amps	Allowable Ampacities 90°C/105°C	
		DC @ 25°C Ω/MFT	AC @ 90°C Ω/MFT	X _C @ 60Hz MΩ*MFT	X _L @ 60Hz Ω/MFT				Directly Buried † Amps	In Air ‡ Amps
	AWG	Ω/MFT	Ω/MFT	MΩ*MFT	Ω/MFT	Ω/MFT	Ω/MFT	Amps	Amps	Amps
TBA	2	0.162	0.203	0.047	0.044	0.203 + j0.044	0.578 + j0.457	2407	185 / 200	165 / 185
TBA	1	0.129	0.161	0.043	0.042	0.162 + j0.042	0.537 + j0.437	2534	210 / 225	185 / 210
556860	1/0	0.102	0.128	0.039	0.041	0.128 + j0.041	0.503 + j0.418	2664	240 / 255	215 / 240
TBA	2/0	0.081	0.101	0.036	0.039	0.102 + j0.039	0.475 + j0.398	2804	270 / 290	245 / 275
TBA	3/0	0.064	0.081	0.033	0.038	0.081 + j0.038	0.452 + j0.377	2970	305 / 330	285 / 315
TBA	4/0	0.051	0.064	0.030	0.037	0.065 + j0.037	0.432 + j0.355	3152	350 / 375	325 / 360
556902	250	0.043	0.054	0.029	0.036	0.055 + j0.036	0.419 + j0.335	3331	380 / 410	360 / 400
TBA	350	0.031	0.039	0.025	0.034	0.040 + j0.034	0.395 + j0.302	3666	460 / 495	435 / 490
556928	500	0.022	0.028	0.022	0.033	0.029 + j0.032	0.372 + j0.266	4083	550 / 590	535 / 600
TBA	750	0.014	0.020	0.019	0.031	0.020 + j0.031	0.344 + j0.224	4695	665 / 720	670 / 745

* Calculations are based on 5 mil 25 % over lapping copper tape shield / Conductor temperature of 90°C / Shield temperature of 45°C / Earth resistivity of 100 ohms-meter

† Ampacities are based on TABLE 310.60(C)(83) of the 2014 National Electrical Code (20°C Ambient Earth Temperature, Thermal Resistance ROH of 90)

‡ Ampacities are based on TABLE 310.60(C)(71) of the 2014 National Electrical Code (40°C Ambient Air Temperature)

