

250 A 25 kV class deadbreak elbow connector - interface A



DE250 - 24 kV Applications

Related products

- DRC250 Receptacle Cap
- DPD250 Dead End Plug
- DPS250 Standoff Plug
- DPE250 Earthing Plug
- DJ250 3-Way Junction

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 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
- Type A interface as described by CENELEC EN 50180 and EN 50181
- System voltage up to 24 kV
- Continuous current 250 A (300 A overload for 8 hours)
- Cable particulars:
 - Polymeric cable (XLPE, EPR, etc.)
 - Copper or aluminum conductors
 - Semiconducting or metallic screens
- Conductor size 16-120 mm²

Features

- Provides a fully screened and fully submersible separable connection when mated with the proper bushing or plug
- Built-in capacitive test point to determine the circuit status or install a fault indicator
- No minimum phase clearance requirements
- Mounting can be vertical, horizontal, or any angle in between
- 100% factory tested

Standards

- Will meet the requirements of VDE 0278, IEC 60502-4, EDF HN 52-S-61, IEEE Std 386™-2006 standard, BS 7215 and others

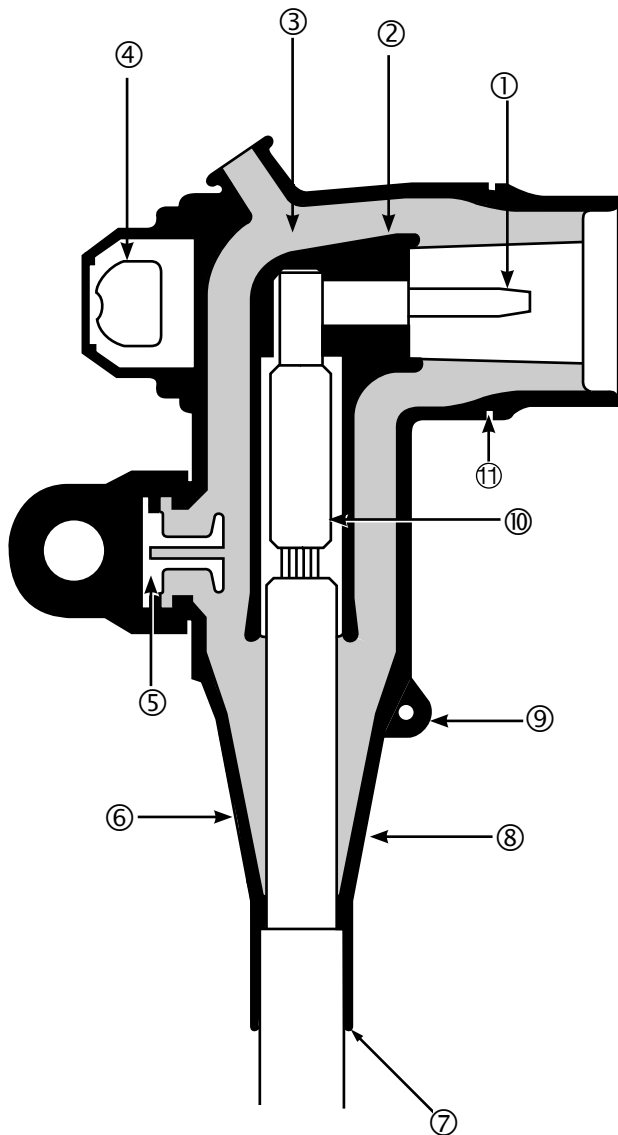
Quality assurance

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

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Features and detailed description



1. **Pin Contact**
Tin-plated copper pin screws into the conductor connector with the supplied hex key.
2. **Internal Screen**
Moulded EPDM conducting rubber screen controls electrical stress.
3. **Insulation**
Moulded EPDM insulating rubber is formulated and mixed in-house to ensure high quality.
4. **Pulling Eye**
Encapsulated stainless steel pulling eye with a detent to position the bail.
5. **Capacitive Test Point**
Capacitive test point provides means to check circuit status. A moulded EPDM conducting rubber cap provides a watertight seal.
6. **Stress Relief**
The configuration of the outer screen and insulation provides cable stress relief.
7. **Cable Entrance**
The sized opening provides an interference fit to maintain a watertight seal.
8. **External Screen**
Moulded EPDM conducting rubber mates with the cable screen to maintain screen continuity and ensure that the assembly is at earth potential.
9. **Earthing Eye**
Moulded into the external screen for connection of an earthing wire.
10. **Conductor Contact**
Inertia welded bimetallic compression connector accepts copper or aluminum conductors.
11. **Locking Ring Groove**
Provision for an optional three-phase locking ring.
12. **Stainless Steel Bail (Figure 2)**
Secures the connector to its mating bushing or accessory. Optional bail (Figure 3)

Figure 1. 250 A, 24 kV Class DE250 deadbreak elbow connector.

