Okonite-FMR®

Type XHH or XHHW-2
Type RW75, RW90

UL 600/1000V and cUL 600V Power and Control
Copper Conductor/90°C Wet or Dry
UL Listed For Cable Tray Use, Oil Res I, -40°C

A Stranded Copper Conductor
B Okonite-FMR Insulation

Insulation

Okonite-FMR is Okonite's trade name for its heat, moisture, flame and chemically resistant, mechanically rugged ethylene -propylene insulation compound. Its physical properties and flame retardency permit its use without a jacket on the single conductors.

The properties of Okonite-FMR insulation substantially enhance the well known features of ethylene propylene rubber based insulations.

Applications

Okonite-FMR Type XHH or XHHW-2 600/1000V Power and Control Cables are recommended for general low voltage power and control applications. Okonite-FMR flame retardant insulated power cables may be used in generating plants, substations and industrial plants. These cables may be installed in wet or dry locations, indoors or outdoors, in raceways, underground ducts, cable tray (size 1/0 AWG and larger per NEC article 392.10(B)(1)) or lashed to a messenger for aerial installation.

Specifications

Conductor: Uncoated soft copper 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, UL 44 and CSA C22.2 No.38.

Listed by Underwriters Laboratories, Inc. as Type XHH or XHHW-2, VW-1.

Product Features

- Sizes 1/0 AWG and larger pass the Vertical Tray Flame Test requirements of UL 1581 for use in cable tray.
- Passes the ICEA T-29-520 210,000 Btu/hr. vertical tray flame test (sizes 6 AWG and larger).
- Passes the IEEE 383-74 Vertical Tray Flame Test.
- Passes the IEEE 1202/FT4 Vertical Tray Flame Test. (sizes 1/0 AWG and larger).
- Extreme heat resistance 90°C continuous rating; 130°C emergency overload rating; 250°C short circuit rating.
- Rated 90°C wet or dry.
- Exceptional resistance to deformation at high temperatures.
- Stable electrical properties.
- Low SIC and power factor.
- Low moisture absorption.
- Mechanically rugged.
- Resistant to weather.
- Smaller diameter.
- More flexible, easier to install, terminate, or splice than XLPE insulation.
- UL Listed, UL Rated VW-1, For CT Use 1/0 AWG & larger, Oil Res I, -40°C.
- cUL listed RW75 or RW90.
- UL Type RHH/RHW-2 600/1000V or 2000V, cUL Type RW75/RW90 600V or 2000V, and cUL RWU90 1000V constructions are also available.

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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 and CEC Ampacity	75°C Wet (1)* NEC and CEC Ampacity	ICEA Ampacity (2)
112-07-1071	14	7	30	0.76	0.14	3.6	20	43	15	15	24
112-07-1101	12	7	30	0.76	0.16	4.1	29	52	20	20	30
112-07-1131	10	7	30	0.76	0.18	4.6	43	66	30	30	42
112-07-1191	8	7	45	1.14	0.23	5.8	68	91	55	50	55
112-07-1221	6	7	45	1.14	0.27	6.9	101	124	75	65	75
112-07-1251	4	7	45	1.14	0.31	7.9	153	176	95	85	97
112-07-1311	2	7	45	1.14	0.37	9.4	233	256	130	115	130
112-07-1331	1	19	55	1.40	0.42	10.7	296	319	145	130	156
112-07-1351	1/0	19	55	1.40	0.46	11.7	367	399	170	150	179
112-07-1371	2/0	19	55	1.40	0.50	12.7	456	488	195	175	204
112-07-1391	3/0	19	55	1.40	0.55	14.0	567	599	225	200	342
112-07-1411	4/0	19	55	1.40	0.60	15.2	706	745	260	230	278
112-07-1431	250	37	65	1.65	0.66	16.8	840	879	290	255	317
112-07-1471	350	37	65	1.65	0.76	19.3	1157	1212	350	310	384
112-07-1531	500	37	65	1.65	0.87	22.1	1626	1690	430	380	477
112-07-1591	750	61	80	2.03	1.07	27.2	2440	2540	535	475	598
112-07-1651	1000	61	80	2.03	1.22	31.0	3222	3338	615	545	689

Okonite's web site, 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 - Red, the catalog number would be 112-07-1073			

Ampacities

(1) Ampacities are based on Table 310.16 of the National Electrical Code and Table 1 of the CEC 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 Section 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 Engineering Data Book EHB.

For ampacities in cable tray, see NEC Section 392.80.

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

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