Meet higher voltage demand and larger cable diameter sizes

Meet higher voltage ratings and larger cable diameters—up to 800 mm²—with Eaton's Cooper Power™ series screened bolted tee connectors, ideal for use in harsh off-shore wind farm environments where long runs and large cable are required.

The 1250 A, 36 (42) kV class screened bolted tee connector from Eaton 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.

Eaton 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)

Meets larger cable diameter size requirements

- 800 mm² cable entrance
  - Accepts up to 800 mm² 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
  - 3 mm thick conductive EPDM jacket adds protection and safety to personnel handling the equipment

Compact, easy to install

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

Companion tee connector (L) and bolted tee connector (R)

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Design tests

- Tested to CENELEC HD 629.1 S2
- Type C interface as described in CENELEC EN 50180 and 50181
- Maximum 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

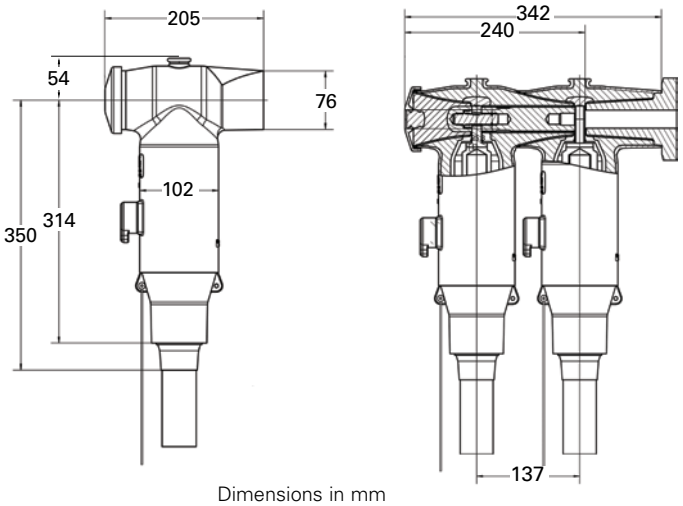
Tested according to Eaton's requirements:

- Multi-stress test
  - 3000 hrs at 1.5 times the line to neutral voltage in 90 °C water

Production tests

- AC voltage withstand 50 Hz, 1 min: 75 kV
- Partial discharge: extinction at 36 kV: <5 pC
- Test point voltage
- X-ray

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. CENELEC Interface C bushing (not included)
6. Companion tee connector (optional)
7. Bolted tee connector
8. Capacitive test point (optional)
9. Cable adapter



Dimensions in mm

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For Eaton's Cooper Power series product information, visit **www.eaton.com/cooperpowerseries**

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