- Periodic X-Ray Analysis

Packaging

- Supplied in a kit with all necessary parts, approximate weight 1 kg

Kit contents:

- Elbow Housing
- Conductor Contact
- Pin Contact
- Hex Key

The kit also includes lubricant, wipers and installation instructions.

Table 1. Electrical Ratings

Maximum System Voltage (U_m)	24 kV
Impulse	125 kV
AC Withstand (5 min.)	54 kV
Continuous Current	250 A
Overload (8 hrs Max.)	300 A
Short Circuit Withstand, 1 sec. (rms sym.)	12.5 kA

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

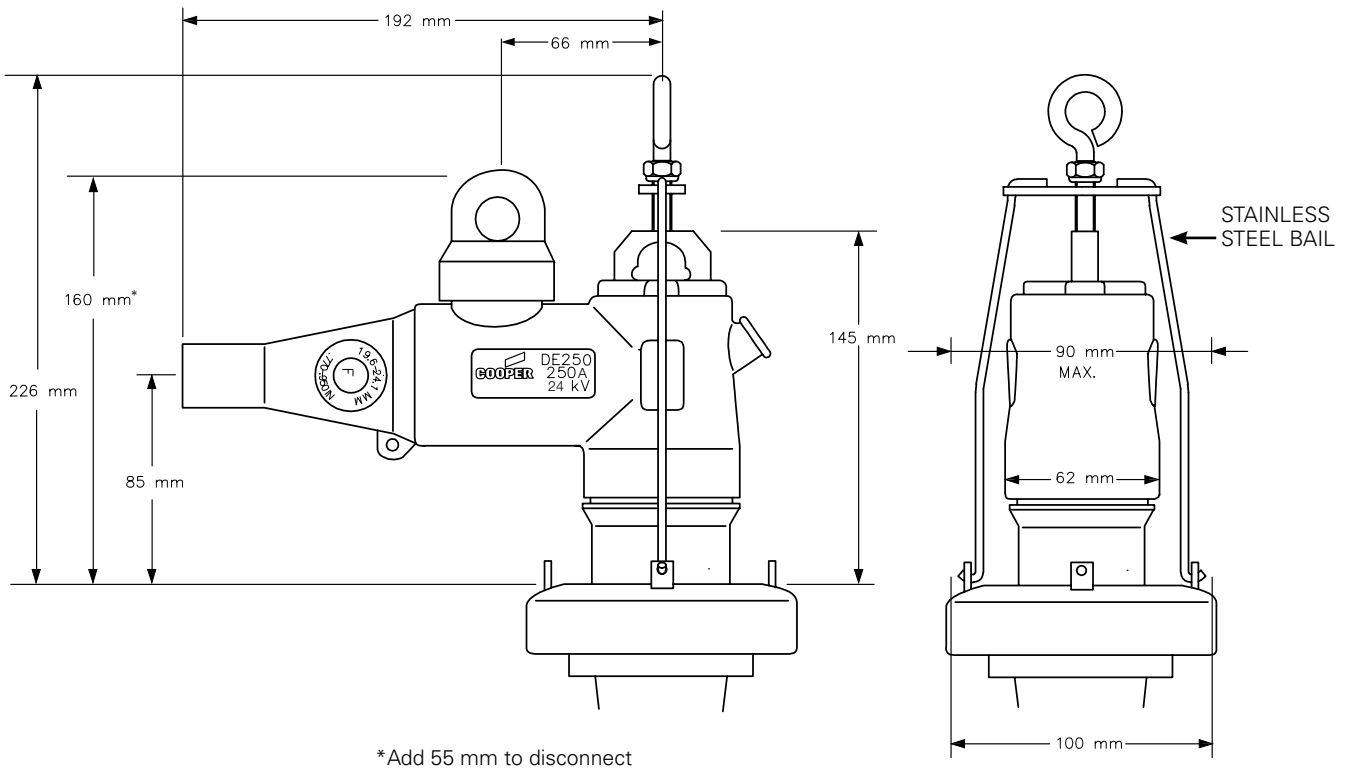


Figure 2. DE250 deadbreak elbow connector dimensional information.

Ordering information

The standard kit is packaged individually in a carton with elbow housing, conductor contact, pin contact and other necessary parts to complete the installation. Cable sealing kits must be ordered separately.

Step 1

Select the insulation diameter code which best centers the insulation diameter of the cable from Table 2.

Step 2

Identify the conductor size and determine the desired connector type from Table 3.

Step 3

Change the "0" in DE250 to a "1", if a Spring Loaded Bail is required. See Figure 3.

Ordering Example:

For 1 20 kV cable with a 50 mm² aluminum conductor, 21.0 mm core insulation diameter, unplated DIN connector and a standard bail, specify **DE250F50**.

