250 A, 24 kV class deadbreak straight connector - interface A

Related products
- DPC250 Receptacle Cap
- DPD2500 Dead End Plug
- DPE250 Earthing Plug
- DPS250 Standoff Plug
- DJ250 Junctions

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 designed for interface A and 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 EN50181
- 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 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.
  - AC withstand
  - Partial Discharge
250 A deadbreak straight connector - interface A

**Features and detailed description**

1. **Conductor Contact**
   Inertia welded bimetallic compression connector accepts copper or aluminum conductors.

2. **Internal Screen**
   Moulded EPDM conducting rubber screen controls electrical stress.

3. **Capacitive Test Point**
   Capacitive test point provides a means to check circuit status. A moulded EPDM conducting rubber cap earths the test point when not in use.

4. **Stress Relief**
   The configuration of the outer screen and insulation provides cable stress relief.

5. **Cable Entrance**
   The sized opening provides an interference fit to maintain a watertight seal.

6. **External Screen**
   Moulded EPDM conducting rubber mates with the cable screen to maintain screen continuity and ensure that the assembly is at earth potential.

7. **Earthing Eye**
   Moulded into the external screen for connection of an earthing wire.

8. **Insulation**
   Moulded EPDM insulating rubber is formulated and mixed in-house to ensure high quality.

9. **Stainless Steel Bail (See Figure 2)**
   Secures the connector to its mating bushing or accessory.

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**Kit contents:**

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

The kit also includes lubricant and installation instructions.

**Table 1. Electrical Ratings**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum System Voltage (U_{\text{m}})</td>
<td>24 kV</td>
</tr>
<tr>
<td>Impulse</td>
<td>125 kV</td>
</tr>
<tr>
<td>AC Withstand (5 min.)</td>
<td>54 kV</td>
</tr>
<tr>
<td>Continuous Current</td>
<td>250 A</td>
</tr>
<tr>
<td>Overload (8 hrs. Max.)</td>
<td>300 A</td>
</tr>
<tr>
<td>Short Circuit Withstand, 1 sec [rms sym]</td>
<td>12.5 kA</td>
</tr>
</tbody>
</table>

**Standards**

- Meets the requirements of Cenelec HD629.1 S2 & IEC 60502-4.

**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 parts listed, approximate weight 1 kg.

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Figure 1. 250 A - 24 kV Class DS250 deadbreak straight connector.
Ordering information

The standard kit is packaged individually in a carton with elbow housing, conductor contact, pin contact, bail assembly 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.

Table 2. Cable Insulation Range

<table>
<thead>
<tr>
<th>Insulation Range Designation</th>
<th>Cable Insulation Range Ø (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min.</td>
</tr>
<tr>
<td>B</td>
<td>13.5</td>
</tr>
<tr>
<td>D</td>
<td>16.3</td>
</tr>
<tr>
<td>F</td>
<td>19.8</td>
</tr>
<tr>
<td>H</td>
<td>23.1</td>
</tr>
<tr>
<td>J</td>
<td>27.9</td>
</tr>
</tbody>
</table>

Ordering Example: For 20 kV cable, 50 mm² aluminum conductor, 21.0 mm core insulation diameter, unplated DIN connector, specify DS250F50.

Cable seal adapters are ordered separately.

Table 3. Conductor Code

<table>
<thead>
<tr>
<th>Stranded Conductor Size (mm²)</th>
<th>DIN Unplated</th>
<th>EDF Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>16</td>
<td>E16</td>
</tr>
<tr>
<td>25</td>
<td>25</td>
<td>E25</td>
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<tr>
<td>95</td>
<td>95</td>
<td>E95</td>
</tr>
<tr>
<td>120</td>
<td>120</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Dimensions in mm
* Add 55 mm to disconnect

Figure 2. DS250 deadbreak connector dimensional information.