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Chapter 1

Post Insulator Definition

1.2 Switchgear

By Orient Power

Switchgear



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Switch is another place for post insulator application.

Definition of switchgear:

In an electric power system, switchgear is the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electrical equipment. Switchgear is used both to de-energize equipment to allow work to be done and to clear faults downstream.

Typically, switchgears in substations are located on both the high-voltage and low-voltage side of large power transformers. The switchgear on the low-voltage side of the transformers may be located in a building, with medium-voltage circuit breakers for distribution circuits, along with metering, control, and protection equipment. For industrial applications, a transformer and switchgear line-up may be combined in one housing, called a unitized substation or USS.

Types of switchgear:

A switchgear may be a simple open-air isolator switch or it may be insulated by some other substance. An effective although more costly form of switchgear is the gas insulated switchgear (GIS), where the conductors and contacts are insulated by pressurized sulfur hexafluoride gas (SF_6). Other common types are oil or vacuum insulated switchgear.

Classification of switchgear by interrupting rating:

- Circuit breakers can open and close on fault currents
- Load-break/Load-make switches can switch normal system load currents
- Isolators are off load disconnectors which are to be operated after Circuit Breakers, or else if the load current is very small