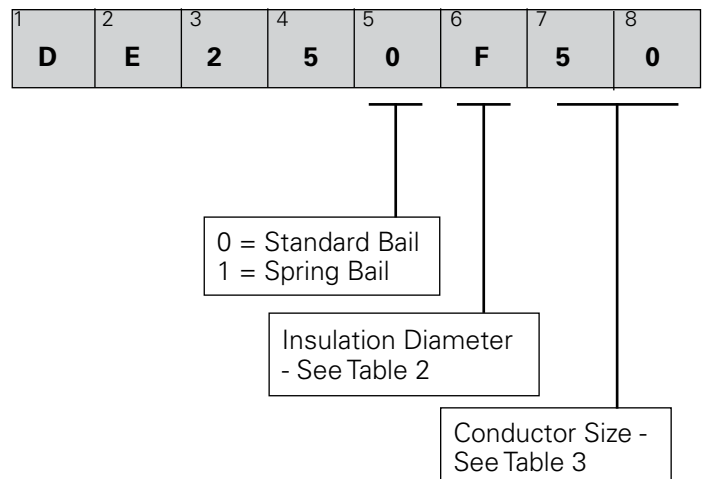
Note: Bimetallic connectors can be used with aluminum or copper conductors.

Table 2. Cable Insulation Range

Insulation Range Designation	Cable Insulation Range Ø (mm)	
	Min.	Max.
B	13.5	17.4
D	16.3	20.8
F	19.6	24.1
H	23.1	28.7
J	27.9	33.5

Table 3. Conductor Code

Stranded Conductor Size (mm ²)	DIN Unplated	DIN Plated	EDF Type	DIN Copper
16	16	P16	E16	C16
25	25	P25	E25	C25
35	35	P35	E35	C35
50	50	P50	E50	C50
70	70	P70	E70	C70
95	95	P95	E95	C95
120	120	P120	-	C120



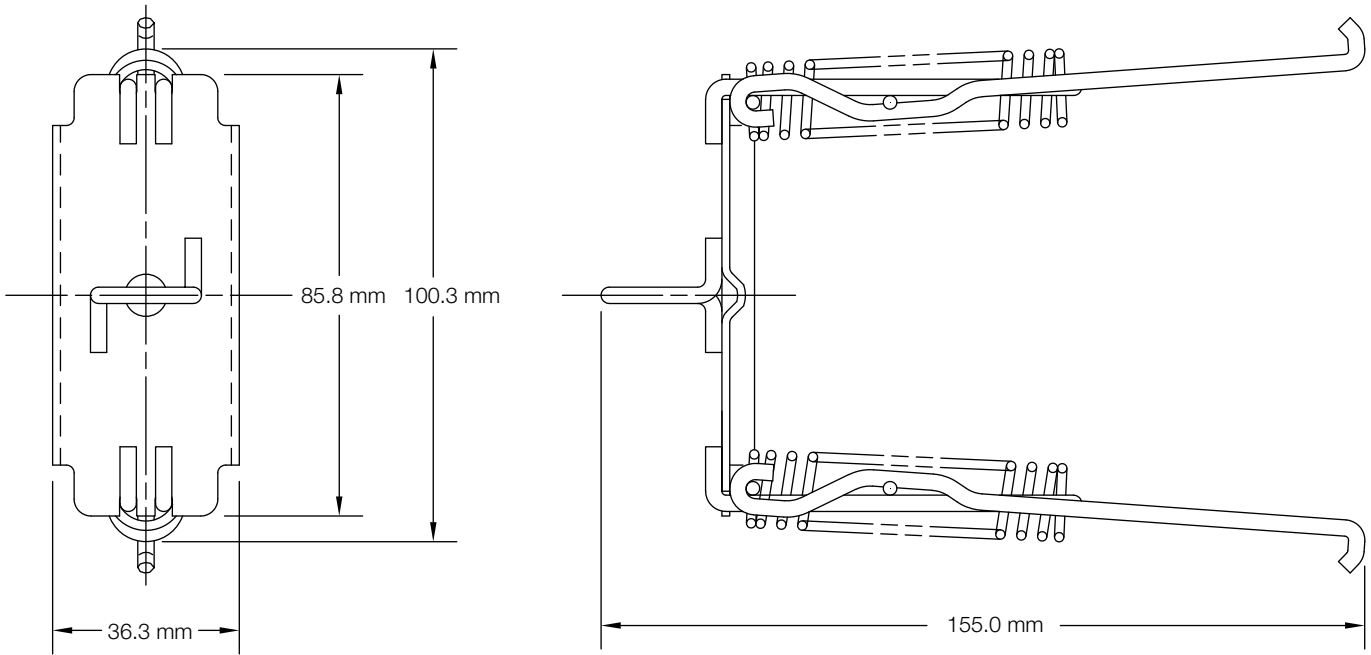


Figure 3. Optional spring loaded bail.

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