Trio Transformer

PRODUCT CATALOGUE

CURRENT TRANSFORMER (CT)

Application

Current transformers (CTs) are essential components in electrical power systems, primarily used to measure and monitor electrical currents. They step down high currents to lower, safer levels that can be measured by instruments like ammeters, wattmeter, and protective relays.

- Measurement and Monitoring
- Energy Metering
- Protection Systems
- Substation & Power distribution networks

Specifications

Type	Current Transformer
Finishing	Tape Wound / Resin Cast
Reference Standard	IS 2705
Rated Primary Current	upto 6000Amps
Rated Secondary Current	5A or 1A
Burden	upto 30VA (As per requirement)
Class of Accuracy	0.1, 0.2s, 0.2, 0.5s, 0.5, 1, 3, 5
Frequency	50 / 60Hz
Insulation Class	B / F / H
Insulation level (kV / RMS)	0.66kV / 3kV
Type of Winding	BPL / WPL
Winding Material	Copper
Conductor Types	Wires
Core Design	Ring / Rectangular
Number of Cores	1-2-3-4-5

CONTROL TRANSFORMER (SINGLE PHASE)

Application

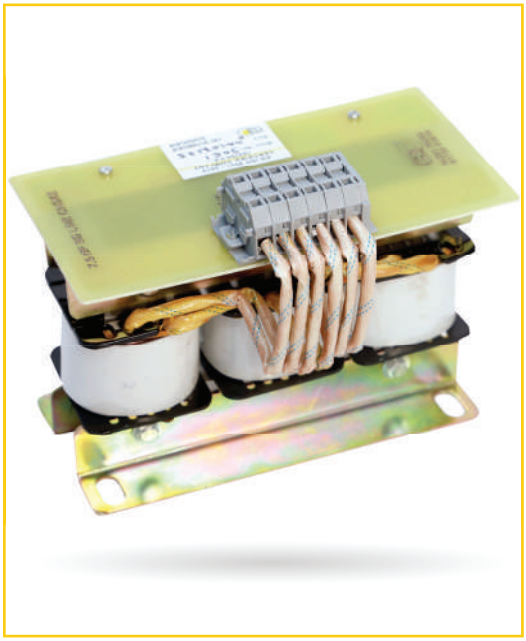
Control transformers are essential components in various electrical systems. They are primarily used to step down high voltage levels to lower more manageable voltages suitable for powering control devices. Here are some of the key applications of control transformers

- Industrial Systems:
- Machine tool control
- Conveyor systems
- Pumps
- Heating, ventilation, and air conditioning (HVAC) systems
- Electronic circuits
- Power supplies
- Test and measurement equipment

Specifications

Type	Control Transformer (Single Phase)
Reference Standard	IS 2026 / 11171
Rating	50VA-150KVA
Input Voltage	800 / 415 / 230 / As per requirement
Output Voltage	As per requirement
Cooling	Air
Configuration	Single phase
Frequency	50/60 HZ
Insulation Class	F / H
Insulation level (kV / RMS)	2.5 KV for 1min
Type of Winding	Double
Winding Material	Aluminum / Copper
Conductor Types	Wires/Strips
Core Type	Strips/EI
Operating / Ambient Temperature	45 Degree
Short Circuit Protection	MCB / MCCB available upon on request
Enclosure	Available on request

LINE CHOKES



Application

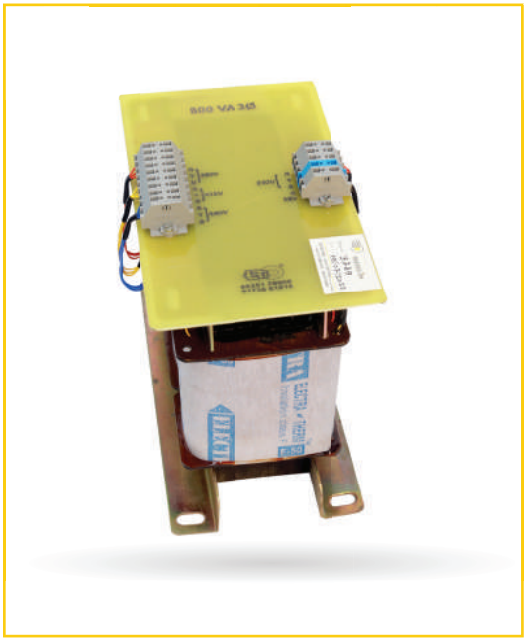
The important component of many electrical systems is line chokes or input chokes line reactors. They are usually utilized for preventing harmonic distortion and voltage spikes that cause malfunction of the connected equipment.

