

### X-Olene® Type XHH/XHHW-2

**600/1000V Power and Control**

Copper Conductor/90°C Wet or Dry  
Sunlight Resistant



**A** Bare, Solid or Stranded  
Copper Conductor  
**B** X-Olene Insulation

#### Insulation

X-Olene is Okonite's trade name for its chemically cross-linked polyethylene insulating compound with outstanding electrical and physical properties. Its excellent chemical physical resistance permits X-Olene's use in areas exposed to alcohol, ketones and dilute acids and bases, without additional coverings.

#### Applications

X-Olene® Type XHH/XHHW-2 600/1000 Volt cables are designed for general-purpose low voltage power and control applications. In accordance with the National Electrical Code, Type XHH/XHHW-2 is suitable for use in both wet or dry locations at operating temperatures up to 90°C. These cables may be installed indoors or outdoors, in raceways, underground ducts, or lashed to a messenger for aerial applications.

#### Specifications

**Conductor:** Uncoated soft copper per ASTM B-3. Solid per ASTM B-3. Sizes smaller than #8 are compress stranded per ASTM B-8. Sizes #8 and larger are compact stranded per ASTM B-496.

**Insulation:** Meets or exceeds all requirements of ICEA S-95-658/NEMA WC-70, and UL Standard 44.

Listed by Underwriters Laboratories, Inc. as Type XHH/XHHW-2.

#### Product Features

- Small diameter, permits use of smaller conduit or more wires per conduit.
- Excellent heat resistance.
- Rated 90°C in dry or wet locations.
- Mechanically rugged.
- Stable electrical properties.
- Low moisture absorption.
- Highly resistant to weather and most chemicals.
- UL Listed.
- Oil resistant, PR I & PR II.
- Gasoline and oil resistant, GR I & GR II.
- Sunlight resistant.

#### Options:

- Aluminum 8000 Series alloy conductors are also available.
- Tinned copper conductors available upon request.

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## Product Data

### Section 3: Sheet 3

Catalog Number	Conductor size AWG kcmil	Number of Strands	Insulation Thickness - mils	Insulation Thickness - mm	Approx. O.D. - Inches	Approx. O.D. - mm	Approx. Net Weight lbs./1000'	Approx. Ship Weight lbs./1000'	90°C Wet (1)* NEC Ampacity	75°C Wet (1)* NEC Ampacity	ICEA Ampacity (2)
112-31-3061	14 1	30	0.76	0.13	3.30	17	22	15	15	24	
112-31-3071	14 7	30	0.76	0.14	3.56	18	23	15	15	24	
112-31-3101	12 1	30	0.76	0.15	3.81	25	30	20	20	30	
112-31-3111	12 7	30	0.76	0.15	3.81	26	31	20	20	30	
112-31-3141	10 1	30	0.76	0.17	4.32	37	42	30	30	42	
112-31-3151	10 7	30	0.76	0.18	4.57	39	44	30	30	42	
112-31-3221	8 1	45	1.14	0.23	5.84	62	67	55	50	55	
112-31-3231	8 7	45	1.14	0.23	5.84	62	67	55	50	55	
112-31-3271	6 7	45	1.14	0.27	6.89	94	99	75	65	75	
112-31-3311	4 7	45	1.14	0.31	7.87	144	155	95	85	97	
112-31-3371	2 7	45	1.14	0.37	9.40	223	246	130	115	130	
112-31-3401	1 19	55	1.40	0.42	10.7	282	305	150	130	156	
112-31-3421	1/0 19	55	1.40	0.46	11.7	353	384	170	150	179	
112-31-3441	2/0 19	55	1.40	0.50	12.7	439	471	195	175	204	
112-31-3461	3/0 19	55	1.40	0.54	13.7	548	580	225	200	242	
112-31-3481	4/0 19	55	1.40	0.60	15.2	685	724	260	230	278	
112-31-3511	250 37	65	1.65	0.66	16.8	814	853	290	255	317	
112-31-3541	350 37	65	1.65	0.76	19.3	1126	1181	350	310	384	
112-31-3581	500 37	65	1.65	0.87	22.1	1591	1655	430	380	477	
112-31-3641	750 61	80	2.03	1.07	27.2	2385	2485	535	475	598	
112-31-3701	1000 61	80	2.03	1.22	31.0	3159	3275	615	545	689	

Okonite's web site, [www.okonite.com](http://www.okonite.com) contains the most up to date information.

To order a color other than black, change the last digit of the catalog number as follows:			
White	2	Orange	5
Red	3	Blue	6
Green	4	Yellow	7
Example: To order #14/Sol - Red, the catalog number would be 112-31-3063.			

(1) **Ampacities** are based on Table 310.16 of the National Electrical Code for these 90°C rated conductors at an ambient temperature of 30°C. The 75°C wet column is provided for additional information.

The ampacities shown apply to open runs of cable, installation in any approved raceway, direct burial in the earth, or as aerial cable on a messenger. Derating for more than three current carrying conductors within a raceway is in accordance with NEC 310.15(C)(1).

(2) Based on three (3) conductors in a single enclosed or exposed conduit. Capacities based on 40°C air ambient using ICEA methods. For 30°C ambient multiply values by 1.10; for 50°C multiply by .90. For other ambients or installation conditions refer to Okonite's Engineering Data Book EHB.

\*Current limited to 15, 20 and 30 amps per Section 240.4(D)(3) of the NEC for #14, #12 and #10 AWG, respectively.