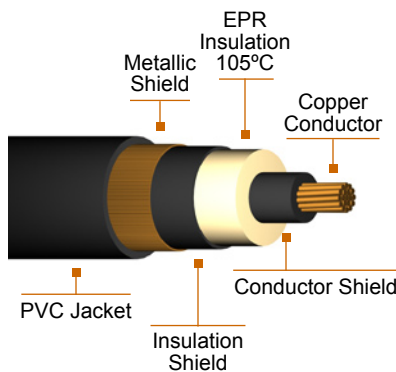


MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket



Detail Description or Construction

Conductor

Compacted copper conductor class B

Conductor Shield

Thermosetting extruded semi-conducting compound

Insulation

100% or 133% Ethylene propylene rubber (EPR) 105°C extruded in a real triple extrusion process

Insulation shield

Thermosetting extruded semi-conducting compound, adequate adhesion to the insulation and easy of stripping

Metallic shield

Uncoated helically applied copper wires or copper tape, as requested

Jacket

Extruded black sunlight resistant, flame retardant, oils resistant PVC jacket with excellent mechanical properties

Packaging

Non-returnable wooden drums

Options

- Compressed conductors
- Filled strand
- Copper tapes metallic shield
- CT USE applications
- Water blocking tapes

Application

Primary power and distribution circuits in industrial, commercial and power circuit generating plants.

Single conductors cables, 1/0 AWG and larger, can be marked for CT Use to be installed in ladder cable tray, according NEC Article 318.

MV-105 cable with water blocking conductor and water blocking tapes, are specially designed to be installed in high humid installations.



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Standards / Testing Specifications

- MV-105 meets or exceeds the requirements of ICEA S-93-639, AEIC CS6, UL 1072, Articles 310 and 326 of National Electrical Code.

Marking

Sunlight resistant and for CT Use

Installation

MV-105 cables may be installed in wet or dry locations at maximum operating temperature of 105°C on the conductor for normal operation; 140°C for emergency and 250°C for short circuit conditions. Cables may be installed indoor and outdoor, exposed to sunlight, in raceway, conduit, duct or aerially supported by a messenger and directly buried according NEC 250-51.

Packing

Non Returnable wooden reel with 300 m standard lengths or according reel capacity and minimum bending radius



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 1. CABLE TYPE MV105 5 kV 100% and 133% I.L.

Conductor Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Jacket Thickness	Total OD	Total Weight	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
AWG / MCM	mm	mm	mm	mm	kg / km		
6	4.31	2.29	1.52	16.15	406	92	120
4	5.58	2.29	1.52	17.29	497	120	160
2	6.86	2.29	1.52	18.71	637	155	215
1	7.87	2.29	1.52	19.51	734	180	250
1/0	8.89	2.29	2.03	20.47	849	210	290
2/0	9.91	2.29	2.03	21.50	999	235	330
3/0	10.92	2.29	2.03	23.80	1,236	270	385
4/0	12.45	2.29	2.03	25.14	1,463	310	445
250	13.46	2.29	2.03	26.31	1,667	345	495
350	16.00	2.29	2.03	29.18	2,196	415	615
500	19.30	2.29	2.03	32.84	2,982	505	775
750	24.64	2.29	2.03	38.52	4,274	630	1,000
1000	28.45	2.29	2.79	42.33	5,496	720	1,200

The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 2. CABLE TYPE MV105 8 kV 100% I.L.

Conductor Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Jacket Thickness	Total OD	Total Weight	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
AWG / MCM	mm	mm	mm	mm	kg / km		
6	4.31	2.92	1.52	17.48	440	97	125
4	5.58	2.92	1.52	18.62	534	125	165
2	6.86	2.92	1.52	20.04	676	165	215
1	7.87	2.92	1.52	20.84	775	185	250
1/0	8.89	2.92	1.52	21.80	891	215	290
2/0	9.91	2.92	2.03	23.91	1,099	245	335
3/0	10.92	2.92	2.03	25.13	1,286	275	385
4/0	12.45	2.92	2.03	26.47	1,516	315	445
250	13.46	2.92	2.03	27.64	1,722	345	495
350	16.00	2.92	2.03	30.51	2,257	415	610
500	19.30	2.92	2.03	34.17	3,050	500	765
750	24.64	2.92	2.03	39.85	4,352	610	990
1000	28.45	2.92	2.79	43.66	5,582	690	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 3. CABLE TYPE MV105 8 kV 133% I.L.

Conductor Size AWG / MCM	Conductor Diameter mm	Nominal Insulation Thickness mm	Nominal Jacket Thickness mm	Total OD mm	Total Weight kg / km	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
6	4.31	3.56	1.52	18.84	477	97	125
4	5.58	3.56	1.52	19.98	573	125	165
2	6.86	3.56	1.52	21.40	718	165	215
1	7.87	3.56	2.03	23.27	872	185	250
1/0	8.89	3.56	2.03	24.23	993	215	290
2/0	9.91	3.56	2.03	25.26	1,149	245	335
3/0	10.92	3.56	2.03	26.48	1,339	275	385
4/0	12.45	3.56	2.03	27.82	1,572	315	445
250	13.46	3.56	2.03	28.99	1,780	345	495
350	16.00	3.56	2.03	32.41	2,352	415	610
500	19.30	3.56	2.03	35.52	3,121	500	765
750	24.64	3.56	2.03	41.20	4,435	610	990
1000	28.45	3.56	2.79	46.62	5,833	690	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 4. CABLE TYPE MV105 15 kV 100% I.L.

