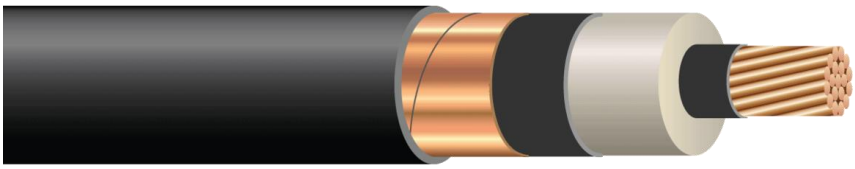
35kV UD AL Cable

UL Type MV-90 (Insulation Level: 133%)



• SCOPE

These cables are used in dry or wet locations for urban underground distribution systems of single phase (core) medium voltage power.

• APPLICATIONS AND FEATURES

35kV cables are suitable for use in wet and dry locations, conduits, ducts, trays, and direct burial for urban underground distribution systems. The conductor temperature shall not exceed 90˚C for normal operation,130˚C for emergency overload, and 250˚C for short circuit conditions. The operation at emergency overload temperature shall not exceed 1500 hours cumulative during the lifetime of the cable.

• APPLICATION STANDARDS

ICEA S-94-649 Standard for concentric neutral cables rated 5 through 46kV
UL 1072 Medium-Voltage power cables
ASTM B 231 Concentric-lay-stranded aluminum 1350 conductors
AEIC CS8 Extruded dielectric, shielded power cables rated 5 through 46kV

• MATERIALS & CONSTRUCTION

Conductor Compressed, class B concentric lay stranded aluminum 1350 wire with swelling powder for impediment to longitudinal water penetration
Conductor Shield Extruded thermosetting semi-conducting shield which is free stripping from conductor and bonded to the insulation
Insulation Triple extruded thermosetting tree retardant cross linked polyethylene (TRXLPE), assuring resistance to treeing
Insulation Shield Extruded thermosetting semi-conducting shield, clean and free stripping from insulation
Concentric Neutral Helically applied, annealed, solid bare copper wires with neutral water-blocking agents applied over the insulation shield and around the neutral wires to resist longitudinal water penetration
Jacket Black with longitudinal three (3) red stripes, non-conducting, sunlight-resistant, linear low-density polyethylene (LLDPE for MV-90) extruded to fill spaces between neutral wires

• CERTIFICATE

UL (File No. E481201) Type MV-90 Cable, Rated 35kV

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Nominal Cross Sectional Area	Conductor		Thickness					Diameter					Cable Net Weight (Approx.)
	Shape	Overall diameter (nom.)	Conductor Shield Thickness (min.)	Insulation Thickness (min./max.)	Insulation Shield Thickness (min.)	Concentric Neutral Conductor	Jacket Thickness (min./max.)	Insulation Overall Diameter		Insulation Shield Overall Diameter		Completed Cable Diameter (Approx.)	
								min.	max.	min.	max.		
AWG or kcmil	-	inches	mils	mils	mils	No./AWG	mils	inches		inches		inches	lb/ft
One-Third Neutral Concentric Conductor													
1/0	Compressed	0.362	12	400/460	40/75	6/14	45/80	1.182	1.353	1.262	1.504	1.573	0.965
4/0	Compressed	0.512	12	400/460	40/75	11/14	70/120	1.329	1.504	1.409	1.655	1.781	1.320
500	Compressed	0.789	16	400/460	55/90	16/12	70/120	1.608	1.806	1.719	1.986	2.098	2.065
750	Compressed	0.968	20	400/460	55/90	24/12	70/120	1.792	1.994	1.902	2.174	2.305	2.679
1000	Compressed	1.117	20	400/460	55/90	20/10	70/120	1.938	2.144	2.048	2.324	2.501	3.284
1250	Compressed	1.250	24	400/460	55/105	25/10	70/120	2.076	2.293	2.187	2.504	2.639	3.820