

Three Conductor 5kV 133% / 8kV 100% Shielded MV-105



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 used in wet or dry locations when installed in accordance with NEC as well as cable trays, duct, open air and direct burial installations. The cable has excellent heat, moisture and sunlight resistance. The cable meets the cold bend test at -35°C and is approved for temperatures up to 105°C wet or dry.

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%
- Color ribbons in each phase for identification for sizes 2 AWG and above (standard: black-red-blue)

GROUND CONDUCTOR:

- Uninsulated bare stranded copper conductor may be in contact with metallic shielding tape

ASSEMBLY:

- Three phase identified shielded conductors cabled with fillers and grounding conductor (as specified), forming a firm and cylindrical cable core. A binder tape is applied over the core

JACKET:

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

STANDARDS:

Meets or exceeds the following standards as applicable:

- UL 1072 Listed sunlight resistant, direct burial and for CT use
- UL 1685 Flame Test (70,000 BTU/hr)
- UL Listed as Type MV-105 for use in accordance with NEC
- ICEA S-93-639/NEMA WC74
- ICEA S-97-682
- AEIC CS8
- EPA 40 CFR, Part 261
- OSHA Compliant



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Part Number	Conductor Size	Conductor Diameter	Insulation Diameter	Ground Wire	Jacket Thickness	Overall Diameter	Cable Weight lbs/kft	Ampacity		
	AWG/kcmil	inches	inches	AWG	inches	inches		105°C in Air*	105°C in Duct**	105°C in Tray***
								amps	amps	amps
5 kV 133% AND 8 kV 100% INS. LEVELS, TYPE MV-105, 115 MILS, 3 CONDUCTOR										
6-035KVSEPG	6	0.17	0.450	6	0.080	1.29	939	92	95	105
4-035KVSEPG	4	0.22	0.500	6	0.080	1.39	1158	120	125	135
2-035KVSEPG	2	0.27	0.563	6	0.080	1.51	1511	165	160	185
1/0-035KVSEPG	1/0	0.34	0.642	4	0.080	1.67	2030	215	210	240
2/0-035KVSEPG	2/0	0.38	0.685	4	0.080	1.82	2449	245	235	275
4/0-035KVSEPG	4/0	0.48	0.792	3	0.110	2.07	3438	320	305	360
250-035KVSEPG	250	0.53	0.838	2	0.110	2.15	3968	350	335	400
350-035KVSEPG	350	0.62	0.941	2	0.110	2.36	5009	430	400	490
500-035KVSEPG	500	0.74	1.050	1	0.110	2.64	6793	525	485	600
750-035KVSEPG	750	0.91	1.200	1/0	0.140	3.14	9833	635	585	745

All values are nominal and subject to correction

*Ampacities are in accordance with NEC table 310.60(C)(75), Type MV-105, 5001-35000 Volts, for tray or conduit in air.

**Ampacities are in accordance with NEC table 310.60(C)(79), Type MV-105, 5001-35000 Volts s, for underground duct, one circuit.

***Ampacities are in accordance with NEC table 310.60(C)(71), Type MV-105, 5001-35000 Volts, for in air (tray).

