630A Deadbreak Sliding Tee Connector – Interface B

DTS636SO – 36kV applications

Related products

- DRC400/436 Receptacle Cap
- DB630-36 Deadbreak Bushing

Installation

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

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 36 kV
- Continuous current up to 630 A
- Cable particulars:
  - Extruded polymeric cable (XLPE, EPR, etc.)
  - Copper or aluminum conductors
  - Semiconducting or metallic screens
- Conductor size: 36 kV 35 - 500 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 or installation of a fault indicator
- No minimum phase clearance requirements
- Mounting can be vertical, horizontal, or any angle in between
- 100% factory tested
  - X-ray Test
  - AC Withstand
  - Partial Discharge

Standards

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

Powering Business Worldwide

Features and detailed description

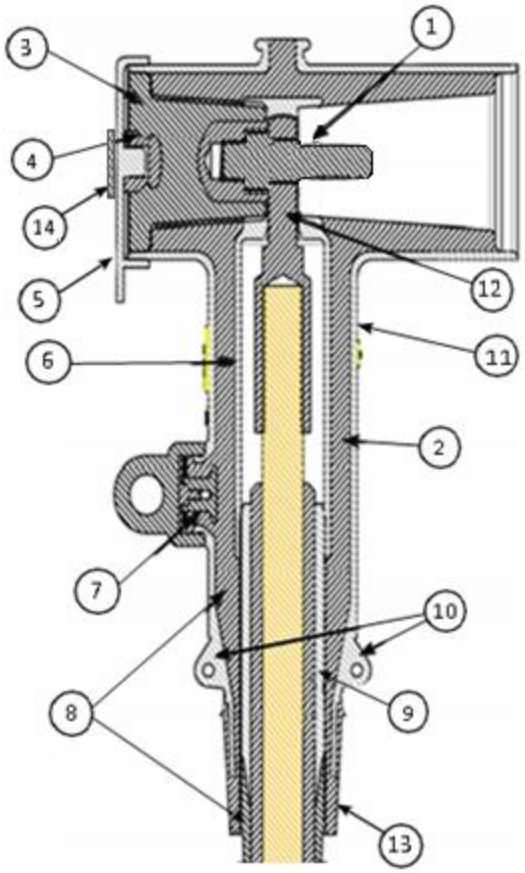

Figure 1. DTS636 deadbreak Sliding tee connector.

1. Clamping Screw

   Tin-plated brass 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, includes pulling eye

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 provides an external screen at earth potential for operator safety

12. Conductor Contact

    Inertia welded bimetallic compression connector accepts copper or aluminum conductors

13. Screen Break

    Insulation added to the outer screen to provide a screen break for cable screen testing. Also available without screen break.

14. Bail Assembly

    Hold Tee and cable on the bushing

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

Table 1. Electrical Ratings

	DTS636SO
Maximum System Voltage (U_m)	36 kV
Impulse	170 kV
AC Withstand (5 min.)	81 kV
Continuous Current	400A/630 A
Short Circuit Withstand, 1 sec. (rms sym)	43.7 kA

