DTS1242 bolted tee connector - interface C

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 mm^2
  36 kV 95-800 mm^2

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

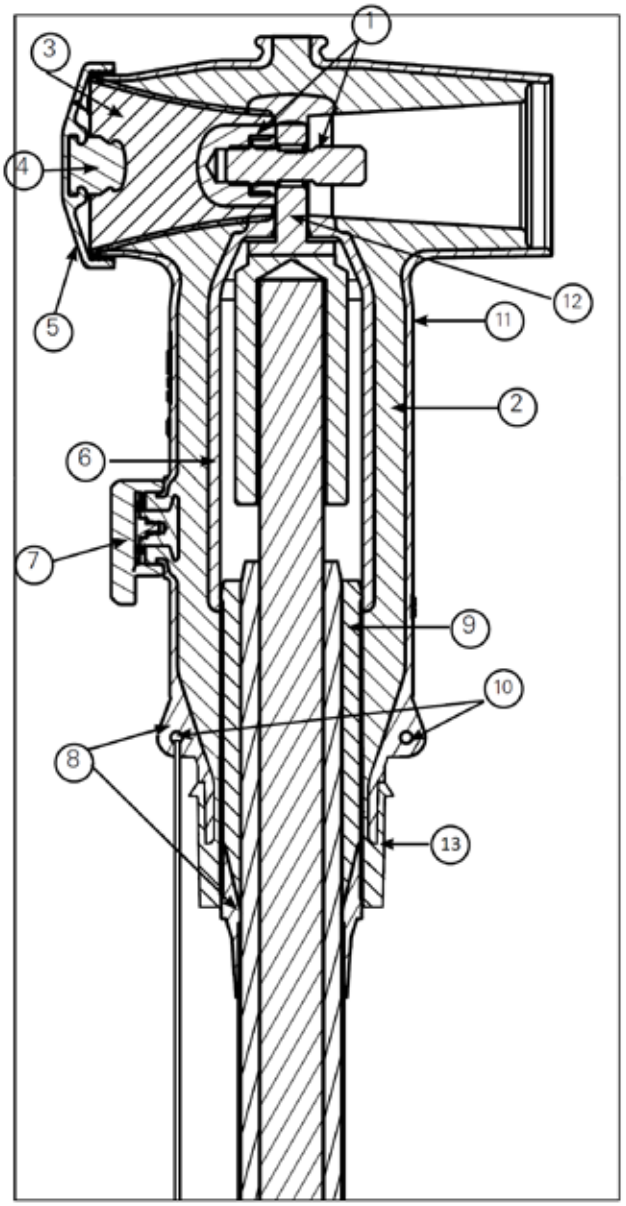
Quality assurance

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

Installation

- No special tools, heating, taping, or potting are required
- Connector may be energized immediately after installation on its mating part
- Mates with bushings, plugs, and junction devices complying with CENELEC EN 50180 and 50181

Features and detailed description



1. Clamping Screw

   Tin-plated brass screw and brass nut 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 a 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. Screen Break

    Insulation added to the outer screen to provide a screen break for cable screen testing.

Figure 1. 1250 A, 42 kV Class DTS1242 bolted tee connector.

Table 1. Electrical Ratings

	DTS1242
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.

