36(42) kV Bolted Tee Connectors for IEC Rated Wind Farm Applications

Meet higher voltage ratings and larger cable diameters – up to 800 mm^2 – with screened bolted tee connectors, ideal for use in harsh off-shore wind farm environments where long runs and large cable are required.

Meet Higher Voltage Demand and Larger Cable Diameter Sizes with the New 36(42) kV Bolted Tee Connectors from Cooper Power Systems

The 1250 A, 36(42) kV class screened bolted tee connector from Cooper Power Systems connects single- and three-core polymeric cable to switchgear, transformers, motors, and other equipment with a premoulded separable connector that can be used for both indoor and outdoor installations. It is especially suited for the harsh off-shore wind farm environment where long runs and large cable are required.

Cooper Power Systems has more than 40 years of experience moulding and designing underground separable connectors. Mixing and blending its EPDM rubber and insulation formulation in-house ensures quality standards. In addition, all of our products go through a multi-stress test.

Meets Higher Voltage Demand

- 36(42) kV Rating
  - Separable connectors can handle the full range of voltage classes and cable sizes used on IEC rated wind farms
  - Increased range of system voltages, now to 36(42) kV when installed on CENELEC type C_1 – 630 A and type C_2 – 1250 A specified up to 42 kV
  - Meets 200 kV Basic Impulse Level (BIL)

Companion Tee Connector

Bolted Tee Connector

Meets Larger Cable Diameter Size Requirements

- 800 mm^2 Cable Entrance
  - Accepts up to 800 mm^2 cable when larger capacity is required in wind farm construction

Increased Reliability

- Fully Submersible
  - Fully submersible with Ethylene Propylene Diene Monomer (EPDM) Rubber housing
  - Longer performance in an underwater environment if flooding should occur
  - Multi-Stress Tested for 3000 hours in 90 °C water to verify reliable long-term performance in harsh, wet environments.

Increased Safety

- Built-in Capacitive Test Point
  - Built-in capacitive test points ensure equipment is de-energized for added safety
  - Option available on bolted tee and companion tee
- Fully Screened
  - Moulded EPDM semi-conductive rubber external screen
  - 3mm thick conductive EPDM jacket adds protection and safety to personnel handling the equipment

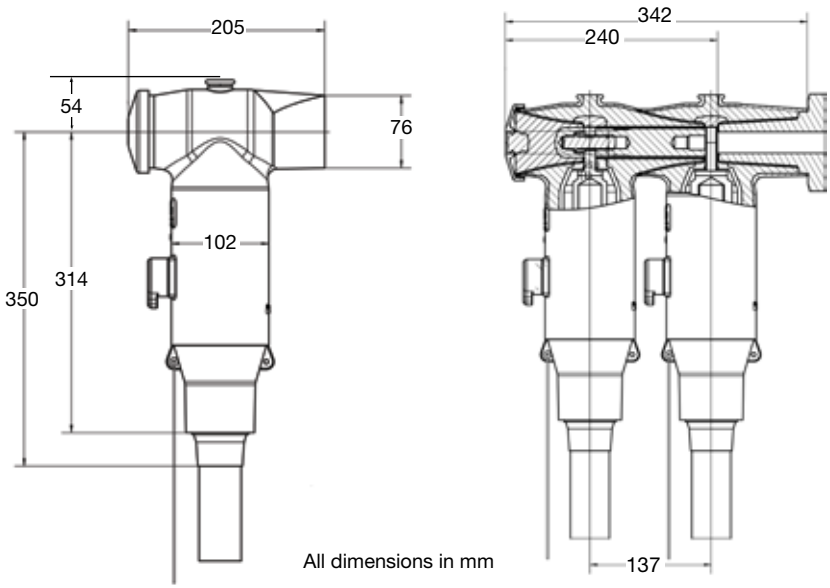
Compact, Easy to Install Design

- Compact design easily fits into most switchgear cabinets
- Choose from compression or mechanical (shear bolt) cable lugs to best fit your installation needs

36(42) kV Bolted Tee

Compact design easily fits into most switchgear cabinets

1. EPDM semi-conductive material and insulation
2. Basic insulating plug with cap
3. Compression or mechanical (shear bolt) lug
4. Connecting rod with clamping screw
5. CENELAC Interface C bushing (not included)
6. Companion tee connector (Optional)
7. Bolted tee connector
8. Capacitive Test Point (Optional)
9. Cable Adapter



All dimensions in mm

Design Tests

- Tested to CENELEC HD 629.1 S2
- Type C interface as described in by CENELEC EN 50180 and 50181
- Max Voltage (U_m): 42 kV
- Basic Impulse Level: 200 kV
- AC Voltage Withstand: 93.5 kV
- Continuous Current: 1250 A
- Short Circuit, 3 sec.: 45 kA

Tested according to Cooper Power Systems requirements:

- Multi-Stress Test - 3000 hrs @ 1.5 times the line to neutral voltage in 90 °C water

Production Tests

- AC Voltage Withstand 50Hz, 1 min: 75 kV
- Partial Discharge: Extinction @ 36 kV: <5 pC
- Test Point Voltage
- X-ray

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