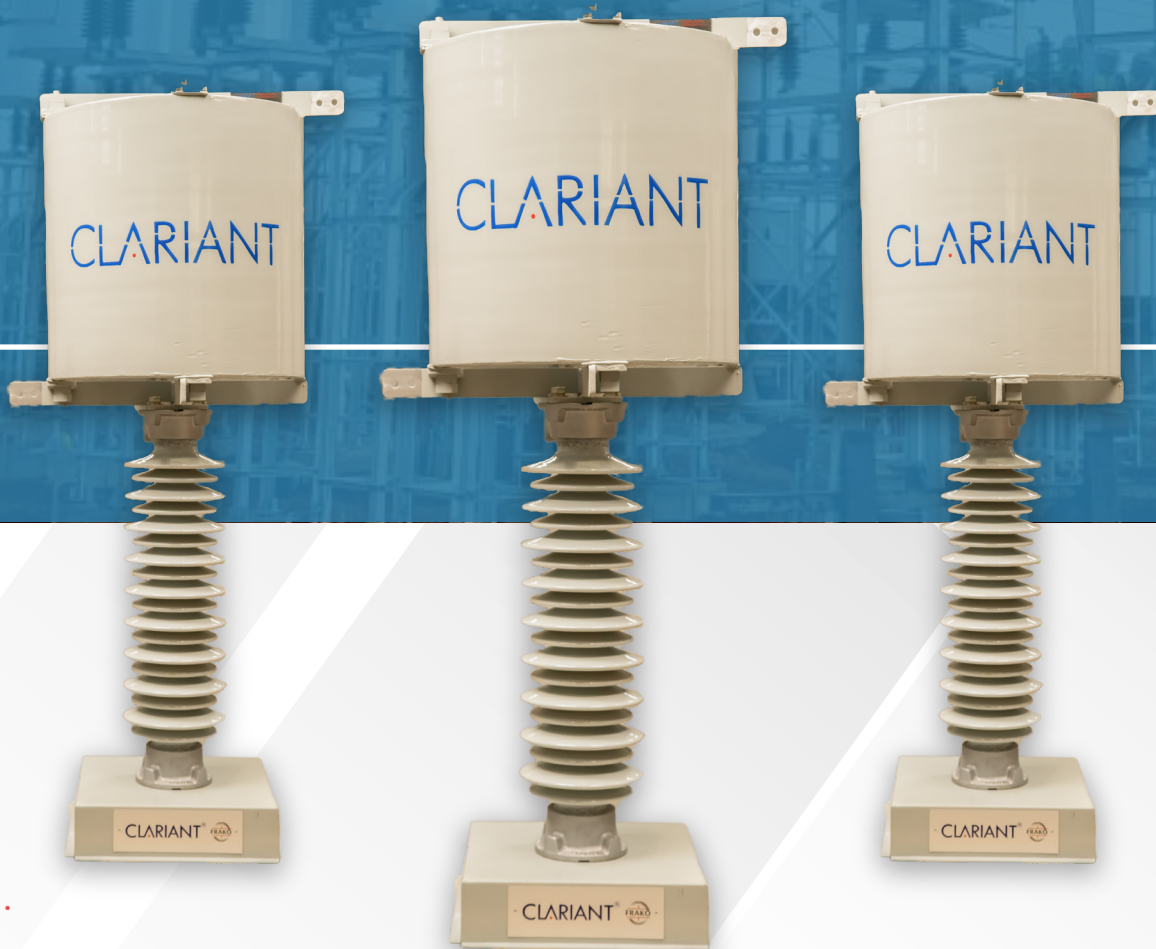




HT REACTORS



More Power by
Saving Energy

It's all about saving your money!



CLARIANT is a world leader in Design and manufacturing of high class standard and extra heavy duty air-core reactors (ACR) & Iron core reactors for Reactive Power Management and Power Factor Improvement with a wide assortment in Low Voltage, Medium Voltage & High Voltage power supply.

With over 2+ decades of experience in power quality and reactive power management, we address issues and provide solutions to our clients spread across diverse Govt. /State Power Utilities, Industrial Sectors, OEMs, Commercial Installations, etc. and ensure compliance with national and international standards.

Our manufacturing plant located at Bhosari, Pune in the state of Maharashtra, India is equipped with modern, latest, state-of-the-art machineries and testing labs. Our major objective is to comprehend the requirements of our clients through advance research & developments and to synchronizing with the trends prevailing in the industry.

