

630 A Deadbreak Bolted Tee Connector

DTB624 – 24 kV Applications



Figure 1.
630 A Deadbreak Bolted Tee Connector.

RELATED PRODUCTS

- DRC400 Receptacle Cap

INSTALLATION

- No special tools, heating, taping, or potting are required.
- Connector may be energised immediately after installation on its mating part.
- Mates with bushings, plugs, and junction devices complying with the listed standards.

APPLICATION

- For connection of 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:
 - Polymeric cable (XLPE, EPR, etc.)
 - Copper or aluminum conductors
 - Semiconducting or metallic screens
- Conductor size: 12 kV 70-400 mm²
24 kV 25-400 mm²

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.

STANDARDS

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

QUALITY ASSURANCE

- Our manufacturing facility is registered to ISO 9001-2000 by third party audit.
- Required Production Tests
- Periodic X-Ray Analysis

PACKAGING

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

TABLE A
Electrical Ratings

	DTB624
Maximum System Voltage (Um)	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

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

Features and Detailed Description

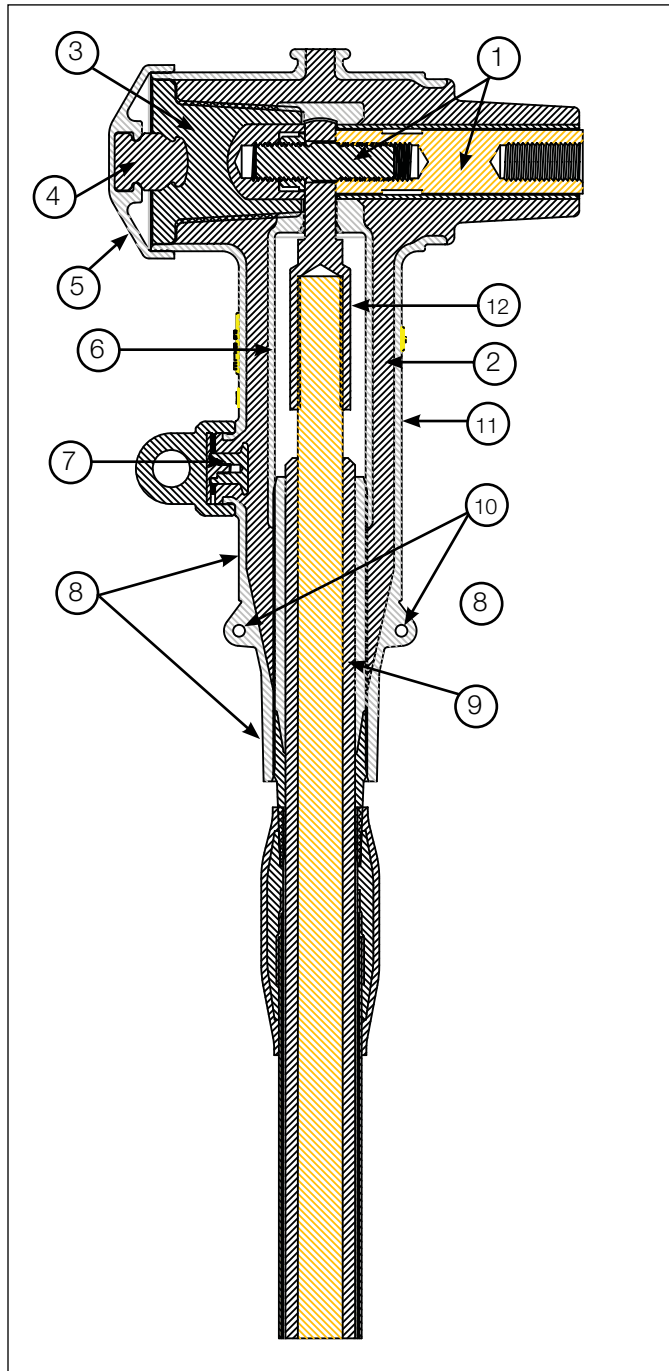


Figure 2.
630 A, 24 kV Class DTB624 Deadbreak Tee Connector.

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.

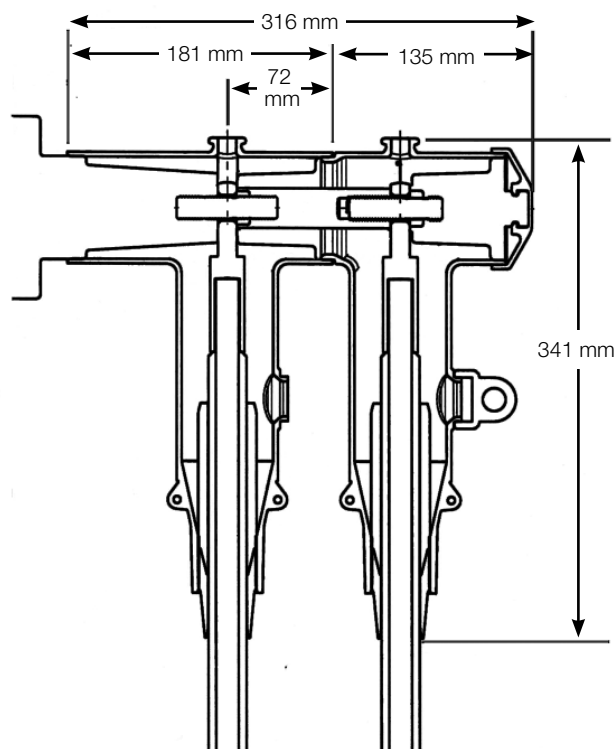


Figure 3.
DTB624 Deadbreak Tee Connector dimensional information.

KIT CONTENTS

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

NOTE: 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 R. Select the conductor contact code from Table C for the conductor size and type of connector required.

TABLE R
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	24.9	28.9
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 mm² aluminum conductor, 31.0 mm core insulation diameter, DIN connector, specify DTB624F240.

Cable seal adapters are ordered separately.

TABLE C
Conductor Code

Stranded Conductor Size (mm ²)	DIN Type	EDF Type	DIN All Copper
25	25	E25	C25
35	35	E35	C35
50	50	E50	C50
70	70	E70	C70
95	95	E95	C95
120	120	E120	C120
150	150	E150	C150
185	185	E185	C185
240	240	E240	C240
300	300	-	C300
400	400	-	C400

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

