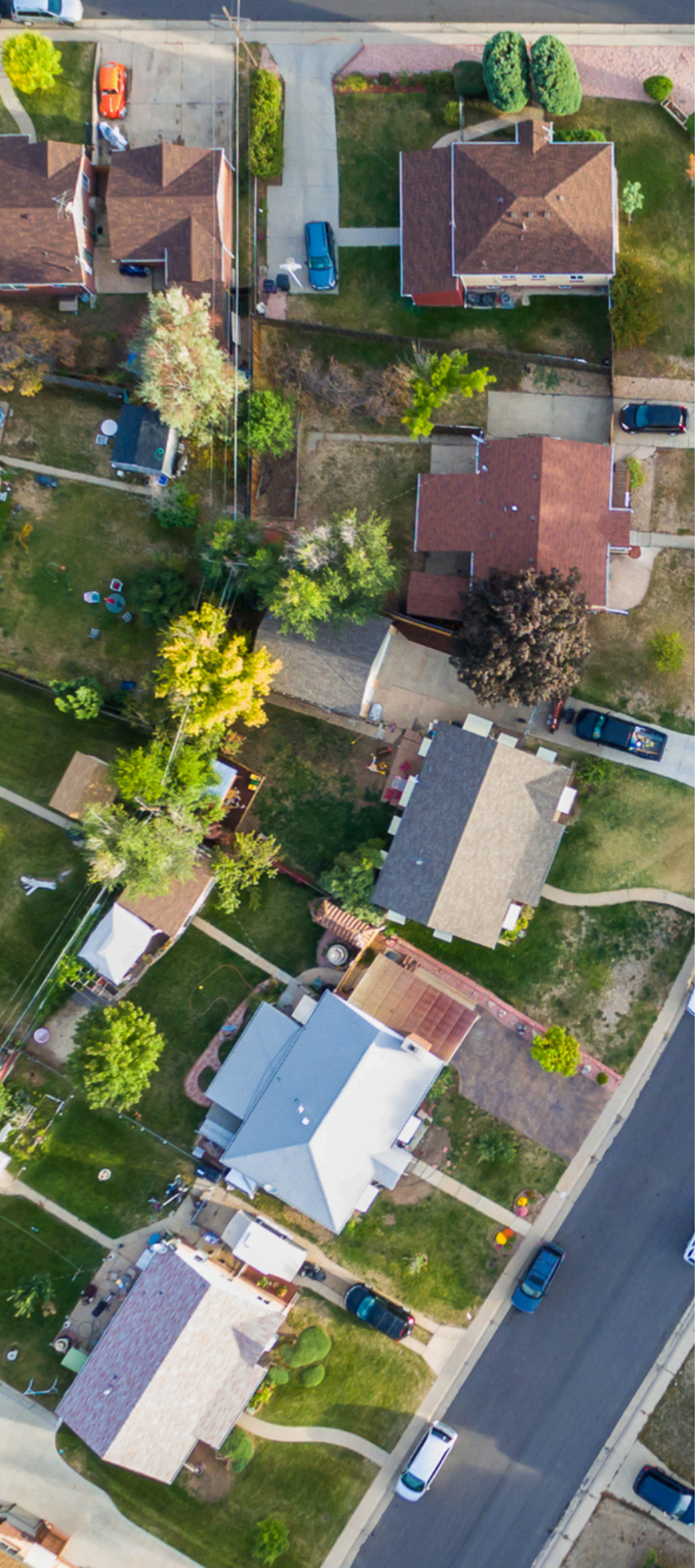


AWG
AMERICAN WIRE GROUP
EMPOWERING A BETTER WORLD

PowerGuard® Medium Voltage EPR Cables

5 kV - 35 kV

AWG's PowerGuard® Medium Voltage EPR Cables are engineered to deliver consistent and reliable performance across critical electrical infrastructure ranging from 5 kV to 35 kV. These cables are designed for use in utility distribution, industrial plants, renewable energy projects, and data centers, where long-term durability, electrical integrity, and operational safety are paramount.

