Caledonian

Medium Voltage Cables (ICEA Standard)

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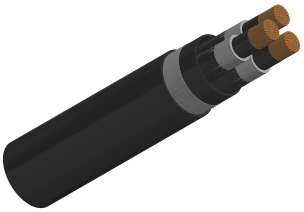
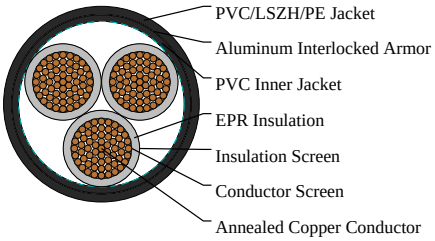
EPR INSULATED CABLES MV-105 3C1000 MCM

AIA ARMOURED
133% Copper Three Conductor





PRODUCT DESCRIPTION

The three core cables are designed for distribution of electrical power with nominal voltage Uo/U ranging from 8KV and frequency 50Hz.Three core cables are made of strandedcopper or aluminium conductor, triple extruding insulating system consisting of thermosettingsemi-conducting conductor shield, XLPE/TR-XLPE/EPR insulation and thermosetting semiconducting insulation shield. There are a number of designs of metallic shields including thecopper tape helically applied with overlap, copper wire shield, concentric neutral, longitudinallyapplied corrugated copper tape and metal sheath available, which are surrounded with fillersand grounding conductor, overall binder tape and overall PVC, LSZH or PE jacket.

STANDARDS

National Fire Protection Standard (NEPA 70): National Electric Code
AEIC CS8
ICEA S-93-639 (NEMA WC74), Standard for shielded power cable 5KV-46KV
ICEA S-93-639 (NEMA WC74), Standard for shielded power cable 5KV-46KVICEA S-97-682
IEEE 1202 – Flame Testing of cables for use in cable tray
ICEA T29-520 Vertical
UL 1072 for medium voltage cables

VOLTAGE RATING

8KV

CABLE CONSTRUCTION

Conductors:The conductor consists soft drawn annealed copper meeting the requirement of ASTM B3.Unless otherwisespecified, the conductor shall be supplied class B as per ASTM B496.
Conductor Shield:Conductor shield consists of extruded thermosetting semi conducting compound which is freestripping from conductor and bonded to the insulation.
Insulation:The insulation is EPR extruded concentrically over the conductor. Highdielectric strength tree retardant XLPE (TR-XLPE) can be offered as option to provide anoptimum balance of mechanical and electrical properties, insuring resistance to treeing. 133%/ insulation level is available upon request. The insulation meets or exceedselectrical and physical requirements of ICEA S-96-659/NEMA WC71, and UL 1072.

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Insulation Shield:Insulation shield consists of extruded thermosetting semi-conducting compound with controlledadhesion to the insulation, providing required balance between electrical integrity and ease ofstripping.

Assembly:Cables are cabled together with a left hand lay and suitable filler to make the cable round. A binder tape is applied to maintain core geometry and mechanical stability. Fillers may be PP yarn, ramie yarn, plastics or other filler material.

Armour:For armouring options, inner PVC jacket is applied over the binder type. Corrugated aluminium interlocking armour (AIA) is applied over the inner jacket.

Jacket:A protective sunlight and ozone resistant jacket of PVC is extruded for a tight fit over the welded armour or the core assembly.

DIMENSION AND PARAMETERS

Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Appr. Armor O.D.	Appr. Armor O.D.	Approx. Overall Diameter	Approx. Overall Diameter	Ampacity 90°C In Duct	Cable Weight	Cable Weight
	mm	mm	in	mm	in	mm	amps	Lbs./Kft	kg/km
1000 MCM	3.56	3.56	3.94	100.09	4.09	104	770	34733	23345