Pantograph Break Switch Product Specification

Pantograph disconnect switches are specialized electrical devices used to isolate circuits in high-voltage applications, typically in power transmission and distribution systems. These switches are designed with a unique pantograph mechanism, which uses a set of interconnected arms that move in a parallel, sliding motion to open or close the electrical contacts. This mechanism ensures a smooth and balanced separation of the contacts, which helps to minimize wear and tear and reduce the risk of electrical arcing during operation.

Pantograph disconnect switches are primarily used in outdoor substations and utility systems, where they serve to safely disconnect high-voltage circuits for maintenance, fault isolation, or reconfiguration of the network. The pantograph design allows for a more compact installation, while also providing robust performance in demanding environments. These switches are equipped with visible indicators to clearly show the open or closed position, providing added safety for operators and maintenance personnel.

Key features of pantograph disconnect switches include:

1. **Pantograph Mechanism**: The interconnected arms move in parallel, providing smooth and balanced contact separation.
2. **High-Voltage Capability**: Suitable for use in medium- to high-voltage power systems, particularly in substations and transmission lines.
3. **Durability**: Designed to withstand the rigors of outdoor environments, with corrosion-resistant materials and minimal wear during operation.
4. **Safety**: Includes visible position indicators, ensuring clear communication of the switch's status.
5. **Compact Design**: The pantograph mechanism allows for a more space-efficient installation, ideal for areas with limited space.

Pantograph disconnect switches are essential for ensuring the safe operation and maintenance of electrical grids, offering reliable isolation of circuits while minimizing operational stress and increasing the longevity of the equipment.

Pantograph disconnect switches are widely used in power transmission and distribution systems, particularly in substations and outdoor utility networks. These switches provide a safe and reliable method for isolating high-voltage circuits during maintenance, fault isolation, or system reconfiguration. The unique pantograph mechanism allows for smooth, balanced separation of contacts, ensuring minimal electrical arcing and reduced wear during operation, which is critical in high-voltage applications. Pantograph disconnect switches are especially beneficial in

locations where space is limited, as their compact design allows for efficient use of space without compromising performance. By providing clear and visible indicators to confirm whether the switch is open or closed, these switches enhance safety for operators and maintenance personnel. Their robust construction, resistance to harsh environmental conditions, and ability to operate efficiently in demanding systems make them an ideal solution for maintaining the reliability and safety of power transmission and distribution networks.

Pantograph disconnect switches are constructed with a unique and highly efficient design that incorporates a pantograph mechanism, which consists of interconnected arms that move in parallel to ensure smooth contact separation. The frame of the switch is typically made from heavy-duty, corrosion-resistant materials such as galvanized steel or aluminum to withstand the outdoor conditions commonly found in substations and utility environments. The contacts are usually made from durable copper or silver alloys, providing low resistance and high conductivity while minimizing wear over time. Insulating components, often made of porcelain or composite materials, are used to prevent arcing and provide safe separation between live parts. The pantograph mechanism is designed with precision to balance the forces during operation, which helps reduce mechanical stress and extend the switch's operational life. To enhance safety and ease of operation, the switch includes visible position indicators that clearly show whether the switch is open or closed. Additionally, the switch is engineered to handle high-voltage systems and is sealed against dust, moisture, and other environmental factors, ensuring reliable performance even in harsh conditions. The overall construction prioritizes longevity, safety, and efficiency, making pantograph disconnect switches a reliable choice for electrical power 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