

USE-2 or RHW-2 or RHH, VW-1

EPR, XL-CPE (Composite), 600 Volts

APPLICATION:

For lighting and power applications in accordance with the National Electrical Code and for other general purpose wiring applications. Suitable for use in circuits not exceeding 600 volts at conductor temperatures not exceeding 90°C in wet or dry locations. May be installed in raceway, duct, cable tray, direct burial and aerial installations.

STANDARDS:

1. Listed by UL as Type USE-2 (90°C wet or dry) per Standard 854 for Service Entrance Cables.
2. Listed by UL as Types RHW-2 (90°C wet or dry) or RHH (90°C dry) per Standard 44.
3. All sizes carry the VW-1 flame test designation.
4. Cables are UL listed as Sunlight Resistant.
5. Size 1/0 AWG and larger are UL listed For CT Use.
6. Conforms to ICEA S-95-658/NEMA WC70.
7. Meets UL44 cold bend test at -40°C.

CONSTRUCTION: Annealed tinned copper conductor, EPR (ethylene-propylene-rubber) insulation, Cross-Linked CPE jacket, surface printed.



USAWC Part #	Size AWG or kcmil	No. of Strands	Thickness Mils		Nom. Diam. Inches	Copper Conductor				
			Insulation	Jacket		Weight lbs/ 1000 ft		Ampacity		
						Net	Copper	90°C * USE-2 RHW-2 RHH	75°C ** USE RHW	90°C *** USE-2 RHW-2
14-01EXC	14	7	30	15	.17	24	13	25	20	
12-01EXC	12	7	30	15	.19	33	20	30	25	
10-01EXC	10	7	30	15	.21	48	32	40	35	
8-01EXC	8	7	45	15	.28	77	50	55	50	
6-01EXC	6	7	45	30	.35	122	81	75	65	
4-01EXC	4	7	45	30	.39	178	129	95	85	
2-01EXC	2	7	45	30	.46	265	205	130	115	
1/0-01EXC	1/0	19	55	45	.58	422	326	170	150	169
2/0-01EXC	2/0	19	55	45	.63	518	411	195	175	195
4/0-01EXC	4/0	19	55	45	.74	785	653	260	230	263
250-01EXC	250	37	65	65	.85	960	772	290	255	296
350-01EXC	350	37	65	65	.96	1299	1081	350	310	371
500-01EXC	500	37	65	65	1.09	1803	1544	430	380	455
750-01EXC	750	61	80	65	1.31	2664	2316	535	475	664
1000-01EXC	1000	61	80	65	1.46	3989	3088	615	545	791

*AMPACITY in accordance with NEC for not more than three conductors. AS RHW-2: in raceway, 90°C conductor temperature and 30°C ambient in wet or dry locations. As RHH: in raceway, 90°C conductor temperature and 30°C ambient in dry locations. As USE-2: direct burial, 90°C conductor temperature and 30°C ambient in wet locations.

**AMPACITY in accordance with NEC for not more than three conductors. AS RHW: in raceway, 75°C conductor temperature and 30°C ambient in wet or dry locations: As USE: direct burial, 75°C conductor temperature and 30°C ambient in wet locations.

***AMPACITY in accordance with NEC for cables installed in uncovered cable tray without maintained spacing, 90°C conductor temperature and 30°C ambient in wet or dry locations

Specification

USE-2 or RHW-2 or RHH, VW-1

EPR, XL-CPE (Composite), 600 Volts

1. SCOPE

1.1 This specification describes single conductor composite EPR, ethylene-propylene-rubber, XL-CPE insulated cables for use in circuits not exceeding 600 volts. Cables are listed by UL as Type USE-2 and are recognized for underground use in wet locations at a maximum continuous conductor temperature of 90°C in accordance with Article 338 of the National Electrical Code. The cables are also listed by UL as Type RHH or RHW-2 for general purpose wiring applications at maximum continuous conductor temperature of 90°C in dry locations (RHH) or 90°C in wet or dry locations (RHW-2) and may be installed in air, conduit or other recognized raceways in accordance with Article 310 of the National Electrical Code. All cables comply with UL's VW-1 (Vertical Wire) Flame Test. Sizes 1/0 AWG and larger may be used in cable tray in accordance with Article 392 of the NEC.

2. APPLICABLE STANDARDS

2.1 The following standards form a part of this specification to the extent specified herein:

- 2.1.1 Underwriters Laboratories Standard 854 for Service Entrance Cables.
- 2.1.2 Underwriters Laboratories Standard 44 for Rubber-Insulated Wires and Cables.
- 2.1.3 ICEA Pub. No. S-95-658, NEMA Pub. No. WC70 for Nonshielded Power Cables Rated 2000 Volts or Less.
- 2.1.4 Federal Specification J-C-30B.

3. CONDUCTORS

3.1 Conductor shall be Class B stranded annealed tinned copper per UL Standards 854 and 44.

4. INSULATION

4.1 Each conductor shall be insulated with EPR, an ethylene-propylene-rubber complying with the physical and electrical requirements of UL Standard 854 for Type USE-2 and UL Standard 44 for Types RHW-2 or RHH and Table 3-7, Class E-2 of ICEA.

4.2 The average thickness of insulation for a given conductor size, shall be as specified in UL Standard 44 for composite Type RHH or RHW-2 and Table 3-4, Column B of ICEA. The minimum thickness at any point shall be not less than specified in UL Standard 44. The insulation shall be applied tightly to the conductor and shall be free-stripping.

5. JACKET

5.1 A XL-CPE insulating-grade jacket shall be applied over the insulation complying with the physical requirements of UL Standard 44 for Class CP.

5.2 The average thickness of the XL-CPE jacket, shall be as specified in UL Standard 44 for Type RHH or RHW-2 composite. The minimum thickness at any point shall be not less than specified in UL Standard 44.

6. IDENTIFICATION

6.1 The wire shall be identified by surface marking indicating manufacturer's identification, conductor size and metal, voltage rating, UL Symbol, VW-1, type designation, and optional ratings.

7. TESTS

7.1 Wire shall be tested in accordance with the requirements of UL Standard 854 for Type USE-2, UL Standard 44 for Types RHW-2 or RHH and ICEA S-95-658.

8. LABEL

8.1 The wire shall bear the Underwriters Laboratories label for Type USE-2.