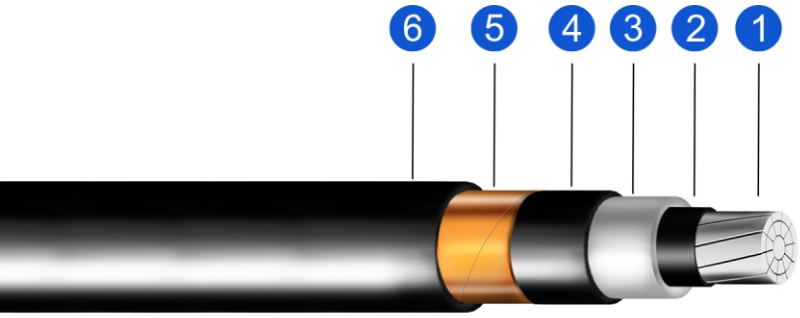
INDULINK AL TYPE MV-90 25 kV 100% and 133% I.L.

XLPE/TAPE SCREEN/PVC JACKET POWER CABLE



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 flame retardant, sunlight and oil resistant I polyvinyl chloride (PVC).

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, trays 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.
- FT4 (70,000 BTU/hr) Flame test and CT use (1/0 AWG and larger).
- 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 Distribubtion of Electric EnergyUL 1685 - Safety Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables
IEEE 1202 – Flame-propagation testing of wire and cable

INDULINK AL TYPE MV-90 25 kV 100% and 133% I.L.

AL/XLPE/TAPE SCREEN/PVC JACKET POWER CABLE

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)	TRAY (3)	
840901048	1	0.30	0.874	0.937	1.113	176	204	1303	130	135	---	3 ½
840901049	1/0	0.33	0.911	0.974	1.150	223	212	1406	150	155	150	3 ½
840901050	2/0	0.37	0.950	1.013	1.189	279	221	1521	175	175	170	3 ½
840901051	3/0	0.42	0.997	1.060	1.236	354	231	1665	200	200	200	3 ½
840901052	4/0	0.47	1.051	1.114	1.290	445	242	1836	230	230	230	4
840901053	250	0.52	1.094	1.157	1.333	527	252	1982	255	250	260	4
840901054	350	0.61	1.189	1.252	1.427	736	272	2333	310	305	320	4
840901057	500	0.73	1.311	1.374	1.550	1061	299	2839	385	370	395	5
840901060	750	0.90	1.476	1.539	1.775	1592	335	3817	485	455	515	5
840901062	1000	1.06	1.631	1.694	1.930	2133	368	4607	565	525	620	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)	TRAY (3)	
842701048	1	0.30	0.994	1.057	1.233	176	230	1541	130	135	---	3 ½
842701049	1/0	0.33	1.031	1.094	1.270	223	238	1650	150	155	150	4
842701050	2/0	0.37	1.071	1.134	1.310	279	247	1772	175	175	170	4
842701051	3/0	0.42	1.117	1.180	1.356	354	257	1924	200	200	200	4
842701052	4/0	0.47	1.171	1.234	1.410	445	268	2104	230	230	230	4
842701053	250	0.52	1.215	1.278	1.453	527	278	2258	255	250	260	5
842701054	350	0.61	1.309	1.372	1.548	736	298	2625	310	305	320	5
842701057	500	0.73	1.431	1.494	1.730	1061	325	3347	385	370	395	5
842701060	750	0.90	1.596	1.659	1.895	1592	360	4172	485	455	515	6
842701062	1000	1.06	1.752	1.815	2.051	2133	394	4989	565	525	620	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.