

DTB1242 Bolted Companion Tee Connector



Figure 1.
1250 A Deadbreak Bolted Companion Tee Connector.

INSTALLATION

- No special tools, heating, taping, or potting are required
- Connector may be energized immediately after installation on its mating part
- Mates to bolted tee connector DTS1242

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 42 kV
- Continuous current rating up to 1250 A when installed on an appropriate equipment bushing
- Cable particulars:
 - Polymeric cable (XLPE, EPR, etc.)
 - Copper or aluminum conductors
 - Semiconducting or metallic screens
- Conductor size: 24 kV 120-800 mm²
36 kV 95-800 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
- Available with either DIN compression lugs or mechanical (shear bolt) lugs
- 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 by third party audit
- Required Production Tests
- Periodic X-Ray Analysis

TABLE 1
Electrical Ratings

	DTB1242
Max. Rated System Voltage (U_m)	42 kV
Basic Impulse Level	200 kV
AC Voltage Withstand (5 min.)	93.5 kV
DC Voltage Withstand (15 min.)	125 kV
Continuous Current	1250 A
Thermal Short Circuit, 3 sec.	45 kA
Dynamic Short Circuit	100 kA

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

Features and Detailed Description

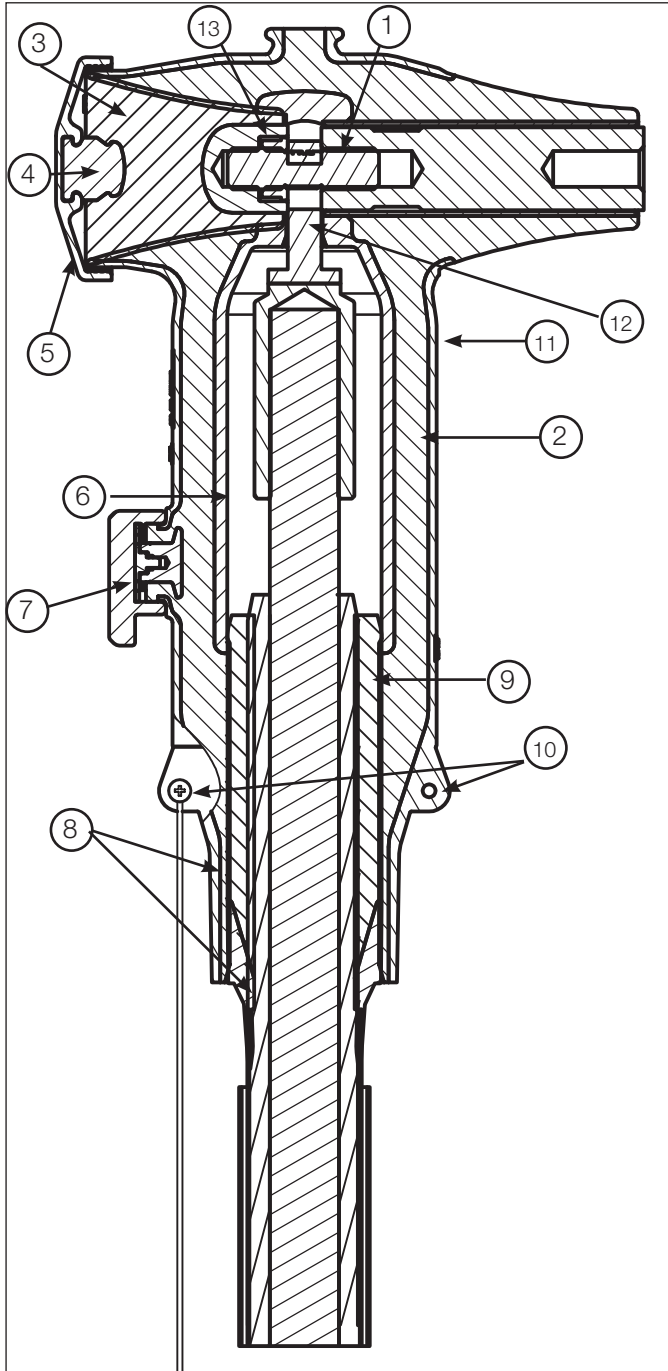


Figure 2.
1250 A, 42 kV Class DTB1242 Bolted Companion Tee Connector.

1. Clamping Screw

Tin-plated brass screw and copper connecting rod secures the bolted tee conductor contact with 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)

Capacitive test point provides means to check circuit status. 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 provides protective deadfront shield.

12. Conductor Contact

Inertia welded bimetallic compression or mechanical (shear bolt) lug accepts copper or aluminum conductors.

13. Clamping Nut

The plated brass nut secures the companion tee conductor contact with the bolted tee.

