

# Center Break Switch Product Specification

Center break disconnect switches are electrical devices used to isolate circuits by separating the contacts at the center of the switch, typically in a symmetrical manner. These switches are designed to provide a reliable and safe means of disconnecting high-voltage circuits for maintenance, fault isolation, or system reconfiguration. When the switch is operated, the contact arms move from the center outwards, breaking the electrical connection and ensuring no current flows through the circuit. The design of the center break switch ensures a balanced load distribution, enhancing its durability and reducing mechanical stress during operation.

Center break disconnect switches are particularly well-suited for medium- to high-voltage applications in substations, industrial plants, and utility systems. Their symmetrical operation allows for uniform contact separation, which helps minimize wear and tear on the switch components. These switches are equipped with visible indicators to show whether the circuit is open or closed, ensuring safety for operators and maintenance personnel.

Key features of center break disconnect switches include:

1. **Symmetrical Operation:** The contacts break in a balanced manner from the center, offering uniform performance.
2. **High-Voltage Capability:** Designed to handle medium- to high-voltage circuits in power transmission and distribution systems.
3. **Durability:** Provides long-lasting, reliable performance with minimal wear and tear due to its balanced design.
4. **Safety:** Includes visible indicators for clear indication of the switch position, enhancing operational safety.
5. **Ease of Maintenance:** Offers simple operation and maintenance in industrial and power utility settings.

These switches are critical for ensuring the safe operation and maintenance of electrical systems, allowing operators to safely disconnect sections of the network without disrupting the overall system integrity.

In substations, center break disconnect switches are essential for safely isolating electrical circuits for maintenance, fault isolation, or system reconfiguration. These switches are particularly beneficial in high-voltage environments where reliable performance and balanced contact separation are critical. The symmetrical operation of the center break switch ensures that both contacts are separated evenly, reducing mechanical stress and prolonging the lifespan of the switch. Operators can safely open or close the circuit without risk of electrical arcing, thanks to the clear and visible break between the contacts. This makes the center break disconnect switch ideal for use in substations, where maintenance activities must be performed without

jeopardizing the safety of personnel or the integrity of the electrical grid. Additionally, the design of the switch ensures uniform load distribution, making it a highly durable and efficient solution for power transmission and distribution systems. By enabling safe and efficient disconnection of electrical circuits, center break disconnect switches play a vital role in maintaining the reliable operation and safety of substations.

The construction of substation center break disconnect switches is engineered for durability, reliability, and safety in high-voltage applications. These switches feature a robust, heavy-duty metal frame that supports the contact mechanism, designed to operate symmetrically from the center outwards. The contact arms, often made from copper or silver alloys, are constructed to provide low resistance and ensure minimal wear over time, even under high electrical loads. Insulating materials, such as porcelain or composite polymers, are used to prevent electrical arcing and provide safe separation between live parts. The switch mechanism is designed to ensure smooth operation, often utilizing gear and pulley systems, which are sealed and lubricated to minimize maintenance. Corrosion-resistant coatings are applied to all exposed metal parts to protect against environmental factors, such as moisture, dust, and extreme weather conditions. Additionally, visible indicators are incorporated into the design to clearly show the open or closed position of the switch, enhancing safety for operators. The symmetrical design of the center break switch allows for even distribution of forces, which reduces mechanical strain and enhances its longevity, making it ideal for substation environments where high reliability and minimal maintenance are essential.

## Offerings

<b>kV</b>	<b>BIL kV</b>	<b>AMP cont</b>	<b>Mom kA</b>
<b>15</b>	110	2000	100
		3000	120
<b>23</b>	150	2000	100
		3000	120
<b>34</b>	200	2000	100
		3000	120
<b>46</b>	250	2000	100
		3000	120
<b>69</b>	350	2000	100
		3000	120
<b>115</b>	550	2000	100
		3000	120
<b>138</b>	650	2000	100
		3000	120
<b>161</b>	750	2000	100
		3000	120
<b>230</b>	900	2000	100
		3000	120

<b>500</b>	1050	2000	<b>100</b>
		3000	120
<b>800</b>	1200	2000	<b>100</b>
		300	120