Okoguard® Okoseal® Type MV-105
15kV Okoguard Shielded Power Cable
3 Okopact® (Compact Stranded) Copper Conductors/105°C Rating
100% & 133% Insulation Level
For Cable Tray Use-Sunlight Resistant-For Direct Burial

Insulation
Okoguard is Okonite’s registered trade name for its exclusive ethylene-propylene rubber (EPR) base, thermosetting compound, whose optimum balance of electrical and physical properties is unequaled in other solid dielectrics. Okoguard insulation, with the distinctive red color and a totally integrated EPR system, provides the optimum balance of electrical and physical properties for long, problem free service.

Assembly
The Type MV-105 conductors are assembled with fillers and a binder tape overall. One bare stranded copper ground conductor is placed in one of the outer interstices.

Jacket
The Okoseal (PVC) jacket supplied with this cable is mechanically rugged and has excellent resistance to oil and most chemicals.

Applications
Okoguard shielded three conductor Okoseal Type MV-105 power cables are recommended for distribution circuits, and for feeders or branch circuits in industrial and utility power distribution systems. Type MV cables may be installed in wet or dry locations, indoors or outdoors (exposed to sunlight), in any raceway or underground duct, directly buried, cable tray, or messenger supported in industrial establishments and electric utilities.

Specifications
Conductors: Uncoated copper compact stranded per ASTM B-496.
Strand Screen: Extruded semiconducting EPR strand screen meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74, CSA C68.10 and UL 1072.
Insulation: Okoguard meets or exceeds the electrical and physical requirements of ICEA S-93-639/NEMA WC74, CSA C68.10 and UL 1072. The insulated conductors are tested in accordance with AEIC CS8.
Insulation Screen: Extruded semiconducting EPR insulation screen per ICEA S-93-639/NEMA WC74, AEIC CS8, CSA C68.10 and UL 1072.
Shield: 5 mil uncoated copper tape helically applied with 12.5% nominal overlap.

Phase Identification: Color coded (black, red, blue) polyester ribbon laid longitudinally under the copper tape shield.
Grounding Conductor: Uncoated copper compact stranded per ASTM B-496 and sized in accordance with UL 1072.
Assembly: Cabled with fillers and ground wire in the interstices, binder tape overall.
Jacket: Meets or exceeds electrical and physical requirements of ICEA S-93-639/NEMA WC74, CSA C68.10 and UL 1072 for polyvinyl chloride jackets.
UL Listed as Type MV-105, sunlight resistant for use in cable tray, and for direct burial in accordance with UL 1072.

Cables listed to CSA C68.10

Product Features
• Triple tandem extruded, all EPR system.
• Complete prepackaged, color coded, factory tested wiring system.
• Passes the UL 1072, IEEE 383 and IEEE 1202/FT4 Vertical Tray Flame Tests.
• Complies with NEC Section 336.36 and is suitable for direct buried when installed in accordance with NEC Sections 250.4(A)(5).
• Minimum installation temperature of -40°C.
• Excellent corona resistance.
• Screens are clean stripping.
• Exceptional resistance to “treeing”.
• Improved Temperature Rating.
• Sizes 4/0 AWG and larger are CSA listed as FT4, SR, LTGG (-40°C), and TC-ER.
• Sizes smaller than 4/0 AWG are CSA listed as FT4, SR, and LTDD (-25°C).
Okonite’s web site, www.okonite.com contains the most up to date information.

Ampacities shall not be more than 95% of the values shown above.

Where the cable tray is covered for more than six feet with solid unventilated covers, the temperature of 105°C and ambient air temperature of 40°C. Where the cable is installed in uncovered cable tray in accordance with Section 392.80(B) of the NEC with a conductor operating temperature of 105°C and ambient earth temperature of 20°C, 100% load factor, thermal resistance (RHO) of 90.

Refer to the NEC, IEEE/CEA S-135 Power Cable Ampacities or the Okonite Engineering Data Bulletin for installation in duct banks, other ambient temperatures, circuit configurations or installation requirements.

### Okoguard Insulation: 175 mils (4.45mm), 100% Insulation Level

<table>
<thead>
<tr>
<th>Catalog Number (1)</th>
<th>Conductor Size</th>
<th>Approx. Diameter over Insulation (in.)</th>
<th>Approx. Core O.D. - Inches</th>
<th>Jacket Thickness - mm</th>
<th>Approx. O.D. - mm</th>
<th>Approx. O.D. - Inches</th>
<th>Approx. Core O.D. - mm</th>
<th>Jacket Thickness - mm</th>
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### Okoguard Insulation: 220 mils (5.59mm), 133% Insulation Level

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<tr>
<th>Catalog Number (1)</th>
<th>Conductor Size</th>
<th>Approx. Diameter over Insulation (in.)</th>
<th>Approx. Core O.D. - Inches</th>
<th>Jacket Thickness - mm</th>
<th>Approx. O.D. - mm</th>
<th>Approx. O.D. - Inches</th>
<th>Approx. Core O.D. - mm</th>
<th>Jacket Thickness - mm</th>
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</table>

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**Notes:**
- **Authorized stock item.** Available from our Customer Service Centers.
- **Aluminum Conductors**
  - (1) Aluminum conductors available on special orders.
- **Ampacities**
  - (2) Ampacities are in accordance with Table 311.60(C)(71) of the NEC for an insulated three conductor cable, isolated in air, with a conductor operating temperature of 105°C and an ambient air temperature of 40°C.
  - (3) Ampacities are in accordance with Table 311.60(C)(75) of the NEC for a three conductor Type MV-105 cable installed in uncovered cable tray in accordance with Section 392.80(B) of the NEC with a conductor operating temperature of 105°C and ambient air temperature of 40°C. Where the cable tray is covered for more than six feet with solid unventilated covers, the ampacities shall not be more than 95% of the values shown above.
  - (4) Ampacities are in accordance with Table 311.60(C)(83) of the NEC for an insulated three conductor cable directly buried in the earth with a conductor operating temperature of 105°C, ambient earth temperature of 20°C, 100% load factor, thermal resistance (RHO) of 90.

Refer to the NEC, IEEE/CEA S-135 Power Cable Ampacities or the Okonite Engineering Data Bulletin for installation in duct banks, other ambient temperatures, circuit configurations or installation requirements.