Application

MV 105 Cable is well-suited for primary power and distribution circuits in commercial, industrial, and power-producing plants. It is designed to meet the demanding requirements of these environments.
Specifically:
According to NEC Article 318, single conductor cables can be designated for CT Use and installed in a ladder cable tray if they are 1/0 AWG or larger.
Specially engineered MV-105 cable variants, featuring water-blocking conductors and water-blocking adhesives, are utilized in high-humidity installations to ensure reliable performance.

Construction

Conductor: Class B copper conductor per ASTM B3 or aluminum alloy 1350, Class A or B per ASTM B 231.
Conductor Shield: Insulation-bonding thermosetting extruded semiconducting cover that peels freely from the conductor.
Insulation: Ethylene Propylene Rubber (EPR).
Insulation Shield: Extruded thermosetting semiconducting shield with regulated adherence to the insulation, ensuring both electrical integrity and ease of peeling.
Metallic Shield: Helically applied flat, uncoated copper tape, 5 mil thick, with a minimum 20% overlap. Mylar ribbon placed longitudinally under the copper tape shield for phase identification (Red, Blue, and None phases).
Grounding Conductors: Three bare stranded copper conductors, one in each interstice.
Fillers: Non-hygroscopic fillers forming a firm and cylindrical cable core.
Binder Tape: Poly glass tape.
Jacket: Black, sunlight-resistant, flame-retardant PVC jacket tightly applied over the binder tape for added protection.

Specification

-AEIC CS8, Specifications for Shielded Power Cable, 5-46kV
-ICEA S-93-639, 5-46 kV Shielded Power Cable
-ICEA S-97-682, Utility Shielded Power Cable Rated 5-46 kV
-UL 1072 MV-105
-IEEE- IEEE 383 Flame Test
-For 105°C continuous, 140°C emergency, 250°C short-circuit operation.
-CSA Standard C68.5-07 File # 257759 Primary Shielded and Concentric Neutral Cable for Distribution

Eastful Cable Lab

We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.
CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rhineland and CCS.

National Green Factory

Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.
We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

Technical Parameters

8kV CU 100% MV-105 Cable Specification											
Size	Insulation Thickness	No. of Ground Wires	Size of Ground Wires	Conductor Dia.	Insulation Dia.	Insulation Shield Dia.	Overall Jacket Dia.	Approx. Weight	Min. Bending Radius	Ampacity 90°C in Duct	Ampacity 90°C in Air
AWG/kcmil	mils	No.	mils	inch	inch	inch	inch	lb/MFT	inch	A	A
4	115	3	10	0.226	0.5	0.56	1.42	1193	10	115	120
2	115	3	10	0.284	0.56	0.62	1.55	1515	11	150	165
1	115	3	8	0.324	0.6	0.66	1.64	1789	12	170	185
1/0	115	3	8	0.364	0.64	0.7	1.78	2158	13	195	215
2/0	115	3	8	0.408	0.69	0.74	1.88	2493	14	220	245
3/0	115	3	7	0.458	0.74	0.79	1.99	2941	14	250	285
4/0	115	3	7	0.515	0.79	0.85	2.11	3453	15	285	325
250	115	3	7	0.561	0.85	0.9	2.22	3903	16	310	360
350	115	3	6	0.664	0.95	1	2.44	5072	18	375	435
500	115	3	5	0.794	1.08	1.15	2.76	6839	20	450	535
750	115	3	4	0.974	1.27	1.34	3.22	9829	23	545	670
1000	115	3	4	1.124	1.42	1.49	3.55	12504	25	615	770

