



PowerGuard® Cable Systems

**15 kV, 25 kV, 35 kV
Medium Voltage Solutions**

AWG's PowerGuard® Medium Voltage underground power cables are a vital component of modern electrical distribution systems, seamlessly delivering electricity in the range of 15 kV to 35 kV to residential, commercial, and industrial areas.

PowerGuard® cables are designed to be buried beneath the ground, offering numerous advantages such as reduced visual impact, enhanced safety, and protection from environmental factors. Typically insulated with materials such as cross-linked polyethylene (XLPE) or ethylene propylene rubber (EPR), these cables ensure efficient power transmission while minimizing the risk of electrical leakage and interference.



With their robust construction and ability to handle varying loads, medium voltage underground power cables play a pivotal role in maintaining a reliable and steady supply of electricity, contributing to the modernization and sustainability of our energy infrastructure.

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Empowering a Better World with PowerGuard® Cable Systems

Utility vs Renewable Energy: Let's Compare

UTILITY

Utilities typically install extruded dielectric cable in new installations and to replace existing aging infrastructure. Usually there is existing space constraints so things like utilizing copper, compact stranding, flat strap neutral and copper tape shield to fit into existing duct banks or conduits is preferred.

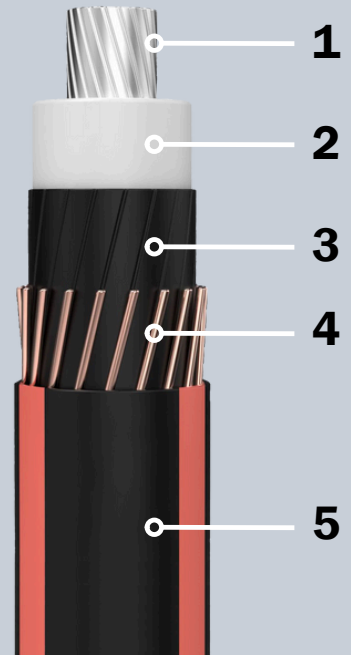


RENEWABLE ENERGY

Renewable energy application is typically direct buried where space is not as much of a concern. This allows for the cost-effective aluminum alternative to copper, compressed or compact stranding, even though it takes up more space. Metallic shield can be made in varying designs with round wire neutrals being the most common.

Medium Voltage Construction

- 1. Conductor** Compact stranded or compressed concentric stranded aluminum alloy 1350 wire, or annealed copper wire
- 2. Conductor Shield** Extruded thermosetting semiconducting shield which is free stripping from the conductor and bonded to the insulation.
- Insulation** Extruded, thermosetting insulation layer. Tree-retardant cross-linked Polyethylene (TR-XLPE) or Ethylene Propylene Rubber (EPR)
- 3. Insulation Shield** Extruded thermosetting semiconducting shield with controlled adhesion to the insulation providing the required balance between electrical integrity and ease of stripping
- 4. Metallic Shield** Solid bare annealed copper wires helically applied and uniformly spaced. Additional metallic shield configurations available to meet a wide range of applications
- 5. Outer Jacket** An extruded-to-fill black polymer jacket. Jackets are produced with a range of options, such as sunlight resistant and flame propagation resistance. The jacket contains a print legend marking and sequential length marking



PowerGuard® Accessories

Along with PowerGuard® cable products, we also offer accessories such as splices, arresters, connectors, and more, making this a complete system.



Medium & Large
Compression
Terminals



T-Body Kits



Elbow Arresters



Termination Cold
Shrink/Heat
Shrink



MV Splices



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