

# **INTERLOCKED ARMORED POWER CABLE, 600 VOLT FR-CROSS-LINKED POLYETHYLENE INSULATION (RHW-2 or USE-2) TYPE MC, MULTI-CONDUCTOR**

## **SCOPE:**

This specification covers Aetna Insulated Wire's standard construction for multi-conductor power cables insulated with flame retardant cross-linked polyethylene (XLP). The insulated conductors cabled with a ground wire and the assembly encased in interlocked armor, with a protective polyvinyl chloride (PVC) jacket overall.

## **PRODUCT SPECIFICATIONS AND RATINGS:**

- i) National Fire Protection Association (NFPA) 70: National Electric Code (NEC)
- ii) Underwriters Laboratories 1569 Metal Clad Cables
- iii) Underwriters Laboratories 44 Thermoset-Insulated Wires and Cables
- iv) Underwriters Laboratories 854 Service-Entrance Cables
- v) ICEA S-95-658/NEMA WC70 Nonshielded 0-2 kV Cables
- vi) For ratings see the individual product specification sheets.

## **APPLICATION:**

All cables produced to this specification are recognized by the NEC as Type MC and are suitable for use as described in the code. The cables are rated 600 V and conductor temperatures are rated for continuous operation at 90°C, for emergency overload at 130°C and for short circuit at 250°C. The cables meet the requirements for application in NEC Class I and II, Div 2 and Class III, Div 1 and 2, Hazardous Locations. The cables are intended for use in industrial locations where the protection of steel or aluminum armor is necessary. The cables may be used in wet or dry applications, installed in racks, trays or aerially. These cables have an overall jacket and can be direct buried and/or buried in concrete.

## **CONSTRUCTION DATA:**

**Conductors** - The conductors consist of uncoated soft, copper strands meeting the requirements of ASTM B3. Unless otherwise specified the conductor shall be supplied as Class B compressed per ASTM B8.

**Insulation** - The insulation is flame-retardant cross-linked polyethylene (RHW-2 or USE-2) extruded concentrically over the conductor to the wall thickness for Type RHW-2 and Type USE-2 as specified in the relevant governing specification.

**Conductor Coding** - Phase identification is provided by number code on each insulated conductor.

**Ground Wire** - One stranded bare copper ground wire will be located in one of the outer interstices.

**Assembly** - Conductors and ground wire are cabled together with a left hand lay and suitable fillers to make the cable round. A binder tape is applied.

**Inner Jacket** - Where specified an inner polyvinyl chloride (PVC) jacket is extruded over the assembly and under the protective armor.

**Armor** - Over the taped assembly there is an interlocking armor of either aluminum or galvanized steel.

**Jacket** - A protective sunlight and ozone resistant jacket of PVC is extruded for a tight fit over the interlocked armor.

## **AVAILABLE OPTIONS:**

- a) Custom ground configurations
- b) CPE jacket.
- c) Aetna 3742 non-halogen, flame resistant, low smoke, low corrosion, non toxic jacket.
- d) (-40°C) PVC jacket.