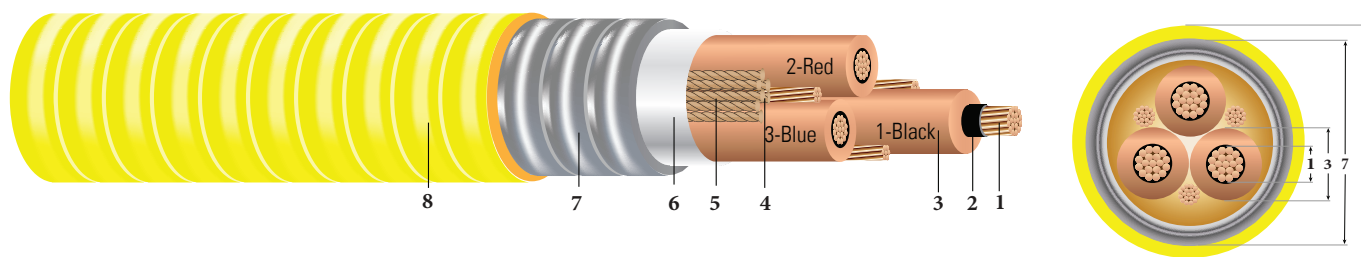


3/C CU 2.4KV 90 EPR ARMOR-X PVC MV-105

Type MV-105 Three Conductor Copper, 90 Mils Ethylene Propylene Rubber (EPR) Continuous Corrugated Welded Armor (Armor-X), Polyvinyl Chloride (PVC) Jacket



Images not to scale. See Table 1 for Dimensions

CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- Conductor Shield:** Semi-conducting cross-linked copolymer
- Insulation:** 90 Mils Ethylene Propylene Rubber (EPR)
- Grounding Conductor:** 3 Class B compressed stranded bare copper ground per ASTM B3 and ASTM B8
- Filler:** Wax paper filler
- Binder:** Polypropylene tape
- Armor:** Continuous Corrugated Welded Armor (Armor-X)
- Overall Jacket:** Polyvinyl Chloride (PVC)

APPLICATIONS AND FEATURES:

Southwire's 2.4KV ARMOR-X are armored cables 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, 130°C for emergency overload, 250°C for short circuit conditions, and -50°C for cold bend. For uses in Class I, II, and III, Division 1 and 2 hazardous locations per NEC Article 501, 502, and 503. Suitable for VFD application.

SPECIFICATIONS:

- ASTM B3 Soft or annealed copper
- ASTM B8 Concentric-lay-standard copper
- UL 1072 - Medium Voltage Power Cables
- ICEA S-96-659 (NEMA WC 7) 2001-5000 V Nonshielded Cables
- UL 1685/FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 -Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

SOUTHWIRE [SYMBOL - LIGHTING BOLT] #P# ARMOR-X (UL) 3/C [#AWG or #kcmil] CU 90 MILS EPR 2.4KV MV-105 FOR CT USE SUN. RES. FOR DIRECT BURIAL FT4 [-50°C] YEAR (NESC) [SEQUENTIAL FEET MARKS]



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | www.southwire.com

Copyright © 2017 Southwire Company, LLC. All Rights Reserved



Southwire[®]

SPEC 46027_PSS DIVISION DATE: 10/18/2017 Rev:2.0.05C

Table 1 – Weights & Measurements

Stock Code	Cond. Size AWG	Diameter over			Ground No. x AWG	Dia. Over Armor (7) inches	Jacket Thickness mils	Approx. OD (8) inches	Approx. Weight lbs./MFT	Max Pull Tension lbs.	Min Bending Radius inches
		Cond. (1) inches	Insul. (3) inches	Insul. Shield inches							
890615	2	0.283	0.493	-	3 x 10	1.430	50	1.530	1393	1593	10.7
554855	1	0.322	0.532	-	3 x 8	1.470	60	1.590	1680	2009	11.1
890616	1/0	0.362	0.572	-	3 x 8	1.540	60	1.660	1940	2534	11.6
890617	2/0	0.405	0.615	-	3 x 8	1.670	60	1.790	2275	3194	12.5
TBA	3/0	0.456	0.666	-	3 x 6	1.845	60	1.965	2796	4027	13.8
890618	4/0	0.512	0.722	-	3 x 6	2.040	60	2.160	3314	5078	15.1
890619	250	0.558	0.778	-	3 x 6	2.200	60	2.320	3776	6000	16.2
890620	350	0.661	0.881	-	3 x 6	2.290	75	2.440	4926	8400	17.1
890621	500	0.789	1.009	-	3 x 4	2.670	75	2.820	6741	12000	19.7
TBA	600	0.866	1.086	-	3 x 4	2.880	75	3.030	7821	14400	21.2
890622	750	0.968	1.188	-	3 x 4	3.000	85	3.170	9453	18000	22.2

All dimensions are nominal and subject to normal manufacturing tolerances

Table 2 – Electrical and Engineering Data

Stock Code	Cond. Size AWG	Resistance		Reactance		Shield Short Circuit Current 6 Cycles Amps	Allowable Ampacities 90°C/105°C	
		DC @ 25°C	AC @ 90°C	X _c @ 60Hz	X _L @ 60Hz		Directly Buried †	In Air ‡
		Ω/MFT	Ω/MFT	MΩ*MFT	Ω/MFT		Amps	Amps
890615	2	0.162	0.203	-	0.034	15089	180 / 190	140 / 154
554855	1	0.129	0.161	-	0.033	19029	200 / 215	160 / 180
890616	1/0	0.102	0.128	-	0.032	24011	230 / 245	185 / 205
890617	2/0	0.081	0.102	-	0.031	30264	260 / 280	215 / 240
TBA	3/0	0.064	0.081	-	0.030	38154	295 / 320	250 / 280
890618	4/0	0.051	0.064	-	0.030	48114	335 / 360	285 / 320
890619	250	0.043	0.055	-	0.029	56845	365 / 395	320 / 355
890620	350	0.031	0.039	-	0.028	79583	440 / 475	395 / 440
890621	500	0.022	0.028	-	0.027	113690	530 / 570	485 / 545
TBA	600	0.018	0.024	-	0.027	136428	575 / 620	535 / 600
890622	750	0.014	0.020	-	0.026	170535	650 / 700	615 / 685

† 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)

