



MV-105 15kV

UL 1072, IEEE 1202, ASTM B-496, AEIC CS8, ICEA S-93-639/NEMA WC 74, ICEA S-97-682

Three Conductor, Medium Voltage 15kV 133% Copper Conductor, Copper Tape Shielded Power Cable

APPLICATIONS

INDUSTRIAL AND COMMERCIAL

- Chemical Plants
- Petrochemical Plants
- Electrical Utility Plants
- Water Treatment Facilities
- Textile Mills
- Steel Mills
- Paper Mills
- Airports
- Shopping Malls
- Military Bases
- Medical Facilities
- Sports Stadiums

INSTALLATIONS

- In Cable Tray
- Conduit in Air
- Aerial with Messenger Supported
- Direct Buried
- Underground Duct
- Wet and Dry Locations

For uses in Class I, Division 2 hazardous locations per NEC Article 501



CONSTRUCTION

Conductor	Class B compacted stranded bare copper per ASTM B496
Conductor shield	Extruded layer of semi-conducting compound over the conductor per UL 1072
Insulation	Extruded layer of ethylene-propylene rubber (EPR) per UL 1072
Insulation shield	Extruded layer of semi-conducting compound applied by triple extrusion process over the insulation. Meets electrical and physical requirements of UL 1072
Metallic shield	5 mil bare copper tape applied helically with a 25% overlap
Grounding conductor	One uncoated copper grounding conductor per NEC/UL tables
Assembly	Three circuit conductors cabled with grounding conductor and fillers in the interstices, binder tape applied overall
Jacket	Extruded layer of black sunlight resistant Polyvinyl Chloride (PVC)

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Characteristic

Maximum conductor operating temperature:	+105°C
Maximum emergency overload temperature:	+140°C
Maximum short-circuit conductor temperature:	+250°C
Maximum sidewall pressure:	1000lbs/ft
Lowest installation temperature:	-40°C*
Minimum bending radius:	7xD (D-overall diameter of cable)

*At temperatures near or below 32°F (0°C), additional precautions must be taken to avoid cable damage - see our Guidelines Cable Installation for further information.

Approvals

(UL) E231073

15kV 133% Insulation Level

Conductor Size		Diameter Over Conductor	Grounding Conductor		Insulation Thickness	Diameter over Insulation	Min. Point Jacket Thickness	Approx. Overall Diameter Cable	Approx Net. Weight
AWG/MCM	mm ²	inches	No. X	AWG	mils	inches	mils	inches	lbs/1000ft
2	33.6	0.27	1	6	220	0.75	100	2.06	2360
1/0	53.5	0.34	1	4		0.82		2.21	2990
2/0	67.4	0.38	1	4		0.86		2.29	3300
4/0	107	0.48	1	3		0.96		2.51	4320
250	127	0.52	1	2		1.02	125	2.64	4910
350	177	0.62	1	2		1.12		2.90	6280
500	253	0.73	1	1		1.23		3.14	8050

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Conductor Size		Max. Pull Tension	Min. Bending Radius	Ampacities**		
				Isolated in Air	Direct Buried	Underground Duct
AWG/MCM	mm ²	lbs	inches	A		
2	33.6	1590	14.4	185	200	160
1/0	53.5	2540	15.4	240	255	210
2/0	67.4	3190	16.1	275	290	235
4/0	107	5080	17.5	360	375	305
250	127	6000	18.5	400	410	335
350	177	8400	20.3	490	495	400
500	253	10000	22.0	600	590	485

** Ampacities „Underground Duct“ per NEC 2023 Table 315.60 (C) (13). Ampacities „Isolated in Air“ per NEC 2023 Table 315.60 (C) (5).
Ampacities „Direct Buried“ per NEC 2023 Table 315.60 (C) (17)

Sample print legend:

TF CABLE (VOLTAGE) 3C (SIZE) COMPACT CU TYPE MV-105 SHIELDED COPPER EPR 133% INS LEVEL 1x[#AWG] CU GRD SUN RES FOR CT USE DIRECT BURIAL (UL) E231073 [YEAR] [SEQUENTIAL FOOTAGE MARKINGS]