

# 630 A deadbreak bolted tee connector - interface C



## **DTB624 – 24 kV applications**

### **Related products**

- DRC400 Receptacle Cap
- DTS624 Bolted Tee Connector
- DPC400 Connecting Plug

### **Installation**

- No special tools, heating, taping, or potting are required
- Connector may be energized immediately after installation on its mating part
- Mates with DTS624 Bolted Tee Connector (see Catalog Section I550-36)

### **Application**

- For connection of extruded polymeric cable to transformers, switchgear, motors and other equipment with a premoulded separable connector
- For indoor and outdoor installations
- System voltage up to 24 kV
- Continuous current 630 A (900 A overload for 8 hours)
- Cable particulars:
  - Extruded polymeric cable (XLPE, EPR, etc.)
  - Copper or aluminum conductors
  - Semiconducting or metallic screens
- Conductor size: 12 kV 70-400 mm<sup>2</sup>  
24 kV 25-400 mm<sup>2</sup>

### **Features**

- Provides a fully screened and fully submersible separable connection when mated with the proper bushing or plug
- Built-in capacitive test point allows for an easy check of the circuit status or installation of a fault indicator
- No minimum phase clearance requirements
- Mounting can be vertical, horizontal, or any angle in between
- 100% factory tested
  - AC Withstand
  - Partial Discharge

### **Standards**

- Meets the requirements of IEC 60502-4 and CENELEC HD 629.1 S2

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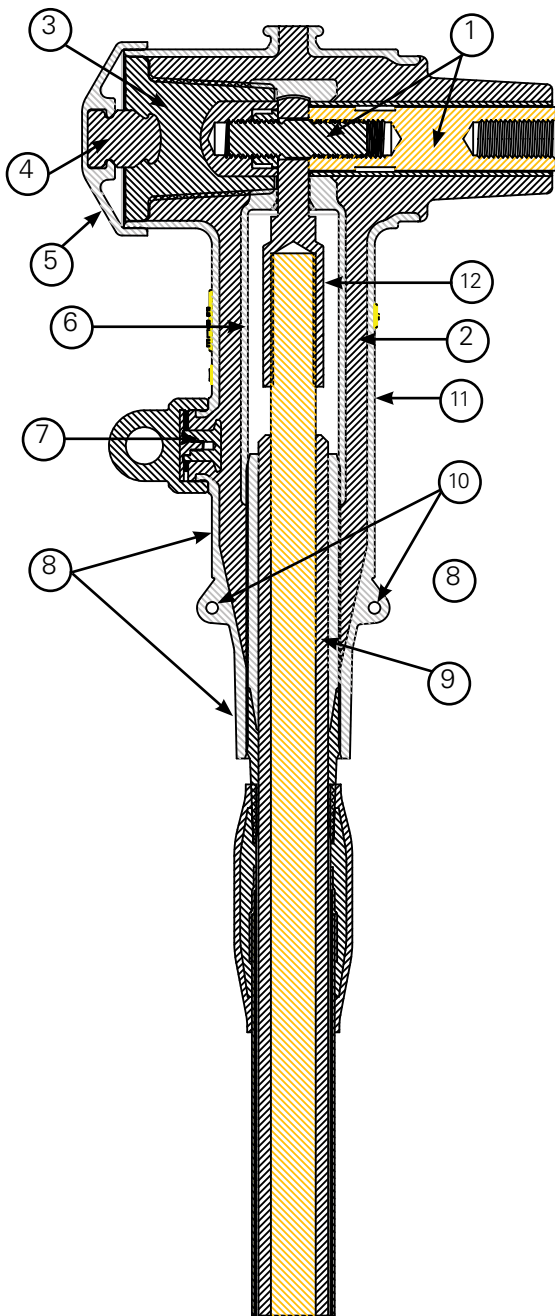
**Quality assurance**

- Our manufacturing facility is registered to ISO 9001 by third party audit
- Required Production Tests
- Periodic X-Ray Analysis

**Packaging**

- Supplied in a kit with all necessary parts, approximate weight 3 kg

**Features and detailed description**



**Table 1. Electrical Ratings**

	<b>DTB624</b>
Maximum System Voltage ( $U_m$ )	24 kV
Impulse	125 kV
AC Withstand (5 min.)	54 kV
Continuous Current	630 A
Overload (8 hrs. Max.)	900 A
Short Circuit Withstand, 1 sec. (rms sym)	35 kA

