

HT Air Core Series Reactors



PRODUCT RANGE

- Type of Reactor : Iron Core / Air Core
- Type of Winding : Copper / Aluminum
- Detuning Factor : 0.2% to 14%
- Rated Voltage : 3.3 kV to 33 kV
- Frequency : 50 / 60 Hz
- Installation : Indoor / Outdoor

Note: We also provide capacitor as per customer / system requirements.

Features

- Low Losses
- 100% Pure raw material
- Ten Years of Design Life
- Less Temperature Rise
- Anti UV Protection Based Coated Paint

Applications

- Motor Dries
- Limit Current
- Stabilize the Voltage
- Harmonics Reduction
- Power Distribution System : Series reactors are used in power distribution systems to limit fault currents, improve voltage regulation, and reduce the impact of short circuits.
- Power Factor Improvement : In motor control systems, series reactors can be employed to protect the motor from inrush currents and to limit voltage spikes
- Power Factor Improvement : Series reactors are used in power factor correction systems to adjust the power factor of the load

Role of Series Reactor in Capacitor Bank

In certain situations, especially when dealing with power systems with a high level of harmonics or resonance issues, a detuning reactor is added to the capacitor bank. The detuning reactor is connected in series with the capacitors. Its primary purpose is to reduce or eliminate the risk of resonance in the system. There are 2 types of reactor: one is a tuned reactor and the other is a detune reactor.

Tuned Reactor

- The combination of capacitors and reactors forms a tuned filter circuit. The capacitors provide reactive power support, and the reactors prevent resonance.
- Resonance can occur when the natural frequency of the capacitor bank matches the frequency of harmonics present in the system. Resonance can lead to increased currents and voltages, potentially causing equipment damage.

Detuning Reactor

- Detuning reactors are designed to provide inductive reactance. This inductive reactance, when added to the capacitive reactance of the capacitors, helps to shift the natural frequency of the circuit away from the system harmonics.
- By detuning the circuit, the risk of resonance is minimized, and the overall stability of the power system is improved.

Technical Data & specifications :

Manufacturer & Make	: AJIT ELECTRONICS CORPN.
Reference	: ISS 2026 - 6 / IEC 60076
Type of Capacitor	: a) Air core, dry type series Reactor b) Iron Core dry type Series Reactor

Type of Winding	: Copper / Aluminum
Rated Frequency	: 50 / 60 Hz.
Rated Voltage(kV)	: 3.3 kV to 33 kV
Detuning Factor	: 0.2% to 14 %
Colling Method	: Air Natural
Max. Continuous Current	: 130 times to the rated current
Temperature Rise	: Max.90o C by Resistance method
Class of insulation	: "F"(155o C)
Terminal Arrangement	: Bidirectional Type
Accessories for Reactors	: Post insulator, hardware

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