



## Okoguard®-Okoseal® Type MV-105 5/8kV Okoguard Shielded Power Cable



3 Okopact® (Compact Stranded) Copper Conductor/105°C Rating  
5kV-133% or 8kV-100% Insulation Level

**For Cable Tray Use-Sunlight Resistant-For Direct Burial**



- A Uncoated Okopact (Compact Stranded) Copper Conductor
- B Extruded Semiconducting EPR Strand Screen
- C Okoguard Insulation (EPR)
- D Extruded Semiconducting EPR Insulation Screen
- E Phase Identification Tape
- F Okopact Compact Copper Grounding Conductor
- G Uncoated Copper Shield
- H Fillers and Binder Tape
- J Jacket-Black Okoseal

### 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 unequalled 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 Type MV-105 power cables are recommended for distribution circuits, and for feeders or branch circuits in industrial & 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 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 and 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, LTDD (-25°C), and TC-ER.

# Okoguard®-Okoseal® Type MV-105 5/8kV Okoguard Shielded Power Cable



## Product Data Section 2: Sheet 19

3 Okopact® (Compact Stranded) Copper Conductor/105°C Rating  
5kV-133% or 8kV-100% Insulation Level  
For Cable Tray Use-Sunlight Resistant-For Direct Burial

Okoguard Insulation: 115 mils (2.92mm), 5kV-133% or 8kV-100% Insulation Level

Catalog Number (1)	Conductor size (AWG or kcmil)		Conductor Size -mm <sup>2</sup>	Approx. Diameter over Insulation (in.)		Grounding Conductor Size (AWG/kcmil)		Grounding Conductor Size -mm <sup>2</sup>		Approx. Core O.D. - Inches		Jacket Thickness - mils		Approx. O.D. - mm		Approx. O.D. - Inches		Approx. Net Weight lbs./1000'		Approx. Ship Weight lbs./1000'		Ampacities in Cable Tray (2)		Ampacities Direct Burial (3)	
▲ 114-23-3630	6	13.3	0.44	6	13.3	1.10	27.9	80	2.03	1.29	32.8	1015	1115	88	115										
114-23-3633	4	21.2	0.48	6	13.3	1.19	30.2	80	2.03	1.38	35.1	1235	1390	115	150										
▲ 114-23-3640	2	33.6	0.54	6	13.3	1.32	33.5	80	2.03	1.51	38.3	1560	1715	155	190										
114-23-3642	1/0	53.5	0.61	4	21.2	1.46	37.0	80	2.03	1.65	41.9	2090	2250	205	245										
▲ 114-23-3648	2/0	67.4	0.65	4	21.2	1.55	39.4	110	2.79	1.80	45.7	2513	2695	240	280										
▲ 114-23-3736	4/0	107.0	0.75	3	26.7	1.77	45.0	110	2.79	2.02	51.3	3455	3780	320	360										
114-23-3770	250	127.0	0.80	2	26.7	1.88	47.8	110	2.79	2.13	54.1	3961	4245	355	395										
▲ 114-23-3772	350	177.0	0.89	2	33.6	2.08	52.8	110	2.79	2.33	59.2	5116	5665	440	475										
▲ 114-23-3782	500	253.0	1.01	1	42.4	2.33	59.2	110	2.79	2.59	65.8	6799	7430	545	570										

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

For 8kV ampacities refer to the NEC tables referenced below in the columns listed 5001-35,000 Volts

▲ Authorized stock item. Available from our Customer Service Centers.

**Aluminum Conductors**

(1) Aluminum conductors are available on special order.

**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)(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 and thermal resistance (RHO) of 90.

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