



# MV-105 5kV & 15kV

**UL 1072, ASTM B-8**

Medium Voltage 5kV & 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



## CONSTRUCTION

Conductor	Class B compressed annealed uncoated copper
Conductor shield	Extruded layer of semiconducting compound applied under simultaneous triple extrusion process
Insulation	Extruded layer of 105°C rated Ethylene Propylene Rubber (EPR)
Insulation shield	Extruded layer of semiconducting compound applied by triple extrusion process
Metallic shield	5 mil bare copper tape applied helically with a 25% overlap.
Jacket	Extruded layer of black sunlight resistant Polyvinyl Chloride (PVC)

## Characteristic

Maximum conductor operating temperature:	+105°C
Maximum short-circuit conductor temperature:	+250°C
Lowest ambient temperature for fixed installation	-40°C
Lowest installation temperature	-5°C
Minimum bending radius	12 × D (D-overall diameter of cable)

- Flame retardant PVC jacket
- Listed for CT use for sizes I/O AWG and larger

# Approvals

**UL:**

E231073 SUN RES FOR CT USE DIRECT BURIAL

## 5kV 133%/8kV 100% INSULATION LEVEL

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-5kV2-1	2 AWG	115	0.55	60	0.78	450	215	225	155
MV105-5kV1-1	1 AWG		0.60		0.80	520	250	260	180
MV105-5kV1/0-1	1/0 AWG		0.65		0.85	610	290	295	210
MV105-5kV2/0-1	2/0 AWG		0.69	0.95	700	330	335	235	
MV105-5kV3/0-1	3/0 AWG		0.75	1.00	870	385	380	270	
MV105-5kV4/0-1	4/0 AWG		0.80	1.05	1020	445	435	310	
MV105-5kV250-1	250 MCM		80	0.85	1.10	1130	495	475	345
MV105-5kV350-1	350 MCM			0.95	1.20	1510	615	575	410
MV105-5kV500-1	500 MCM			1.10	1.35	2075	775	700	505
MV105-5kV750-1	750 MCM			1.30	1.55	2890	1000	865	630
MV105-5kV1000-1	1000 MCM			1.40	1.70	3715	1200	1005	720

## 15kV 133% INSULATION LEVEL

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-15kV2-1	2 AWG	220	0.75	80	1.03	620	215	225	165
MV105-15kV1-1	1 AWG		0.79		1.05	710	250	260	185
MV105-15kV1/0-1	1/0 AWG		0.82		1.09	790	290	295	215
MV105-15kV2/0-1	2/0 AWG		0.86	1.13	905	335	335	245	
MV105-15kV3/0-1	3/0 AWG		0.92	1.17	1040	385	380	275	
MV105-15kV4/0-1	4/0 AWG		0.97	1.21	1210	445	435	315	
MV105-15kV250-1	250 MCM		100	1.02	1.30	1390	495	475	345
MV105-15kV350-1	350 MCM			1.12	1.40	1750	610	575	415
MV105-15kV500-1	500 MCM			1.26	1.52	2200	765	700	500

Part Number	Conductor Size	Insulation Thickness	Diameter over Insulation	Jacket Thickness	Outer Diameter	Cable Weight	Ampacities *		
							Isolated in Air	Direct Buried	Underground Duct
	AWG / MCM	mils	inches	mils	inches	lbs /kft	A		
MV105-15kV750-1	750 MCM		1.41		1.77	3190	990	865	610
MV-105-15kV1000-1	1000 MCM	220	1.58	110	1.95	4150	1185	1005	690

\* Ampacities „Underground Duct“ per NEC 2011 Table 310.60 (C) (78). Ampacities „Isolated in Air“ per NEC 2011 Table 310.60 (C) (70). Ampacities „Direct Buried“ per NEC 2011 Table 310.60 (C) (82).

## Standard print legend

TF Cable (VOLTAGE) (SIZE) TYPE MV-105 SHIELDED COPPER EPR 133% INS LEVEL SUN RES FOR CT USE  
DIRECT BURIAL UL E231073

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