- Variable Frequency Drives (VFDs)
- Motor Drives
- Power Factor Correction (PFC) Systems

Specifications

Type	Line Communicating Chokes
Reference Standard	IS 5553
Rating	0.5-500 HP
Inductance	As per rating
Cooling	Air
Configuration	Single phase / Three phase
Frequency	50/60 HZ
Insulation Class	F / H
Insulation level (kV / RMS)	2.5 KV for 1min
Type of Winding	Auto
Winding Material	Copper
Conductor Types	Wires/Strips
Core	CRGO/CRNGO
Core Type	Strips/EI
Operating / Ambient Temperature	45 Degree

THREE PHASE TRANSFORMER



Application

Three-phase transformers are essential components in modern power systems. By efficiently transforming voltage levels, three-phase transformers play a crucial role in enabling the reliable and efficient distribution of electrical power.

- Industrial Applications
- Commercial Facilities
- Railways & Metro
- Airports
- Defence System

Specifications

Type	Three Phase Transformer
Reference Standard	IS 2026
Rating	Upto 200kVA
Input Voltage	800 / 415 / 230 / As per requirement
Output Voltage	As per requirement
Configuration	Three Phase
Cooling	Air / Oil
Frequency	50/60 Hz
Insulation Class	F / H
Type of Winding	Double Wound
Winding Material	Copper / Aluminum
Vector Group	Dyn11 or As per requirement
Core	CRGO
Core Type	Strip
Operating / Ambient Temperature	45 Degree
Enclosure	As per requirement

AUXILIARY TRANSFORMER

Application

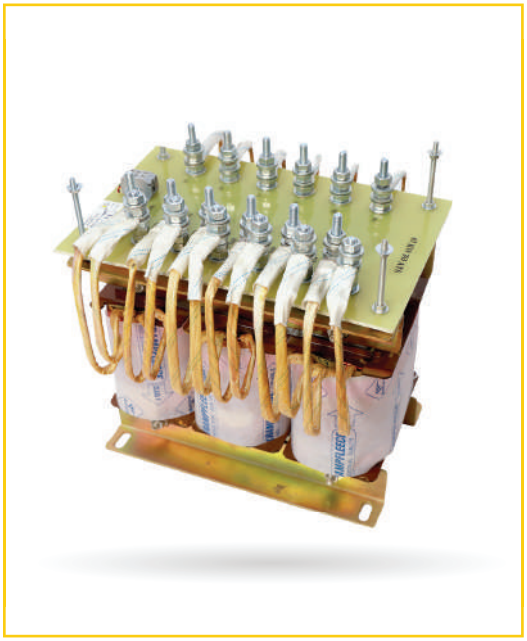
An auxiliary transformer is a specialized transformer designed to supply power to auxiliary systems and equipment within electrical installations such as substations, industrial plants, or power generation facilities. It operates by stepping down or stepping up the voltage of the primary electrical supply to the levels required by auxiliary equipment.

- Power Plants
- Substations
- Wind Park
- Solar Plants
- Industrial plants

Specifications

Type	AUXILIARY TRANSFORMER
Reference Standard	11171
Rating	Upto 100kVA
Input Voltage	800 / 415 / 230 / As per requirement
Output Voltage	As per requirement
Configuration	Three Phase
Cooling	Air / Oil
Frequency	50/60 Hz
Insulation Class	F / H
Type of Winding	Double Wound
Winding Material	Copper / Aluminum
Vector Group	Dyn11 or As per requirement
Core	CRGO
Core Type	Strip
Operating / Ambient Temperature	45 Degree
Enclosure	As per requirement

ATS TRANSFORMER



Application

Auto Transformer Starters are installed where the motor's starting load is too high. It is used to reduce the voltage applied to the motor during startup, which in turn reduces the starting current and the stress on the motor and the power system.