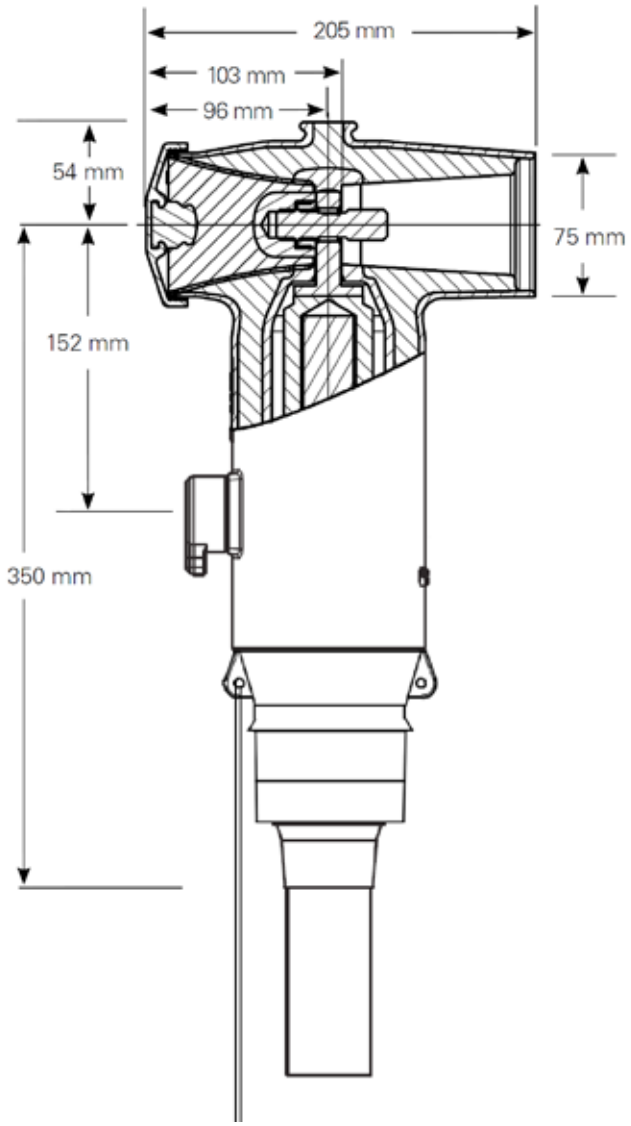


Figure 2. DTS1250 bolted tee connector dimensional information.

Kit contents

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

Ordering information

To order a 42 kV bolted 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 **DTS1242FU500N1T1SB**.

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

Table 3. Conductor Size

Conductor Size (mm^2)	DIN Type	Mechanical Type
95	U095	S150
120	U120	
150	U150	S300
185	U185	
240	U240	
300	U300	
400	U400	S400
500	U500	S630
630	U630	
800	-	S800

Catalog number selection guide

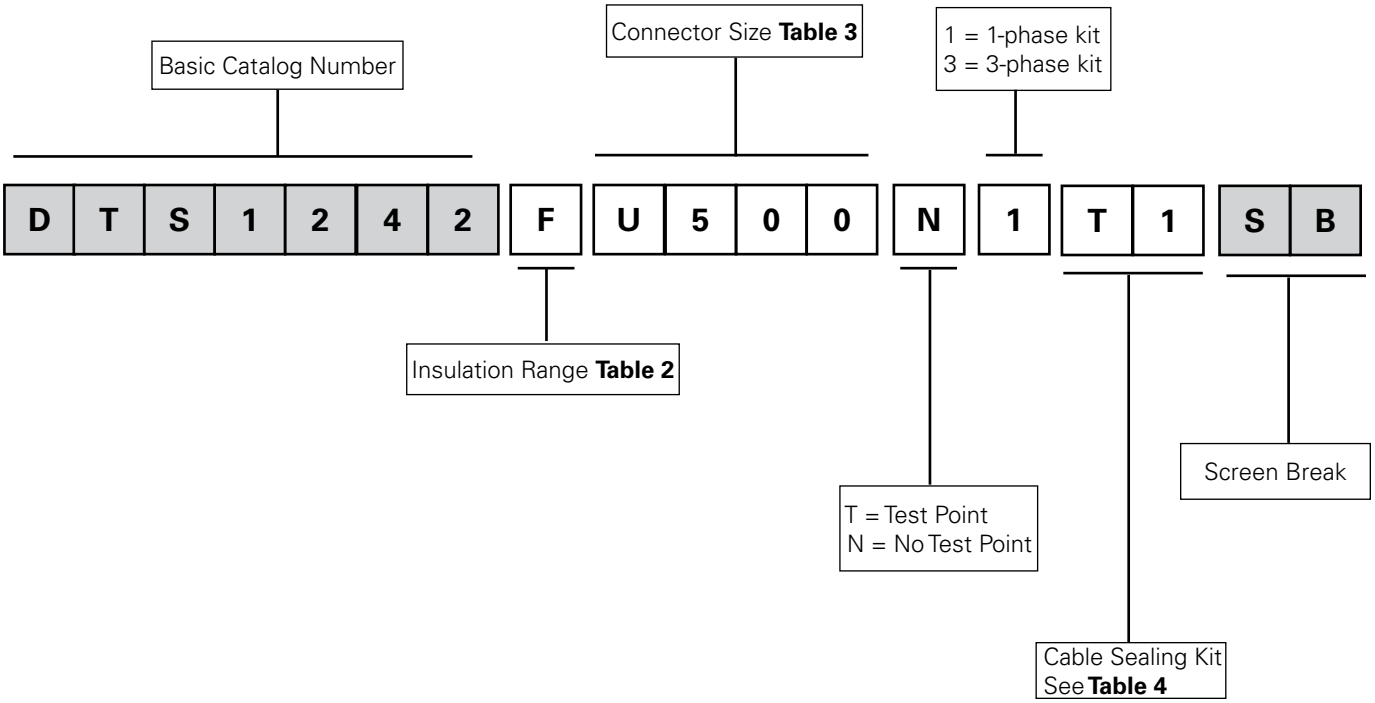


Table 4. Cable Sealing Kits

	Description
00	No sealing kit required
T1	Basic tape kit with sealing mastic and tape for one single core cable with copper screen wires (3 tape kits included with 3-phase kit)

Note: For other cable sealing kits, please contact your Eaton representative.

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