



CONSTRUCTION

- 1- Conductor:** Class B compact stranded 1350 aluminum as per ASTM B-400.
- 2- Conductor shield:** Extruded thermoset semi-conducting stress control layer.
- 3- Insulation:** Tree-retardant cross-linked polyethylene (TR-XLPE).
- 4- Insulation shield:** Extruded thermoset strippable semi-conducting insulation shield.
- 5- Copper tape shield:** 5 mils bare copper tape helically applied with 25 % minimum overlap.
- 6- Jacket:** black sunlight linear low density thermoplastic polyethylene (LLDPE).

FEATURES AND APPLICATIONS

- INDULINK AL MV-90 is suitable for use in wet or dry locations, in open air (exposed to sunlight), raceways, troughs, ducts and direct burial.
- Typical installations include feeder or branch circuits in generating stations, industrial and commercial installations.
- Rated at maximum operating temperature of 90 °C for normal operation, 130 °C for emergency overload and 250 °C for short-circuit conditions.
- True triple and dry curing extrusion system.
- Excellent corona and moisture resistance.
- Cold bend tested at -35 °C.
- NEC guidelines must be followed for proper application.
- UL listed as MV-90 under file E-500191.

STANDARDS

- ASTM B-400 - Standard Specification for Compact Round Concentric-Lay-Stranded Aluminum 1350 Conductors
- UL 1072 - Medium-Voltage Power Cables
- ICEA S-93-639 - 5-46 kV Shielded Power Cable for use in the Transmission and Distribution of Electric Energy

ALUMINUM CONDUCTOR, 25 kV 100 % INSULATION LEVEL, 260 MILS

| PRODUCT CODE | COND. SIZE (AWG or kcmil) | NOMINAL CONDUCTOR DIAMETER (inches) | NOMINAL INSULATION DIAM. (inches) | NOMINAL INSULATION SHIELD DIAM. (inches) | NOMINAL DIAMETER OVER JACKET (inches) | APPROX. WEIGHT (lb/kft) | | | AMPACITY (A) | | CONDUIT SIZE (inches) |
|--------------|---------------------------|-------------------------------------|-----------------------------------|--|---------------------------------------|-------------------------|--------|-------|--------------------|----------------------|-----------------------|
| | | | | | | ALUMINUM | COPPER | TOTAL | CONDUIT IN AIR (1) | UNDERGROUND DUCT (2) | |
| 828501048 | 1 | 0.30 | 0.874 | 0.937 | 1.113 | 176 | 204 | 551 | 130 | 135 | 3 ½ |
| 828501049 | 1/0 | 0.33 | 0.911 | 0.974 | 1.150 | 223 | 212 | 596 | 150 | 155 | 3 ½ |
| 828501050 | 2/0 | 0.37 | 0.950 | 1.013 | 1.189 | 279 | 221 | 646 | 175 | 175 | 3 ½ |
| 828501051 | 3/0 | 0.42 | 0.997 | 1.060 | 1.236 | 354 | 231 | 710 | 200 | 200 | 3 ½ |
| 828501052 | 4/0 | 0.47 | 1.051 | 1.114 | 1.290 | 445 | 242 | 785 | 230 | 230 | 4 |
| 828501053 | 250 | 0.52 | 1.094 | 1.157 | 1.333 | 527 | 252 | 850 | 255 | 250 | 4 |
| 828501054 | 350 | 0.61 | 1.189 | 1.252 | 1.427 | 736 | 272 | 1004 | 310 | 305 | 4 |
| 828501057 | 500 | 0.73 | 1.311 | 1.374 | 1.550 | 1061 | 299 | 1229 | 385 | 370 | 5 |
| 828501060 | 750 | 0.90 | 1.476 | 1.539 | 1.775 | 1592 | 335 | 1641 | 485 | 455 | 5 |
| 828501062 | 1000 | 1.06 | 1.631 | 1.694 | 1.930 | 2133 | 368 | 1990 | 565 | 525 | 6 |

ALUMINUM CONDUCTOR, 25 kV 133 % INSULATION LEVEL, 320 MILS

| PRODUCT CODE | COND. SIZE (AWG or kcmil) | NOMINAL CONDUCTOR DIAMETER (inches) | NOMINAL INSULATION DIAM. (inches) | NOMINAL INSULATION SHIELD DIAM. (inches) | NOMINAL DIAMETER OVER JACKET (inches) | APPROX. WEIGHT (lb/kft) | | | AMPACITY (A) | | CONDUIT SIZE (inches) |
|--------------|---------------------------|-------------------------------------|-----------------------------------|--|---------------------------------------|-------------------------|--------|-------|--------------------|----------------------|-----------------------|
| | | | | | | ALUMINUM | COPPER | TOTAL | CONDUIT IN AIR (1) | UNDERGROUND DUCT (2) | |
| 830301048 | 1 | 0.30 | 0.994 | 1.057 | 1.233 | 176 | 230 | 654 | 130 | 135 | 3 ½ |
| 830301049 | 1/0 | 0.33 | 1.031 | 1.094 | 1.270 | 223 | 238 | 702 | 150 | 155 | 4 |
| 830301050 | 2/0 | 0.37 | 1.071 | 1.134 | 1.310 | 279 | 247 | 756 | 175 | 175 | 4 |
| 830301051 | 3/0 | 0.42 | 1.117 | 1.180 | 1.356 | 354 | 257 | 822 | 200 | 200 | 4 |
| 830301052 | 4/0 | 0.47 | 1.171 | 1.234 | 1.410 | 445 | 268 | 902 | 230 | 230 | 4 |
| 830301053 | 250 | 0.52 | 1.215 | 1.278 | 1.453 | 527 | 278 | 970 | 255 | 250 | 5 |
| 830301054 | 350 | 0.61 | 1.309 | 1.372 | 1.548 | 736 | 298 | 1132 | 310 | 305 | 5 |
| 830301057 | 500 | 0.73 | 1.431 | 1.494 | 1.730 | 1061 | 325 | 1431 | 385 | 370 | 5 |
| 830301060 | 750 | 0.90 | 1.596 | 1.659 | 1.895 | 1592 | 360 | 1796 | 485 | 455 | 6 |
| 830301062 | 1000 | 1.06 | 1.752 | 1.815 | 2.051 | 2133 | 394 | 2157 | 565 | 525 | 6 |

(1) Ampacities are in accordance with table 310.60(C)(74) of the NEC for insulated triplexed or three single-conductor aluminum cables in isolated conduit in air based on conductor temperatures of 90°C (194 °F) and ambient air temperature of 40°C (104°F).

(2) Ampacities are in accordance with table 310.60(C)(78) of the NEC for three single-insulated aluminum conductors in underground electrical ducts (three conductors per electrical duct) based on ambient earth temperature of 20°C (68°F) electrical duct arrangement in accordance with figure 31060 detail 1 100 percent load factor thermal resistance (rho) of 90 conductor temperatures of 90°C (194°F).

(3) Ampacities are in accordance with Section 392.80(B)(2) of the NEC for single Type MV-90 conductor cables or single conductors cabled together (triplexed, quadruplexed, etc) installed in uncovered cable tray at ambient temperature of 40°C (104°F) and conductor temperatures of 90°C (194°F) The ampacities shall not exceed 75 percent of the allowable ampacities in Table 310.60(C) (70). Where the cable trays are covered for more than 18 m (6 ft) with solid unventilated covers the ampacities for 1/0 AWG and larger single conductor cables shall not exceed 93 percent of the values shown above. Jam ratio has not been considered and should be checked to avoid possible jamming.

Values are nominal and subject to manufacturing tolerances.