



Primary Underground Distribution (URD) Cable



AL Conductor XLPE Insulated 35kV UL 1072

URD cable, rated MV105°C (wet and dry) Flame-retardant Cross-Linked Polyethylene XLPE insulation

Description	Units	Value
Insulation material	XLPE	
Conductor type (Three / Single)	Single	
Conductor Cross-Section	kcmil	3/0 AWG
Rating / Insulating level	100% or 133%	100%
Approx. Weight/Foot (K)	Lbs	1015
Number of strands of conductor and diameter	#/awg	19/Compress
Standing Class	Class B(Compress)	
Outside Diameter (OD) conductor	inches	0.449
Layer thickness semi-conducting (inner)	ICEA /inches	0.496
Insulation thickness	ICEA /inches	0.345
Layer thickness semi-conducting (outer)	ICEA /inches	1.278
Concentric neutrals (1/3)	No/AWG	10/16AWG
Concentric neutrals (1/2)	No/AWG	15/16AWG
Concentric neutrals (2/3)	No/AWG	20/16AWG
Concentric neutrals (Full)	No/AWG	18/14AWG
Jacket thickness	inches	0.051
Jacket Color	Black/Red Stripes	
Jacket type	LLDPE/XLPE	XLPE

Description	Units	Value
Cable Diameter	inches	1.516
Service temperature rating	Deg/C	105°C
DC Resistance at 20 Deg C	ohms/1000 ft	0.105
AC Resistance at 105 Deg C	ohms/1000 ft	0.141
Capacitance	µF//1000ft	0.0485
Inductance	mH/1000ft	0.132
Minimum bending radius	inches	15.2
Maximum pulling tension	Lbs	1007
Ampacity of conductor (conduit in air at 20°C)	Amps/NEC 2020	256
Ampacity of conductor (underground duct at 20°C)	Amps/NEC 2020	215
Ampacity of conductor (cable tray at 40°C)	Amps/NEC 2020	265
Ampacity of conductor (conduit in air at 40°C)	Amps/NEC 2020	225
Short circuit rating of conductor	(Is, kA)	7.44
Standard for ampacity calculation	NEC	NEC
Packing	Wood/Metalsheath	Wood
Reactance** - Duct	Ω/1000ft	0.049
Reactance** - Direct Buried	Ω/1000ft	0.091

**In duct: Triplex, In direct buried: Spaced 7.5 inches horizontal

Industry Standards

ICEA S-94-649 – Standard for Concentric Neutral Cables Rated 5 through 46 KVA
 ICEA CSB – Specification for Extruded Dielectric, Shielded Power Cables Rated 5 through 46 KV
 UL 1072 – Medium-Voltage Power Cables

Component Standards

ASTM B 231 – Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
 ASTM B 3 – Standard Specification for Soft or Annealed Copper Wire
 ICEA T-31-610 – Test Method for Conducting Longitudinal Water Penetration Resistance Tests
 ASTM B 5 – Standard Specification for High Conductivity Tough-Pitch Copper Refinery Shapes
 NEC-National Electric Codebook 2020

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