Electric Utility

PowrServ® AR Underground Distribution Cable

600 V Triplex AI Conductor Composite XLPE/HDXLPE Insulation, UL Type USE-2





POWRSERV AR TRIPLEX CABLE-XLPE/HDXLPE-600 VOLTS														
	PHASE CONDUCTOR			NEUTRAL CONDUCTOR					APPROX.		AMPACITY (2)			
CODE WORD	SIZE AWG OR kcmil			HDXLPE Thkn. In	SIZE AWG OR kcmil	NO. Of Wires	XLPE Thkn. In	HDXLPE Thkn. In	EFF. O.D. IN		IGHT 100 Ft Total	DIRECT Buried	IN Duct	PKG. 1000 FEET REEL (3)
Erskine/AR/EYS	6	7	0.030	0.030	6	7	0.030	0.030	0.64	74	133	110	70	NR 27.18
Vassar/AR/EYS	4	7	0.030	0.030	4	7	0.030	0.030	0.74	118	191	145	90	NR 30.18
Stephens/AR/EYS	2	7	0.030	0.030	4	7	0.030	0.030	0.84	164	249	185	120	NR 32.24
Ramapo/AR/EYS	2	7	0.030	0.030	2	7	0.030	0.030	0.87	187	278	185	120	NR 32.24
Brenau/AR/EYS	1/0	19	0.040	0.040	2	7	0.030	0.030	1.04	261	386	235	160	NR 36.24
Bergen/AR/EYS	1/0	19	0.040	0.040	1/0	19	0.040	0.040	1.10	298	439	235	160	NR 40.24
Converse/AR/EYS	2/0	19	0.040	0.040	1	19	0.040	0.040	1.15	329	476	270	185	NR 40.24
Hunter/AR/EYS	2/0	19	0.040	0.040	2/0	19	0.040	0.040	1.20	375	532	270	185	NR 40.24
Hollins/AR/EYS	3/0	19	0.040	0.040	1/0	19	0.040	0.040	1.25	415	578	305	210	NR 40.24
Rockland/AR/EYS	3/0	19	0.040	0.040	3/0	19	0.040	0.040	1.30	473	648	305	210	NR 42.26
Sweetbriar/AR/EYS	4/0	19	0.040	0.040	2/0	19	0.040	0.040	1.36	523	705	350	245	NR 42.26
Monmouth/AR/EYS	4/0	19	0.040	0.040	4/0	19	0.040	0.040	1.42	597	792	350	245	NR 45.28
Pratt/AR/EYS	250 [†]	37	0.045	0.050	3/0	19	0.040	0.040	1.53	628	855	380	270	NR 45.28
Wesleyan/AR/EYS	350†	37	0.045	0.050	4/0	19	0.040	0.040	1.69	858	1115	455	325	NR 50.32
Newark/AR/EYS	350 [†]	37	0.045	0.050	350	37	0.045	0.050	1.79	988	1277	455	325	NR 58.32
Rider/AR/EYS	500 [†]	37	0.045	0.050	350	37	0.045	0.050	2.03	1269	1601	555	410	NR 58.32

(1) Actual number of wires may differ for compressed round stranded aluminum conductors using single input wire (SIW). (2) Ampacities are for non-code-complying installations. For installations covered by National Electrical Code (NEC), see the

appropriate section of the NEC. Ampacity based on earth thermal resistivity of 90°C-cm/watt, 90°C conductor temp., 20°C earth ambient temperature, 100% load factor and 36" depth of burial. Values based on no current in the neutral conductor. (3) Reel sizes may vary. MasterPak reel-less packaging is available - see Section 6 for description and typical dimensions for selected low-voltage products.

⁺ Available with thin wall (0.040"/0.040") insulation

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

Product Construction:

Complete Cable:

Triplex PowrServ[®] abuse-resistant (AR) cables consist of two phase conductors and one neutral conductor, all of which are insulated with extruded lead-free composite Cross-linked Polyethylene (XLPE) and High-Density Crosslinked Polyethylene (HDXLPE). The cables are twisted together to form a triplex assembly. These XLPE insulated cables are manufactured and tested in accordance with ANSI/ICEA S-81-570 and UL 854, listed as a Type USE-2 cable.

Conductors:

Class B or SIW compressed 1350-H19 aluminum.

Composite Insulation:

The extruded lead-free cross-linked polyethylene insulation meets the requirements of ANSI/ICEA S-81-570. The extruded lead-free high-density cross-linked polyethylene meets the requirements of ASTM D1248, Type III. The two phase conductors are black, and the neutral conductor is black, identified by three extruded yellow stripes.

Phase Identification:

Phase identification is provided by means of white print legend markings and sequential footage markings on one phase conductor, white print legend markings on the other phase conductor, and white print legend markings and three extruded yellow stripes on the neutral conductor.

Features and Benefits:

The dual extruded composite insulation system provides a very high degree of protection against insulation damage from unclean backfill material and from cuts and abrasions that can occur during installation. For NEC-complying applications, the maximum conductor operating temperature is 90°C in wet or dry locations. This cable is also suitable for non-code-complying installations with a maximum conductor temperature of 90°C in wet or dry locations.

Applications:

PowrServ AR XLPE/HDXLPE underground distribution cable is intended for use in underground systems operated at 600 volts or less.

Options:

- Aluminum 1350-H16 or H26 (¾ Hard) stranded conductor
- Copper conductors
- · Sizes 250 through 500 kcmil available with thin wall (0.040"/0.040") insulation
- Composite PE/HDPE insulation, 75°C rating
 - · Other phase identification methods
 - · Combined Duct & Cable factory-installed in extruded HDPE duct
 - MasterPak[®] reel-less packaging



