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Chapter 5

Composite Insulator Design

5.4 Insulator Voltage

By Orient Power

Insulator Voltage



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The classification for composite insulator:

- ✧ Pin type insulator
- ✧ Suspension insulator
- ✧ Line post insulator
- ✧ Cross arm insulator
- ✧ Post type insulator
- ✧ Railway insulator

Voltage for composite insulator different types:

Pin insulator: 6~36KV

Suspension insulator: 10~1000KV

Line post insulator: 6~132KV

Cross arm insulator: 10 KV~220KV

Post insulator: 10~1000KV

Railway insulator: 27.5KV

Types of voltage of composite insulator:

- ✧ Rated voltage
- ✧ Power frequency puncture voltage
- ✧ Power frequency flashover voltage
- ✧ Lighting impulse withstand voltage
- ✧ Power frequency withstand voltage

The relationship between insulator and voltage grade:

Generally speaking, the higher voltage grade, the more section length and more Creepage distance, more arcing distance needed for insulator.

Composite insulator performs better on high voltage lines especially on DC lines.

More composite insulator information, you can visit other chapters on Orient power website.