8kV CU 133% MV-105 Cable Specification											
Size	Insulation Thickness	No. of Ground Wires	Size of Ground Wires	Conductor Dia.	Insulation Dia.	Insulation Shield Dia.	Overall Jacket Dia.	Approx. Weight	Min. Bending Radius	Ampacity 90°C in Duct	Ampacity 90°C in Air
AWG/kcmil	mils	No.	mils	inch	inch	inch	inch	lb/MFT	inch	A	A
2	140	3	10	0.284	0.61	0.67	1.66	1623	12	150	165
1	140	3	8	0.324	0.65	0.71	1.8	2002	13	170	185
1/0	140	3	8	0.364	0.69	0.75	1.89	2282	14	195	215
2/0	140	3	8	0.408	0.74	0.79	1.99	2622	14	220	245
3/0	140	3	7	0.458	0.79	0.84	2.09	3076	15	250	285
4/0	140	3	7	0.515	0.84	0.9	2.22	3594	16	285	325
250	140	3	7	0.561	0.9	0.95	2.33	4051	17	310	360
350	140	3	6	0.664	1	1.05	2.55	5232	18	375	435
500	140	3	5	0.794	1.13	1.2	2.93	7180	21	450	535
750	140	3	4	0.974	1.32	1.39	3.33	10034	24	545	670
1000	140	3	4	1.124	1.47	1.54	3.66	12728	26	615	770

Technical Parameters

AL 100% MV 105 5kV Cable Specification											
Size	Insulation Thickness	No. of Ground Wires	Size of Ground Wires	Conductor Dia.	Insulation Dia.	Insulation Shield Dia.	Overall Jacket Dia.	Approx. Weight	Min. Bending Radius	Ampacity 90°C in Duct	Ampacity 90°C in Air
AWG/kcmil	mils	No.	mils	inch	inch	inch	inch	lb/MFT	inch	A	A
4	90	3	10	0.226	0.45	0.51	1.32	833	10	80	81
2	90	3	10	0.284	0.51	0.57	1.44	993	11	105	110
1	90	3	10	0.324	0.55	0.61	1.53	1093	11	120	125
1/0	90	3	10	0.364	0.59	0.65	1.61	1218	12	140	145
2/0	90	3	8	0.408	0.64	0.69	1.77	1522	13	160	170
3/0	90	3	8	0.458	0.69	0.74	1.88	1705	14	180	195
4/0	90	3	8	0.515	0.74	0.8	2	1930	15	205	225
250	90	3	8	0.561	0.8	0.85	2.11	2131	15	230	250
350	90	3	7	0.664	0.9	0.95	2.34	2643	17	280	310
500	90	3	6	0.794	1.03	1.1	2.65	3424	19	340	385
750	90	3	5	0.974	1.22	1.29	3.12	4755	22	425	495
1000	90	3	4	1.124	1.37	1.44	3.44	5886	25	495	585

AL 133% MV 105 5kV Cable Specification											
Size	Insulation Thickness	No. of Ground Wires	Size of Ground Wires	Conductor Dia.	Insulation Dia.	Insulation Shield Dia.	Overall Jacket Dia.	Approx. Weight	Min. Bending Radius	Ampacity 90°C in Duct	Ampacity 90°C in Air
AWG/kcmil	mils	No.	mils	inch	inch	inch	inch	lb/MFT	inch	A	A
4	115	3	10	0.226	0.5	0.56	1.42	929	10	80	81
2	115	3	10	0.284	0.56	0.62	1.55	1095	11	105	110
1	115	3	10	0.324	0.6	0.66	1.64	1200	12	120	125
1/0	115	3	10	0.364	0.64	0.7	1.78	1429	13	140	145
2/0	115	3	8	0.408	0.69	0.74	1.88	1645	14	160	170
3/0	115	3	8	0.458	0.74	0.79	1.99	1834	14	180	195
4/0	115	3	8	0.515	0.79	0.85	2.11	2066	15	205	225
250	115	3	8	0.561	0.85	0.9	2.22	2273	16	230	250
350	115	3	7	0.664	0.95	1	2.44	2797	18	280	310
500	115	3	6	0.794	1.08	1.15	2.76	3595	20	340	385
750	115	3	5	0.974	1.27	1.34	3.22	4955	23	425	495
1000	115	3	4	1.124	1.42	1.49	3.55	6103	25	495	585