



## • Application

MV 105 5kV Cable provides a cost-effective, durable, and dependable solution compared to labor-intensive conduit wiring methods. It is suitable for a variety of applications, including: Installation on metal racks, troughs, raceways, cable trays, or secured supports spaced not more than six feet apart. Exposed or concealed work, wet or dry locations, and direct burial.

## • Construction

Conductor: Class B copper conductor as per ASTM B3 or Class A or B aluminum alloy 1350 conductor as per ASTM B231. Stranded conductors are water-blocked with conductor filling compound. Conductor Shield: Extruded thermosetting semiconducting shield.

Insulation: Extruded TRXLPE as defined in ANSI/ICEA S-94-649.

Insulation Shield: Extruded thermosetting semiconducting shield. Metallic Shield: Flat uncoated 5-mil thick copper tape helically applied with a minimum 20% overlap. A Mylar ribbon is longitudinally applied under the copper tape shield for phase identification - 1C w/Red, 1C w/Blue, and 1C w/None.

Grounding Conductors: Three bare stranded copper conductors.

Fillers: Non-hygroscopic fillers.

Jacket: Black, sunlight-resistant, flame-retardant PVC jacket tightly applied over the binder tape.

## • 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 Rheinland 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

| CU 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                | 1097           | 10                  | 100                   | 105                  |
| 2                                      | 90                   | 3                   | 10                   | 0.284          | 0.51            | 0.57                   | 1.44                | 1412           | 11                  | 135                   | 140                  |
| 1                                      | 90                   | 3                   | 8                    | 0.324          | 0.55            | 0.61                   | 1.53                | 1682           | 11                  | 155                   | 160                  |
| 1/0                                    | 90                   | 3                   | 8                    | 0.364          | 0.59            | 0.65                   | 1.61                | 1948           | 12                  | 175                   | 185                  |
| 2/0                                    | 90                   | 3                   | 8                    | 0.408          | 0.64            | 0.69                   | 1.71                | 2271           | 12                  | 200                   | 215                  |
| 3/0                                    | 90                   | 3                   | 7                    | 0.458          | 0.69            | 0.74                   | 1.88                | 2812           | 14                  | 230                   | 250                  |
| 4/0                                    | 90                   | 3                   | 7                    | 0.515          | 0.74            | 0.8                    | 2                   | 3317           | 15                  | 265                   | 285                  |
| 250                                    | 90                   | 3                   | 7                    | 0.561          | 0.8             | 0.85                   | 2.11                | 3761           | 15                  | 290                   | 320                  |
| 350                                    | 90                   | 3                   | 6                    | 0.664          | 0.9             | 0.95                   | 2.34                | 4918           | 17                  | 355                   | 395                  |
| 500                                    | 90                   | 3                   | 5                    | 0.794          | 1.03            | 1.1                    | 2.65                | 6668           | 19                  | 430                   | 485                  |
| 750                                    | 90                   | 3                   | 4                    | 0.974          | 1.22            | 1.29                   | 3.12                | 9629           | 22                  | 530                   | 615                  |
| 1000                                   | 90                   | 3                   | 4                    | 1.124          | 1.37            | 1.44                   | 3.44                | 12287          | 25                  | 600                   | 705                  |

| CU 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                | 1193           | 10                  | 100                   | 105                  |
| 2                                      | 115                  | 3                   | 10                   | 0.284          | 0.56            | 0.62                   | 1.55                | 1515           | 11                  | 135                   | 140                  |
| 1                                      | 115                  | 3                   | 8                    | 0.324          | 0.6             | 0.66                   | 1.64                | 1789           | 12                  | 155                   | 160                  |
| 1/0                                    | 115                  | 3                   | 8                    | 0.364          | 0.64            | 0.7                    | 1.78                | 2158           | 13                  | 175                   | 185                  |
| 2/0                                    | 115                  | 3                   | 8                    | 0.408          | 0.69            | 0.74                   | 1.88                | 2493           | 14                  | 200                   | 215                  |
| 3/0                                    | 115                  | 3                   | 7                    | 0.458          | 0.74            | 0.79                   | 1.99                | 2941           | 14                  | 230                   | 250                  |
| 4/0                                    | 115                  | 3                   | 7                    | 0.515          | 0.79            | 0.85                   | 2.11                | 3453           | 15                  | 265                   | 285                  |
| 250                                    | 115                  | 3                   | 7                    | 0.561          | 0.85            | 0.9                    | 2.22                | 3903           | 16                  | 290                   | 320                  |
| 350                                    | 115                  | 3                   | 6                    | 0.664          | 0.95            | 1                      | 2.44                | 5072           | 18                  | 355                   | 395                  |
| 500                                    | 115                  | 3                   | 5                    | 0.794          | 1.08            | 1.15                   | 2.76                | 6839           | 20                  | 430                   | 485                  |
| 750                                    | 115                  | 3                   | 4                    | 0.974          | 1.27            | 1.34                   | 3.22                | 9829           | 23                  | 530                   | 615                  |
| 1000                                   | 115                  | 3                   | 4                    | 1.124          | 1.42            | 1.49                   | 3.55                | 12504          | 25                  | 600                   | 705                  |

## ● 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                  |