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

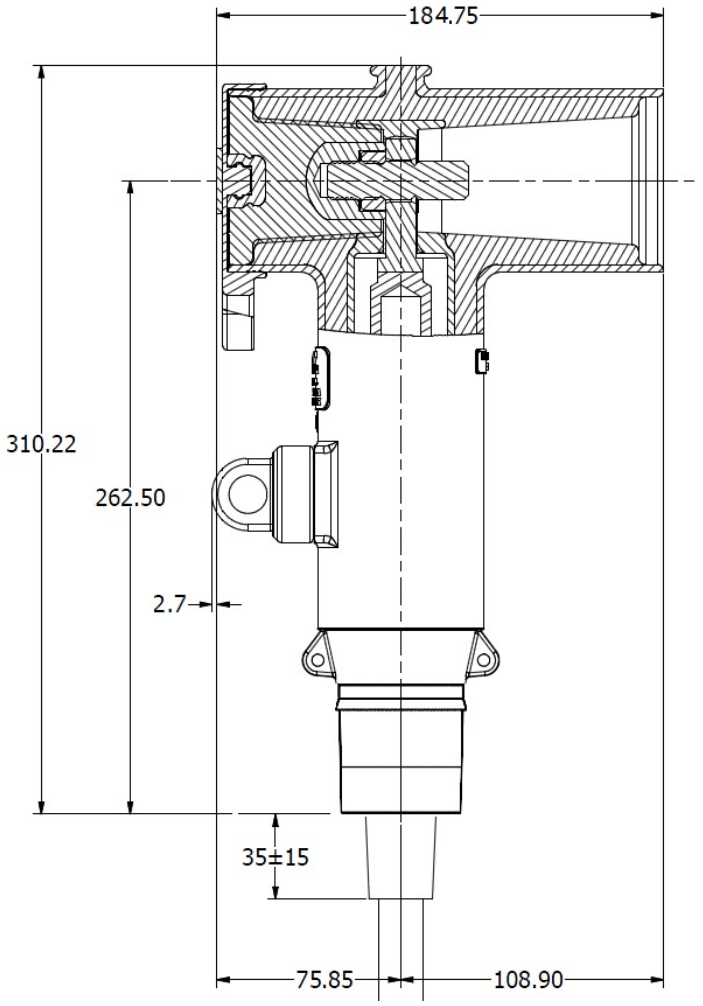

Figure 2. DTS636SO Deadbreak Sliding Tee Connector Dimensional Information (mm)

Kit contents

The complete kit includes :

- 3 Molded Tee Housing ;
- 3 Cable Adapter ;
- 3 Crimp connector ;
- 3 Insulating Plug ;
- 3 Rubber Cap ;
- 3 Bail Assembly kit ;
- 1 Basic Accessories Kit ;
- Installation Instructions.

Ordering Information

The complete catalog number for the tee connector is as below table2 and table3.

Ordering Example: For 36 kV 300 mm^2 copper conductor cable, 37.0 mm insulation diameter, without test point, export package, specify DTS636SOHC300P3E.

Heat Shrink Trifurcation Kits are ordered separately.

Ordering Example: For 36 kV cable, 300 mm^2 cable, specify SAK624T3HS24E

Table 2

630A Short Tee with Insulating Plug, Copper Crimp Connector, Heat Shrink 3-core Trifurcation Kit

Selection List

Part Number	Insulation O.D. (mm)	Cross Section (mm^2)	HS Kit (Optional)
DTS636SODC35P3E	23.1—27.0	35	HS21
DTS636SODC50P3E	23.1—27.0	50	HS21
DTS636SOEC70P3E	25.6-29.0	70	HS22
DTS636SOFC95P3E	27.7—32.6	95	HS22
DTS636SOFC120P3E	27.7—32.6	120	HS22
DTS636SOGC150P3E	30.9—36.2	150	HS23
DTS636SOGC185P3E	30.9—36.2	185	HS23
DTS636SOHC240P3E	34.0—39.5	240	HS23
DTS636SOHC300P3E	34.0—39.5	300	HS24
DTS636SOC400P3E	39.5—45.0	400	HS24
DTS636SOC500P3E	39.5—45.0	500	HS25

Table 3

630A Short Tee with Insulating Plug, Shear Bolt Connector, HeatShrink 3-core Trifurcation Kit **Selection List**			
Part Number	**Insulation O.D. (mm)**	**Cross Section (mm^2)**	**HS Kit (Optional)**
DTS636SODM35P3E	23.1—27.0	35	HS21
DTS636SODM50P3E	23.1—27.0	50	HS21
DTS636SOEM70P3E	25.6-29.0	70	HS22
DTS636SOFM95P3E	27.7—32.6	95	HS22
DTS636SOFM120P3E	27.7—32.6	120	HS22
DTS636SOGM150P3E	30.9—36.2	150	HS23
DTS636SOGM185P3E	30.9—36.2	185	HS23
DTS636SOHM240P3E	34.0—39.5	240	HS23
DTS636SOHM00P3E	34.0—39.5	300	HS24
DTS636SOM400P3E	39.5—45.0	400	HS24
DTS636SOM500P3E	39.5—45.0	500	HS25

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

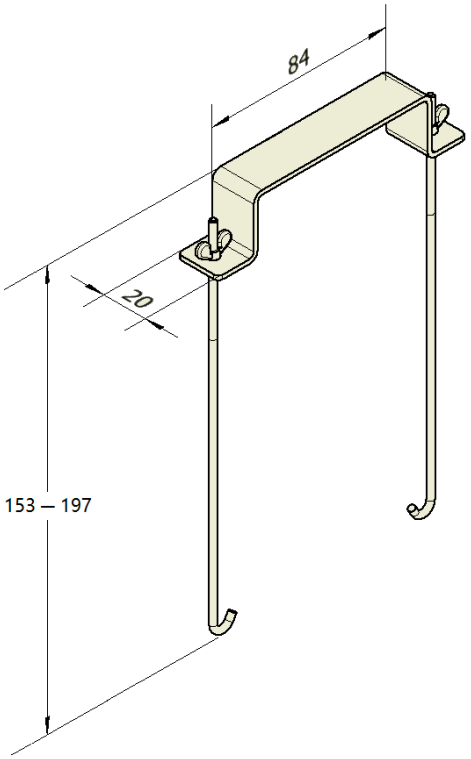

Figure 3. Bail Assembly Kit Dimensional Information (mm)

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

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