MEDIUM VOLTAGE CABLE

Aluminum Conductor 15-25KV, MV-105
EPR/PVC Copper Tape Shield

APPLICATION:

15-25KV 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 25kV.

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 EPR insulation with or without lead, contrasting in color to the black semi-conducting shield layers, extruded over the conductor shield

INSULATION SHIELD:

- Extruded, strippable semi-conducting layer over the 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
- Optional water block available upon request

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 for leachable lead content per TCLP method
- ASTM B230, B400
- Sunlight Resistant, listed and marked
- NFPA 70 NEC
- OSHA Acceptable
- UL 1685 (Sizes 1/0 AWG and larger) UL Flame Exposure Test
- Sizes 1/0 AWG and larger are listed and marked “FOR CT USE”
- Temperature Rating: 105°C Continuous, 140°C Emergency Overload, 250°C Short Circuit

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
15kV 133% Insulation Level													
2-0115KVALEPMV105	2	0.268	0.220	0.76	0.080	1.01	580	115	130	120	130	-	-
1/0-0115KVALEPMV105	1/0	0.336	0.220	0.83	0.080	1.08	670	150	170	155	165	150	170
2/0-0115KVALEPMV105	2/0	0.376	0.220	0.87	0.080	1.12	728	175	200	175	190	175	195
4/0-0115KVALEPMV105	4/0	0.475	0.220	0.97	0.080	1.22	886	230	260	230	245	235	265
250-0115KVALEPMV105	250	0.530	0.220	1.01	0.080	1.25	869	255	290	250	270	260	290
350-0115KVALEPMV105	350	0.616	0.220	1.10	0.080	1.36	1149	310	350	305	330	325	360
500-0115KVALEPMV105	500	0.736	0.220	1.23	0.080	1.49	1366	385	430	370	400	400	450
750-0115KVALEPMV105	750	0.908	0.220	1.41	0.080	1.67	1745	485	540	455	490	515	585
1000-0115KVSEPVC-AL	1000	1.060	0.220	1.57	0.110	1.86	2068	565	640	525	565	620	705

#2180-05

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PRIORITY WIRE & CABLE, INC.

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								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
25kV 100% Insulation Level													
1/0-0125KVALEPMV105	1/0	0.336	0.260	0.94	0.080	1.20	738	150	170	155	165	150	170
4/0-0125KVALEPMV105	4/0	0.475	0.260	1.08	0.080	1.34	950	175	200	175	190	175	195
500-0125KVALEPMV105	500	0.736	0.260	1.34	0.080	1.60	1426	230	260	230	245	235	265

All values are nominal and subject to correction

** Ampacities are in accordance with Table 311.60(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 311.60(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 311.60 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 311.60(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 311.60(C)(69).*

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