

Single Conductor 5/8KV, Shielded, MV-105

133%/100%



APPLICATION:

5/8KV Shielded MV-105 cable is primarily used for power circuits in commercial, industrial, refinery and petro-chemical plants; utility power generation and substations. The cable can be installed in wet or dry applications and is for use in aerial, conduit, open tray, and underground duct installations. It can be used in direct burial if installed with a ground conductor in close proximity. The cable is approved for temperatures up to 105°C and voltages up to 5000 volts in ungrounded applications and 8000 volts for grounded applications.

CONDUCTORS:

- Class B annealed compact bare copper per ASTM

CONDUCTOR SHIELD:

- Extruded thermoset semi-conducting stress-control layer over conductor

INSULATION:

- High dielectric strength lead-free EPR insulation, contrasting in color to the black semi-conducting shield layers

INSULATION SHIELD:

- Extruded thermoset semi-conducting polymeric layer free stripping from insulation

METALLIC SHIELD:

- Helically applied 5 mil annealed copper tape over the insulation shield with an overlap of 25%

JACKET:

- Black low-friction, lead-free, flame-retardant, moisture and sunlight resistant polyvinyl chloride (PVC) jacket tightly applied over the copper tape

STANDARDS:

Meets or exceeds the following standards as applicable:

- UL 1072
- UL Listed as Type MV-105 for use in accordance with NEC
- AEIC CS8
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- IEEE 1202 Flame Test (70,000 BTU/hr)/CSA FT4
- EPA 40 CFR, Part 261 per TCLP method
- OSHA Acceptable
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked "Sunlight-Resistant FOR CT USE" in accordance with NEC

Part Number	Conductor Size	Conductor Diameter	Insulation Thickness	Insulation Diameter	Jacket Thickness	Overall Diameter	Cable Weight	Ampacity					
								Conduit in Air*		Underground Duct**		Tray***	
	AWG/kcmil	inches	mils	inches	inches	inches	lbs/kft	90°C	105°C	90°C	105°C	90°C	105°C
6-015KVSEPMV105	6	0.17	115	0.450	0.060	0.65	295	83	93	90	97	-	-
4-015KVSEPMV105	4	0.22	115	0.500	0.060	0.70	365	110	120	115	125	-	-
2-015KVSEPMV105	2	0.27	115	0.550	0.060	0.76	471	150	165	155	165	-	-

All values are nominal and subject to correction

* Ampacities are in accordance with Table 310.60(C)(73) of the NEC for triplexed or three single conductor copper cables in isolated conduit in air based on a conductor temperature of 90 °C (194 °F) or 105 °C (221 °F), temperature denoted in column header, and an ambient air temperature of 40 °C (104 °F).

** Ampacities are in accordance with Table 310.60(C)(77) of the NEC for triplexed or three single conductor copper cables in underground ducts (three conductors per duct), based on a conductor temperature of 90 °C (194 °F) or 105 °C (221 °F), temperature denoted in column header, and an ambient earth temperature of 20 °C (68 °F), electrical duct arrangement per Figure 310.60 Detail 1, 100% load factor, and earth thermal resistance (rho) of 90.

*** Ampacities are based on single conductor Type MV-105 sizes #1/0 AWG and larger in an uncovered tray in accordance with Section 392.80(B)(2) of the NEC at an ambient air temperature of 40 °C (104 °F); the ampacities are based on 75% of the values per Table 310.60(C)(69), operating temperature denoted in column header. For cable trays with unventilated covers for more than 6 feet, the ampacities shall not exceed 70% of the values per Table 310.60(C)(69).



1-800-945-5542
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	AWG/kcmil	inches	mils	inches	inches	inches	lbs/kft	90°C	105°C	90°C	105°C	90°C	105°C
1/0-015KVSEPMV105	1/0	0.34	115	0.620	0.060	0.82	623	195	215	200	215	195	220
2/0-015KVSEPMV105	2/0	0.38	115	0.660	0.060	0.86	728	225	255	230	245	225	250
4/0-015KVSEPMV105	4/0	0.48	115	0.760	0.080	1.00	1053	295	330	295	315	300	335
250-015KVSEPMV105	250	0.53	115	0.810	0.080	1.05	1199	330	365	325	345	335	370
350-015KVSEPMV105	350	0.62	115	0.910	0.080	1.14	1559	395	440	390	415	415	460
500-015KVSEPMV105	500	0.74	115	1.030	0.080	1.27	2088	480	535	465	500	515	575
750-015KVSEPMV105	750	0.91	115	1.210	0.080	1.45	2962	585	655	565	610	665	745
1000-015KVSEPMV105	1000	1.06	115	1.370	0.080	1.60	3815	675	755	640	690	795	890

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