Conductor Size AWG / MCM	Conductor Diameter mm	Nominal Insulation Thickness mm	Nominal Jacket Thickness mm	Total OD mm	Total Weight kg / km	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
2	6.86	4.45	2.03	24.35	837	165	215
1	7.87	4.45	2.03	25.15	942	185	250
1/0	8.89	4.45	2.03	26.11	1,065	215	290
2/0	9.91	4.45	2.03	27.14	1,225	245	335
3/0	10.92	4.45	2.03	28.36	1,418	275	385
4/0	12.45	4.45	2.03	29.7	1,654	315	445
250	13.46	4.45	2.03	30.87	1,865	345	495
350	16.00	4.45	2.03	34.29	2,447	415	610
500	19.30	4.45	2.03	37.40	3,224	500	765
750	24.64	4.45	2.79	44.19	4,554	610	990
1000	28.45	4.45	2.79	44.96	6,015	960	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 5. CABLE TYPE MV105 15 kV 133% I.L.

Conductor Size AWG / MCM	Conductor Diameter mm	Nominal Insulation Thickness mm	Nominal Jacket Thickness mm	Total OD mm	Total Weight kg / km	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
2	6.86	5.46	2.03	26.49	920	165	215
1	7.87	5.46	2.03	27.29	1,027	185	250
1/0	8.89	5.46	2.03	28.25	1,154	215	290
2/0	9.91	5.46	2.03	29.28	1,316	245	335
3/0	10.92	5.46	2.03	30.50	1,513	275	385
4/0	12.45	5.46	2.03	32.39	2,784	315	445
250	13.46	5.46	2.03	33.56	2,001	345	495
350	16.00	5.46	2.03	36.43	2,560	415	610
500	19.30	5.46	2.03	39.54	3,348	500	765
750	24.64	5.46	2.79	46.82	4,857	610	990
1000	28.45	5.46	2.79	51.16	6,177	690	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 6. CABLE TYPE MV105 25 kV 100% I.L.

Conductor Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Jacket Thickness	Total OD	Total Weight	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
AWG / MCM	mm	mm	mm	mm	kg / km		
1	7.87	6.6	2.03	30.99	1,131	185	250
1/0	8.89	6.6	2.03	32.26	1,261	215	290
2/0	9.91	6.6	2.03	33.53	1,427	245	335
3/0	10.92	6.6	2.03	35.05	1,660	275	385
4/0	12.45	6.6	2.03	36.57	1,907	315	445
250	13.46	6.6	2.03	38.10	2,127	345	495
350	16.00	6.6	2.03	40.39	2,697	415	610
500	19.30	6.6	2.03	43.18	3,495	500	765
750	24.64	6.6	2.79	52.07	5,079	610	990
1000	28.45	6.6	2.79	56.89	6,368	690	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 7. CABLE TYPE MV105 25 kV 133% I.L.

Conductor Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Jacket Thickness	Total OD	Total Weight	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
AWG / MCM	mm	mm	mm	mm	kg / km		
1	7.87	8.76	2.03	34.80	1,385	185	250
1/0	8.89	8.76	2.03	35.76	1,523	215	290
2/0	9.91	8.76	2.03	36.79	1,696	245	335
3/0	10.92	8.76	2.03	38.01	1,906	275	385
4/0	12.45	8.76	2.03	39.35	2,162	315	445
250	13.46	8.76	2.03	40.52	2,390	345	495
350	16.00	8.76	2.03	43.40	2,978	415	610
500	19.30	8.76	2.03	48.64	4,009	500	765
750	24.64	8.76	2.79	54.32	5,439	610	990
1000	28.45	8.76	2.79	58.13	6,753	690	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.



MV - 105 Power Cable

5 kV up to 35 kV Copper Conductor, EPR Insulation, Metallic Shield and Outer PVC Jacket

TABLE 8. CABLE TYPE MV105 35 kV 100% I.L.

Conductor Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Jacket Thickness	Total OD	Total Weight	Ampacity (A)	
						Buried Duct 20°C Amb. Temp	Free Air 40°C Amb. Temp
AWG / MCM	mm	mm	mm	mm	kg / km		
1/0	8.89	8.76	2.03	35.76	1,523	215	290
2/0	9.91	8.76	2.03	36.79	1,696	245	335
3/0	10.92	8.76	2.03	38.01	1,906	275	385
4/0	12.45	8.76	2.03	39.35	2,162	315	445
250	13.46	8.76	2.03	40.52	2,390	345	495
350	16.00	8.76	2.79	43.40	2,978	415	610
500	19.30	8.76	2.79	48.64	4,009	500	765
750	24.64	8.76	2.79	54.32	5,439	610	990
1000	28.45	8.76	2.79	58.13	6,753	690	1185

1. Ampacities based on NEC Standard conductor temperature 105°C.
The data listed above is approximate and subject to normal manufacturing tolerances.