

Aluminum Conductor 15KV, MV-105, 133%/100% EPR/PVC Copper Tape Shield

APPLICATION:

15KV 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 temperature up to 105°C and voltages up to 15000 volts.

CONDUCTORS:

- Stranded 1350 series aluminum, compact Class B stranding 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:

- 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 for leachable lead content 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	inches	inches	inches	inches	lbs/kft	90°C	105°C	90°C	105°C	90°C	105°C
2-0115KVALEPMV105	2	0.27	0.22	0.74	0.080	0.99	515	115	130	120	130	-	-
1/0-0115KVALEPMV105	1/0	0.34	0.22	0.81	0.080	1.06	598	150	170	155	165	150	170
2/0-0115KVALEPMV105	2/0	0.38	0.22	0.86	0.080	1.10	652	175	200	175	190	175	195

All values are nominal and subject to correction

* Ampacities are in accordance with Table 310.60(C)(74) of the NEC for triplexed or three single conductor aluminum 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)(78) of the NEC for triplexed or three single conductor aluminum 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)(70), 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)(70).



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								Conduit in Air*		Underground Duct**		Tray***	
								90°C	105°C	90°C	105°C	90°C	105°C
AWG/kcmil	inches	inches	inches	inches	inches	lbs/kft							
4/0-0115KVALEPMV105	4/0	0.48	0.22	0.96	0.080	1.21	807	230	260	230	245	235	265
250-0115KVALEPMV105	250	0.53	0.22	1.01	0.080	1.25	869	255	290	250	270	260	290
350-0115KVALEPMV105	350	0.62	0.22	1.11	0.080	1.35	1031	310	350	305	330	325	360
500-0115KVALEPMV105	500	0.74	0.22	1.23	0.080	1.47	1255	385	430	370	400	400	450
750-0115KVALEPMV105	750	0.91	0.22	1.41	0.080	1.65	1621	485	540	455	490	515	585
1000-0115KVSEPV-AL	1000	1.06	0.22	1.57	0.110	1.86	2068	565	640	525	565	620	705

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