Current-limiting reactors: designed to limit the fault current to levels compatible with existing protection/control equipment and as a result provided for a very cost – effective solution. Neutral earthing reactors: connected between the neutral of a power system and earth to limit the line-to-earth current to a desired value under system earth fault conditions

Design Features

- CLARIANT reactor windings consist of numerous aluminum or copper conductors connected in series & parallel. These conductors can be insulated single wires, insulated cables or aluminum profiles separated by fiberglass spacers.
- The cost-effective solution to be selected, in terms of dimensions and conductor type to be used in each design, depends on the required ratings for the equipment.
- High mechanical strength to withstand elevated short-circuits forces.
- Low noise level for noise sensitive applications.
- Conservative temperature rise for extended service life.
- Customized space saving solutions for installations in compact areas.
- Surface treatment for protection against UV radiation and pollution.
- Minimum maintenance requirements and environmentally -friendly.
- Air core reactors comply to IS / IEC Standards

Technical Data

Phases	Single Phase or Three Phase
Type of reactor	Air core epoxy resin impregnated.
Voltage Range	Up to 66 kV
Frequency	50 Hz or 60 Hz
Insulation Class	Up to H class
Power Range	Up to 20 MVAR (Other rating as per request)
Temperature Range	-20°C to +50°C
Losses	Low losses
Winding Configuration	Aluminium / copper
Terminals: [Terminal Type]	Aluminium / copper
Tolerance: [Tolerance Value]	(+10/-0% as per IS 2026-6) (+10/-0% as per IEC 60076-6)
Installation	Outdoor on structure / Indoor panel
Type of cooling	AN
Clamping rods	Fibber glass
Mounting Arrangement	(As per request)

Description

An air core series reactor is an electrical device that consists of a coil of wire wound around a core made of air or other non-magnetic materials. The purpose of the reactor is to create a controlled impedance or resistance to the flow of alternating current (AC) in a circuit.

Air core reactors are typically used in high-voltage electrical systems, such as power transmission and distribution systems, to limit the flow of current and reduce voltage fluctuations. They are also used in other applications, such as inverter circuits, where they can be used to filter out high-frequency noise.

The construction of an air core reactor involves winding a large number of turns of wire around a cylindrical or toroidal core made of a non-magnetic material, such as ceramic or plastic. The size of the reactor depends on the amount of current that it is designed to handle and the frequency of the AC power.

Overall, air core series reactors are an important component in many electrical systems and play a critical role in regulating the flow of electrical energy.

Cost Effective solution

CLARIANT reactors are suitable for either indoor or outdoor installation. Reactors are often installed in existing substations or installed to replace existing reactors. The reactors are designed to fit within space limitations or to be mounted directly onto the existing foundations. They are also designed for use inside enclosures. In this case, the reactors are designed to avoid excessive heating

➤ Mounting Arrangements

Reactors can be mounted individually as single-phase units, side-by-side, or as 3-phase stacks, one coil on top of the other. Special mounting arrangements can also be provided in case of space limitations.

➤ Installation

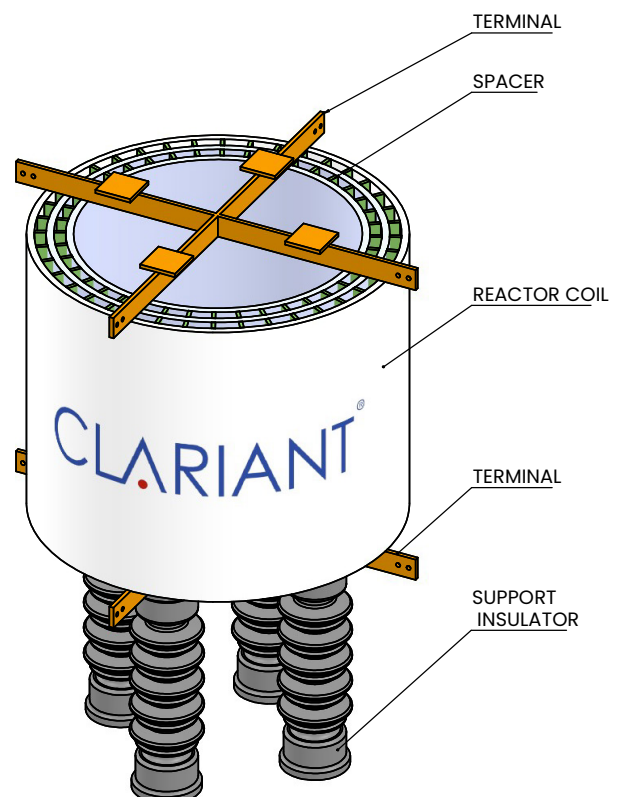
Minimum installation clearances must be maintained, including any limiting dimensions or clearances for steel used in nearby buildings or structures. Nonmagnetic supports can also be furnished.