Our PowerGuard® EPR cables come in two constructions: 5-35 kV Copper Tape Shield MV-105 and 15-35 kV Primary Underground Distribution Concentric Neutral.

PowerGuard® cables are intended for use in wet or dry locations for distribution of single or three phase medium voltage power. These cables may be installed in ducts, exposed to sunlight or direct buried.

PowerGuard® Medium Voltage EPR cables are available in both copper and aluminum conductor options to meet a range of project needs and budget requirements. These cables are built to meet or exceed UL and ASTM standards.

www.buyawg.com

Empowering a Better World with PowerGuard® Cable Systems

Copper Tape Shield VS Concentric Neutral: Let's Compare

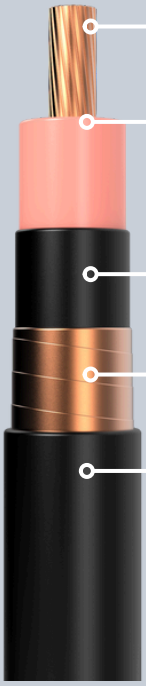
COPPER TAPE SHIELD

CTS construction consists of one or more helical layers of copper tape wrapped over the insulation shield of the conductor. It provides a uniform electric field, controls voltage stress, and serves as a ground path for fault currents. These cables may be installed in ducts, exposed to sunlight or direct buried. Sizes 1/0 AWG and larger are approved for use in cable tray, marked "FOR CT USE".

CONCENTRIC NEUTRAL

CN construction features multiple bare copper wires (helically wound) evenly spaced around the cable core. To enhance long-term reliability, water-blocking agents are applied over the insulation shield and around the concentric neutral wires, forming a barrier that resists longitudinal water penetration and protects the cable core from moisture ingress over its service life. These cables may be installed in ducts, exposed to sunlight or direct buried.

Medium Voltage EPR Construction



Conductor

Compressed concentric stranded copper or aluminum.

Compressed concentric stranded copper or aluminum. Stranded conductors are water-blocked with conductor filling compound.

Conductor Shield

Extruded thermosetting semiconducting cross-linked polyethylene (XLPE) shield which is free stripping from the conductor and bonded to the insulation.

Insulation

Extruded, Ethylene Propylene Rubber (EPR) - 100% or 133% insulation level.

Insulation Shield

Extruded thermosetting semiconducting cross-linked polyethylene (XLPE) shield with controlled adhesion to the insulation providing the required balance between electrical integrity and ease of stripping.

Metallic Shield

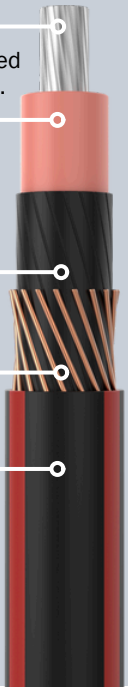
Flat, uncoated 5 mil thick copper tape helically applied with a minimum 25% overlap.

Solid bare annealed copper wires helically applied and uniformly spaced.

Outer Jacket

A polyvinyl chloride (PVC) jacket is extruded over the copper tape shield. The jacket shall be free-stripping and not interfere with the contact between the flat copper tape and the underlying extruded insulation shield. The jacket is sunlight resistant and marked. The jacket shall contain a print legend marking, and sequential length (meter or feet) marking.

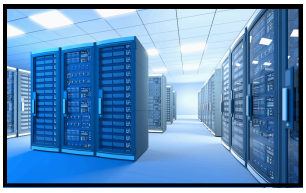
An extruded-to-fill black non-conducting cross-linked polyethylene (XLPE) jacket. The jacket shall be free-stripping and not interfere with an intimate contact between the neutral wires and the underlying extruded insulation shield. The jacket is sunlight resistant and marked. The jacket shall contain a print legend marking, sequential length (meter or feet) marking and three longitudinal extruded red stripes.



Markets

PowerGuard® Medium® Voltage EPR Cables are ideal for use in utility distribution systems, renewable energy projects, industrial power networks, and data center infrastructure. Their robust design supports demanding applications where reliability, efficiency, and long-term durability are essential.

Utility



Data Center

Industrial

Renewable Energy

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