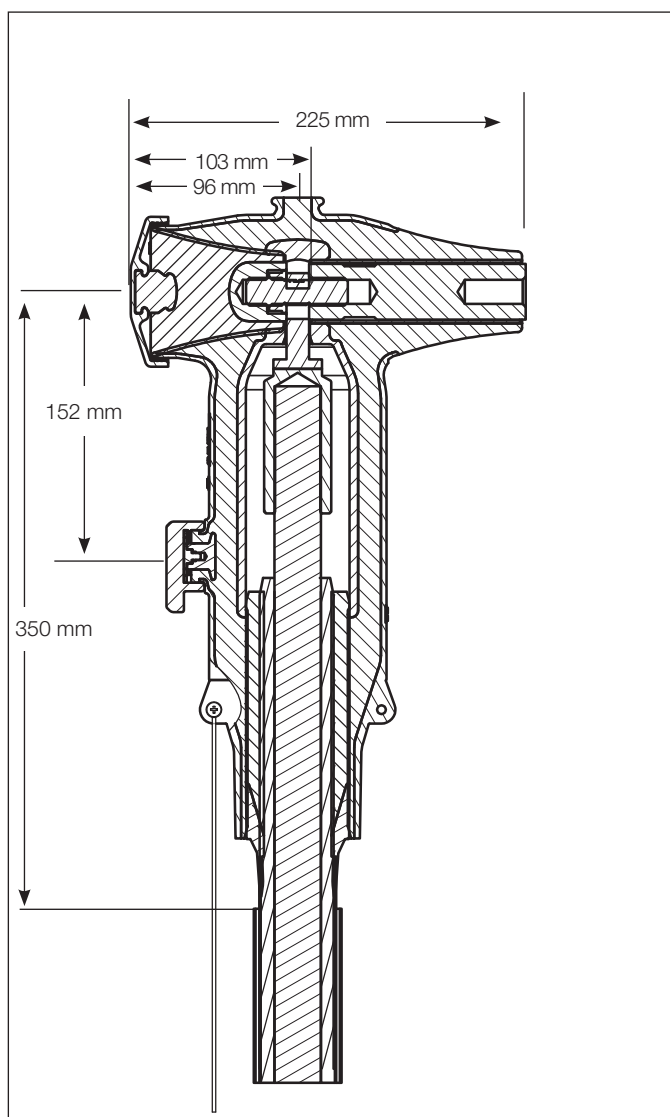


Figure 3.
DTB1242 Bolted Companion Tee Connector dimensional information.

KIT CONTENTS

The complete kit includes: moulded tee housing, cable adapter, conductor contact, insulating plug, rubber cap, clamping screw, lubricant, wipers and installation instructions.

TABLE 2
Cable Range

Insulation Range Designation	Cable Insulation Range Dia. (mm)	
	Min.	Max.
A	28.2	32.3
B	31.1	35.7
C	35.0	39.1
D	37.2	41.6
E	40.1	44.8
F	42.9	47.9
G	46.5	51.9
H	50.0	56.0

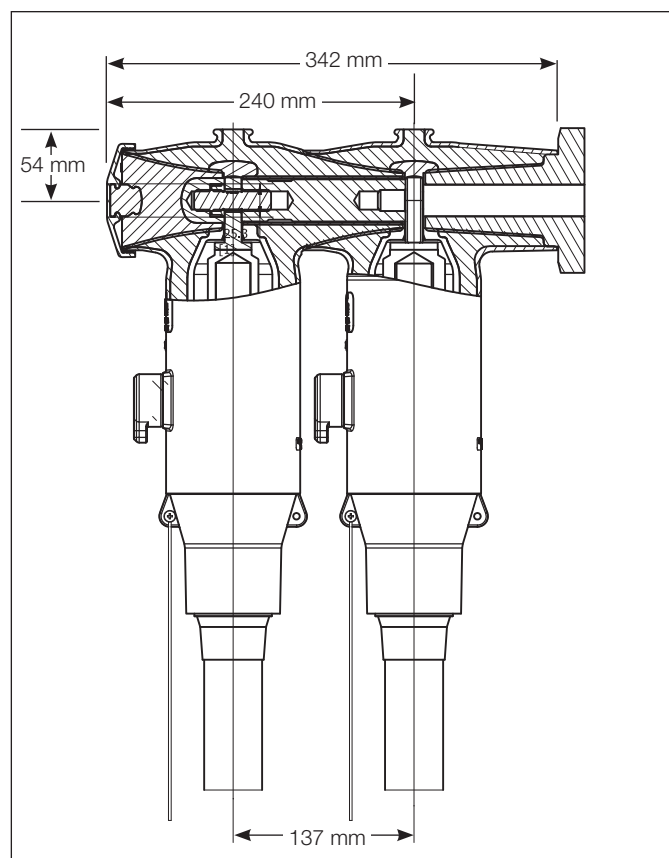


Figure 4.
Bolted Companion Tee Connector.

ORDERING INFORMATION

To order a 42 kV bolted companion tee connector, use the Catalog Number Section Guide, on page 4 and select the cable insulation range from Table 2, which gives you the best centering of the insulation diameter and then select the conductor size from Table 3.

Ordering Example: For a 36 kV drain wire shielded cable with a 500 mm² aluminum conductor, 44 mm core insulation diameter and a DIN style crimp connector in a single-phase kit with a test point, including the cable sealing kit, specify **DTB1242FU500N1T1**.

TABLE 3
Conductor Size

Conductor Size			
Conductor Size (mm²)	DIN Type	Mechanical Type	
95	U095		
120	U120	S300	
150	U150		
185	U185		
240	U240		
300	U300		
400	U400		
500	U500		S630
630	U630		
800	-	S800	

Catalog Number Selection Guide