➤ Technical Support:

CLARIANT Technical Support will provide technical support for system applications, design calculations, engineering, and field installation assistance.

Typical Design & Dimension

- Reactors are encapsulated with epoxy impregnated fiberglass roving and tape
- Reactors have aluminum supports and terminals at the top and bottom.
- Pre-tested conductor insulation ensures the dielectric integrity of the coil.
- Strong ceramic support insulators withstand severe shocks and weather.
- CLARIANT Electric custom designs and builds support stands and pedestals for specific applications, including special ones to prevent loop currents. Stands can be manufactured using aluminum or hot dip galvanized steel.

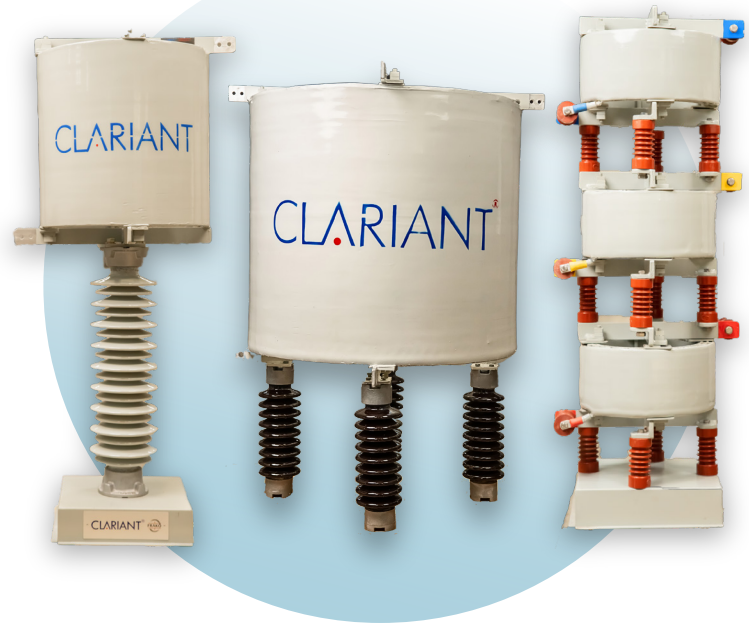


Quality Control

CLARIANT has a continuous quality improvement system based on the constant quest for optimized product design, procurement of materials and components, production, and customer service.

Products assembled by an experienced and well-trained workforce guarantees maximum customer satisfaction.

All CLARIANT manufacturing units are ISO 9001, ISO 140001, ISO 45001 certified.



Enquiry Sheet

Project Name

.....

Capacitor Bank Rating kVar, kV, phase

.....

General Data

System voltage kV

.....

System frequency Hz

.....

Reactance or Inductance

.....

% of Reactor %

.....

Reactance or Inductance

.....

Special Requirements

.....

Reactor Unit Details

Reactor type
(Air core / Iron core)

.....

Reactor Rating kVar

.....

Rated Current Amp

.....

Short Circuit Levels kA/sec

.....

Q Factor Required

.....

Dimensions L x W x H mm

.....

Clariant Power System Limited
In collaboration with Frako-Germany



Corporate Off. : Clariant House, 799/A, Bhandarkar Road, Pune - 411004

✉ sales@clariantindia.co.in 🌐 www.clariantindia.co.in

☎ +91 20 67332999 | +91 89757 53242 | +91 95525 65275 | +91 77199 96868 | +91 9130057668

PAN India Branch Offices / Service Centers

- North - Delhi | Chandigarh • South - Chennai | Hyderabad | Bangalore | Coimbatore
- East - Kolkata West - Mumbai | Nagpur | Raipur | Ahmedabad | Kolhapur | Goa | Indore
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📷 @Clariantpower