Application

MV 105 25kV Cable, whether made of copper or aluminum, is essential for transmitting and distributing electrical energy within the power system. Serving as a reliable link between the national high-voltage grid and end-user facilities, including residential, commercial, and industrial structures, these cables ensure seamless connectivity. Used in transmission lines, substations, distribution networks, industrial plants, commercial buildings, and residential areas, MV 105 cables play a pivotal role in powering our modern world and facilitating the integration of renewable energy sources like solar and wind power into the main grid.

Construction

Conductor: The cable's core can be made of either compressed copper or aluminum alloy 1350, both ensuring efficient electrical conductivity. Copper is compliant with ASTM B3 standards, while aluminum adheres to ASTM B231.
Conductor Shield: A protective layer is applied over the conductor to manage stress and ensure safety. It's designed for easy removal during installation.
Insulation: The cable is insulated with Ethylene Propylene Rubber (EPR), known for its durability and electrical performance.
Insulation Shield: Another shield, applied over the insulation, balances electrical integrity with ease of installation.
Metallic Shield: A copper tape is helically wrapped around the cable for added protection and identification purposes.
Grounding Conductors: Bare copper conductors are included for grounding, ensuring safety and proper electrical function.
Fillers: Non-hygroscopic fillers are used to maintain the cable's cylindrical shape and stability.
Binder Tape: A tape is applied to keep everything in place and maintain the cable's structural integrity.
Jacket: Finally, a black PVC jacket is applied for protection against environmental elements and to ensure the cable's longevity.

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

25KV 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
1	260	3	8	0.324	0.89	0.95	2.32	2657	17	170	185
1/0	260	3	8	0.364	0.93	0.99	2.41	2960	17	195	215
2/0	260	3	8	0.408	0.98	1.03	2.5	3324	18	220	245
3/0	260	3	7	0.458	1.03	1.1	2.65	3868	19	250	285
4/0	260	3	7	0.515	1.08	1.16	2.77	4421	20	285	325
250	260	3	7	0.561	1.14	1.21	2.94	5073	21	310	360
350	260	3	6	0.664	1.24	1.31	3.16	6330	23	375	435
500	260	3	5	0.794	1.37	1.44	3.45	8144	25	450	535
750	260	3	4	0.974	1.56	1.64	3.89	11193	28	545	670
1000	260	3	4	1.124	1.71	1.79	4.21	13978	30	615	770

25KV 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
1/0	345	3	8	0.364	1.11	1.18	2.88	3761	21	195	215
2/0	345	3	8	0.408	1.15	1.22	2.97	4151	21	220	245
3/0	345	3	7	0.458	1.2	1.27	3.08	4662	22	250	285
4/0	345	3	7	0.515	1.26	1.33	3.21	5245	23	285	325
250	345	3	7	0.561	1.31	1.38	3.32	5762	24	310	360
350	345	3	6	0.664	1.41	1.48	3.54	7060	25	375	435
500	345	3	5	0.794	1.54	1.63	3.86	9015	27	450	535

Technical Parameters

25KV AL 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
1	260	3	10	0.324	0.89	0.95	2.32	2068	17	135	145
1/0	260	3	10	0.364	0.93	0.99	2.41	2230	17	150	170
2/0	260	3	8	0.408	0.98	1.03	2.5	2476	18	170	190
3/0	260	3	8	0.458	1.03	1.1	2.65	2761	19	195	220
4/0	260	3	8	0.515	1.08	1.16	2.77	3034	20	220	255
250	260	3	8	0.561	1.14	1.21	2.94	3444	21	245	280
350	260	3	7	0.664	1.24	1.31	3.16	4055	23	295	345
500	260	3	6	0.794	1.37	1.44	3.45	4900	25	355	425
750	260	3	5	0.974	1.56	1.64	3.89	6319	28	440	540
1000	260	3	4	1.124	1.71	1.79	4.21	7577	30	510	635

25KV AL 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
1/0	345	3	10	0.364	1.11	1.18	2.88	3031	21	150	170
2/0	345	3	8	0.408	1.15	1.22	2.97	3303	21	170	190
3/0	345	3	8	0.458	1.2	1.27	3.08	3555	22	195	220
4/0	345	3	8	0.515	1.26	1.33	3.21	3859	23	220	255
250	345	3	8	0.561	1.31	1.38	3.32	4132	24	245	280
350	345	3	7	0.664	1.41	1.48	3.54	4785	25	295	345
500	345	3	6	0.794	1.54	1.63	3.86	5771	27	355	425