Knee Type Break Switch Product Specification

Description

A **knee-type disconnect switch** is a type of electrical switch used in high-voltage electrical systems to isolate or disconnect portions of the circuit for maintenance, safety, or fault protection. The term "knee-type" refers to the shape of the switch mechanism, which typically has a curved or angular form resembling the shape of a bent knee.

Here are the key features and functions of a knee-type disconnect switch:

1. **Design**: The switch has a distinctive angular or "knee" shape that helps in the alignment and operation of the switch. It is generally used for high-voltage applications in substations or distribution systems.
2. **Operation**: The knee-type disconnect switch is designed to be manually operated, often by a lever or a motor. The switch can be opened or closed to either allow or interrupt the flow of electricity, thereby isolating parts of a circuit for maintenance or in case of a fault.
3. **Safety**: This type of disconnect switch helps ensure the safety of maintenance personnel by completely isolating the section of the electrical system being worked on. It is designed to prevent accidental re-energization during maintenance.
4. **Construction**: Knee-type disconnect switches are typically built using durable materials, such as steel, and they are often equipped with visible blades or contacts that show whether the switch is open or closed.
5. **Applications**: These switches are often found in electrical substations, power plants, and large industrial settings, particularly in areas where high-voltage transmission lines or circuit breakers need to be manually isolated for safe servicing.

In summary, a knee-type disconnect switch is an essential safety and isolation device used in electrical systems, characterized by its distinctive design and functionality in controlling high-voltage circuits.

Application

The **knee-type disconnect switch** is widely used in high-voltage electrical systems, particularly in substations, power plants, and industrial settings. Its primary application is to isolate electrical circuits or equipment for maintenance, repair, or safety purposes. In substations, it allows for the disconnection of transformers, lines, or other components to ensure safe servicing and prevent accidental re-energization. Similarly, in power plants and transmission networks, knee-type

disconnect switches help isolate faulty equipment or switch between different power sources. These switches are essential for maintaining the reliability of electrical systems, protecting both equipment and personnel by ensuring visible, safe isolation during maintenance activities. Additionally, they are used in renewable energy systems, such as solar and wind farms, to disconnect individual units for troubleshooting or service.

Construction

The knee-type disconnect switch is typically constructed using robust materials such as steel or aluminum to withstand high-voltage applications and harsh environmental conditions. The switch features a distinctive knee-shaped design, which provides a mechanical advantage in aligning and operating the switch. It includes a set of visible, rigid blades or contacts that open and close to establish or break the electrical connection. The switch is often equipped with a lever or motor-driven mechanism for operation, allowing it to be manually or remotely controlled. Additionally, the knee-type disconnect switch is designed with safety features such as visible isolation indicators and grounding mechanisms, ensuring that the disconnected section is properly isolated and de-energized. The durable construction is designed for reliability and long-term performance in high-voltage transmission and distribution systems.

Offerings

kV	BIL kV	AMP cont	Mom kA
15	110	2000	100
		3000	120
23	150	2000	100
		3000	120
34	200	2000	100
		3000	120
46	250	2000	100
		3000	120
69	350	2000	100
		3000	120
115	550	2000	100
		3000	120
138	650	2000	100
		3000	120
161	750	2000	100
		3000	120
230	900	2000	100
		3000	120
500	1050	2000	100
		3000	120

800	1200	2000	100
		300	120