**Notes:** Ratings are based on IEC Standards and do not reflect maximum capability.

- 1. Clamping Screw and Connecting Rod**  
Tin-plated copper screw secures the conductor contact to the bushing.
- 2. Insulation**  
Moulded EPDM insulating rubber is formulated and mixed in-house to ensure high quality.
- 3. Basic Insulating Plug**  
Moulded epoxy part has a threaded metal insert to accept the clamping screw.
- 4. Capacitive Test Point**  
Capacitive test point provides means to check circuit status.
- 5. Rubber Cap**  
Moulded EPDM conducting rubber cap protects and earths the test point during normal operation.
- 6. Internal Screen**  
Moulded EPDM conducting rubber screen controls electrical stress.
- 7. Capacitive Test Point (Optional)**  
Provides a means to mount a fault indicator. A moulded EPDM conducting rubber cap provides a watertight seal.
- 8. Stress Relief**  
The configuration of the outer screen and the cable adapter provide cable stress relief.
- 9. Cable Adapter**  
The sized opening provides an interference fit to maintain a watertight seal and provides the initial cable stress relief.
- 10. Earthing Eyes**  
Moulded into the external screen for connection of an earthing wire.
- 11. External Screen**  
Moulded EPDM conducting rubber mates with the cable screen to maintain screen continuity and ensure that the assembly is at earth potential.
- 12. Conductor Contact**  
Inertia welded bimetallic compression connector accepts copper or aluminum conductors.

**Figure 1. 630 A, 24 kV Class DTB624 deadbreak tee connector.**

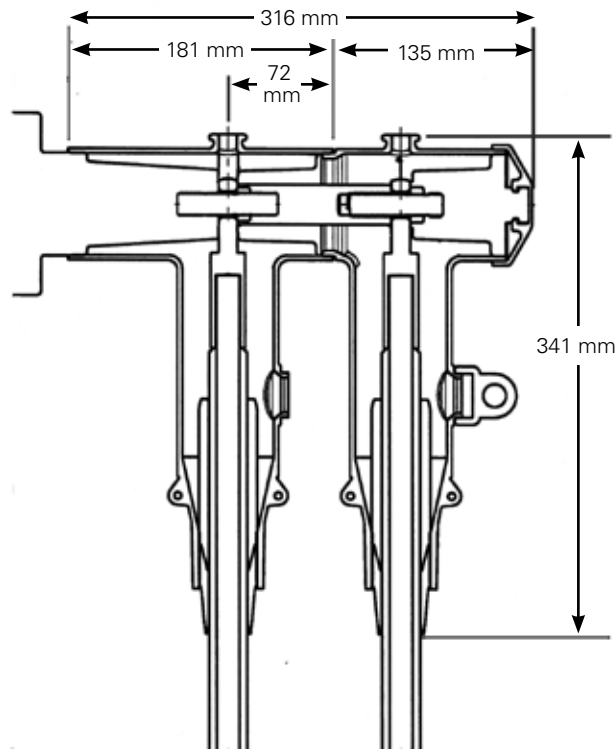


Figure 2. DTB624 deadbreak tee connector dimensional information.

**Kit contents**

The complete kit includes 1 each moulded tee housing, cable adapter, conductor contact, connecting rod, clamping screw, silicone lubricant, and installation instructions.

**Notes:** The insulating plug and rubber cap are supplied with the mating DTS624 tee connector.

**Ordering information**

The complete catalog number for the tee connector is DTB624RC.

R is the cable range designation and C is the conductor contact code. Select the cable range designation from Table 2. Select the conductor contact code from Table 3 for the conductor size and type of connector required.

Table 2. Cable Insulation Range

Insulation Range Designation	Cable Insulation Range Ø (mm)	
	Min.	Max.
AA	13.5	17.2
A	16.3	19.3
B	18.3	21.0
C	20.0	24.1
D	23.1	27.0
E	25.6	29.0
F	27.7	32.6
G	30.9	36.2
H	34.0	39.5

**Optional Test Point**

If a test point on the tee body is required, add a "T" at the end of the catalog number.

Example: DTB624F240T

**Ordering Example:** For 20 kV cable, 240 mm<sup>2</sup> aluminum conductor, 31.0 mm core insulation diameter, DIN connector, specify DTB624F240.

**Cable seal adapters are ordered separately.**

Table 3. Conductor Code

Stranded Conductor Size (mm <sup>2</sup> )	DIN Type	EDF Type
25	25	E25
35	35	E35
50	50	E50
70	70	E70
95	95	E95
120	120	E120
150	150	E150
185	185	E185
240	240	E240
300	300	-
400	400	-

**Notes:** Bimetallic connectors can be used with aluminum or copper conductors.

**Eaton**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
Eaton.com

**Eaton's Cooper Power Systems Division**  
2300 Badger Drive  
Waukesha, WI 53188  
Eaton.com/cooperpowerseries

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