

## 15-35kV EPR Compact™ PILC Replacement Cable

### Custom Cables



Prysmian's EPR Compact™ medium voltage network cable is an advanced concept in maximizing the power transmitting ability of existing network systems, while minimizing the diameter of traditional solid dielectric cables. Consider EPR Compact™ for PILC-replacement cables where a maximum cable diameter must be observed.

#### Description

Single conductor cable with a compact stranded copper conductor, Strandseal® strand block compound, triple extruded insulation system consisting of a thermosetting semiconducting conductor shield, high dielectric strength high-temperature ethylene propylene rubber (EPROTENAX™) insulation, thermosetting semiconducting insulation shield, soft drawn flat strap concentric neutral wires, water-swellable powder, and an encapsulating linear low-density polyethylene (LLDPE) jacket.

#### Options

- Polypropylene jacket
- Multiplexed cables
- LC Shield™ in lieu of flat straps
- Three-conductor cable with copper tape shields, ground wires, and overall LLDPE jacket.

Because every installation is different, EPR Compact™ cables are specially designed for each customer, for a specific application. Prysmian engineers are ready to provide technical assistance for the design and installation of an EPR Compact™ cable.

For an EPR Compact™ cable quote, please complete and return the attached questionnaire to a Prysmian Customer Service Representative.

#### Design Parameters

**CONDUCTOR:** Solid or Class B Compact concentric strand softdrawn annealed copper per ASTM, filled with Prysmian Strandseal® strand block compound to prevent water from entering the conductor. In network cables, where conductor temperatures are often in excess of 100°C, Strandseal® will prevent steam from traveling along the conductor.

**CONDUCTOR SHIELD:** Extruded thermosetting semiconducting shield which is free stripping from the conductor and bonded to the insulation.

**INSULATION:** Natural high dielectric strength specially-formulated high-temperature EPROTENAX™ (EPR) insulation, exhibiting an optimum balance of mechanical and electrical properties, insuring resistance to treeing. The insulation thickness is based on maximum allowable voltage stress, rather than conventional industry standard insulation thicknesses. This allows for a reduced diameter cable.

**INSULATION SHIELD:** Extruded thermosetting semiconducting shield with controlled adhesion to the insulation providing the required balance between electrical integrity and ease of stripping.

**METALLIC SHIELD:** Helically applied copper flat strap concentric neutral wires applied over the insulation shield. Using flat concentric neutral wires allows Prysmian to further reduce the diameter, enabling EPR Compact™ cables to fit into existing network ducts. Water-blocking agents are applied over the insulation shield and around the neutral wires to prevent longitudinal water migration.

**JACKET:** Black sunlight resistant linear low-density polyethylene (LLDPE) encapsulating the neutral wires.

#### Specifications and ratings

ICEA - ICEA S-94-649 (testing ONLY)

AEIC - AEIC CS8 (testing ONLY)

ICEA - ICEA T-31-610

ICEA - ICEA T-34-664

For 105°C continuous, 140°C emergency, 250°C short-circuit operation.

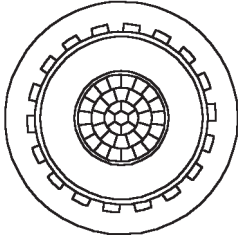
#### Prysmian Group

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Please complete the following questionnaire. To ensure the best design for the application, we ask that you answer all questions. Additional information may be required.

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### DESIGN

Conductor Size: \_\_\_\_\_

Conductor Metal: \_\_\_\_\_

Phase-to-Phase System Voltage: \_\_\_\_\_

Duct Shape: \_\_\_\_\_

Duct Inside Dimensions: \_\_\_\_\_

Available Fault Current (per cable): \_\_\_\_\_

Fault Current Duration: \_\_\_\_\_

Cable Design Preference:

3-1/C Flat Strap \_\_\_\_\_

3-1/C LC Shield \_\_\_\_\_

3/C CTS with Ground Wires \_\_\_\_\_

NOTE: if the cable needs to be designed to an ampacity rating, additional information will be required.

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