



### 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-105 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 105 °C for normal operation, 140 °C for emergency overload and 250 °C for short-circuit conditions. Superior current carrying capacity.
- 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-105 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

UL 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

### ALUMINUM CONDUCTOR, 25kV 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)	
832101048	1	0.30	0.874	0.937	1.113	176	204	1303	150	145	---	3 ½
832101049	1/0	0.33	0.911	0.974	1.150	223	212	1406	170	165	170	3 ½
832101050	2/0	0.37	0.950	1.013	1.189	279	221	1521	200	190	195	3 ½
832101051	3/0	0.42	0.997	1.060	1.236	354	231	1665	225	215	225	3 ½
832101052	4/0	0.47	1.051	1.114	1.290	445	242	1836	260	245	260	4
832101053	250	0.52	1.094	1.157	1.333	527	252	1982	290	270	285	4
832101054	350	0.61	1.189	1.252	1.427	736	272	2333	350	330	355	4
832101057	500	0.73	1.311	1.374	1.550	1061	299	2839	430	400	445	5
832101060	750	0.90	1.476	1.539	1.775	1592	335	3817	540	490	575	5
832101062	1000	1.06	1.631	1.694	1.930	2133	368	4607	640	565	690	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)	
833901048	1	0.30	0.994	1.057	1.233	176	230	1541	150	145	---	3 ½
833901049	1/0	0.33	1.031	1.094	1.270	223	238	1650	170	165	170	4
833901050	2/0	0.37	1.071	1.134	1.310	279	247	1772	200	190	195	4
833901051	3/0	0.42	1.117	1.180	1.356	354	257	1924	225	215	225	4
833901052	4/0	0.47	1.171	1.234	1.410	445	268	2104	260	245	260	4
833901053	250	0.52	1.215	1.278	1.453	527	278	2258	290	270	285	5
833901054	350	0.61	1.309	1.372	1.548	736	298	2625	350	330	355	5
833901057	500	0.73	1.431	1.494	1.730	1061	325	3347	430	400	445	5
833901060	750	0.90	1.596	1.659	1.895	1592	360	4172	540	490	575	6
833901062	1000	1.06	1.752	1.815	2.051	2133	394	4989	640	565	690	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 105°C (221°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 105°C (221°F).

(3) Ampacities are in accordance with Section 392.80(B)(2) of the NEC for single Type MV-105 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 105°C (221°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.