- Submersible pumps
- Boosting pumps for water supply
- Dewatering pumps in mines and ports
- Oil extraction pumps
- Sewage pumps

Specifications

Type	Auto Starter Transformer (ATS)
Reference Standard	IS 8544
Rating	10-500 HP
Input Voltage	415V
Output Voltage	60 % / 70% / 80% / As per requirement
Cooling	Air Cooled
Configuration	Three phase
Frequency	50/60 HZ
Insulation Class	F
Insulation level (kV / RMS)	3 KV for 1min
Winding Material	Copper
Conductor Types	Wires / Strips
Starts / Hour	3 / 6 starts per hour
Core Type	Strips
Operating / Ambient Temperature	45 Degree

ULTRA ISOLATION TRANSFORMER

Application

Ultra-isolation transformers are used in a variety of applications where safety, noise reduction and reliable power delivery are critical. Here are some of the common applications

- Industrial control systems
- Medical Equipment
- Laboratory instruments
- Server rooms
- Scientific research

Specifications

Type	Ultra-Isolation / Isolation Transformer
Reference Standard	IS 2026 / 11171
Rating	0-200 KVA
Input Voltage	As per requirement
Output Voltage	As per requirement
Cooling	Air / Oil
Configuration	Single phase / Three phase
Frequency	50/60 HZ
Insulation Class	F / H
Insulation level (kV / RMS)	2.5 KV for 1min
Type of Winding	Double
Winding Material	Aluminum / Copper
Conductor Types	Wires/Strips
Vector Group	As per requirement
Core Type	Strips/EI
Operating / Ambient Temperature	45 Degree
Short Circuit Protection	MCB / MCCB available upon request
Enclosure	Available on request

LIGHTING TRANSFORMER

Application

Lighting transformers are used to transfer electrical energy from one circuit to another. It is used in elevating the level of voltage before transmitting across long distances.

Lighting transformers are some of the most efficient and effective electric devices as they are known to successfully transfer 99.75% of the total energy input to the output junction.

- Server rooms
- Scientific research

Specifications

Type	Lighting Transformer
Reference Standard	IS 2026 / 11171
Rating	10-250 KVA
Input Voltage	415 / 230 / As per requirement
Output Voltage	As per requirement
Cooling	Air / Oil
Configuration	Single phase / Three phase
Frequency	50/60 HZ
Insulation Class	F / H
Insulation level (kV / RMS)	2.5 KV for 1min
Type of Winding	Double
Winding Material	Aluminum / Copper
Conductor Types	Wires/Strips
Vector Group	As per requirement
Core Type	Strips
Operating / Ambient Temperature	45 Degree
Short Circuit Protection	MCB / MCCB available upon on request
Enclosure	Available on request

DYNAMIC BRAKING RESISTORS (DBRs)

Application

DBRs play a crucial role in controlling motor speed, ensuring smooth and controlled braking, and preventing excessive energy dissipation in the power system.

- Cranes / Hoists
- Elevators
- Conveyor systems
- Trains
- Trams
- Trolleybuses
- Wind turbines
- Solar power systems
- Pumps

Specifications

Type	Dynamic Braking Resistors
Reference Standard	IEC - 61821
Rating	0.1Ώ ~ 1KΏ
Cooling	Air cooled
Insulation level (kV / RMS)	2000 V for AL100 to AL500, 2500 for AL600 to AL5000
Type of Winding	Available in non-inductive style (type AL-N)
Winding Material	Copper-nickel alloy or nickel-chrome alloy or fecral depending on resistance value
Standard Terminals	Tinned copper wire/ss tag terminal
Mounting	Horizontal
Short Time Overload	10 X Rated power for 5 sec. from 25W size & above
Core Type	Ceramic, steatite or alumina, depending on physical size
Encapsulant	Silicone cement construction
Efficiency	1% - 5%
Operating / Ambient Temperature	Hot spot temperature less than maximum body temperature (275°C)
Enclosure	Available on request

VOLTAGE STABILIZER

Application

Voltage stabilizers are essential devices used to protect sensitive electronic equipment from voltage fluctuations. By maintaining a stable voltage supply, voltage stabilizers help prevent damage, improve performance, and extend the lifespan of electronic devices.

- CNC Machine
- Biomedical Equipment
- Textile Machinery
- Pharmaceutical Machinery

Specifications

Type	Voltage Stabilizer
Reference Standard	As per IS 9815-1994
Input Voltage Range 3-Phase:	360-460, 340-480, 300-500 v (or as per customer specification)
Input Voltage Range 1-Phase:	160-270, 180-280, 130-260 v
Output Voltage Range 3-Phase:	415, 400, 380 v
Output Voltage Range 1-Phase:	240, 230, 220 v
System Construction	Unbalanced Type
Output Voltage Regulation	+/- 1%
Overloaded Capacity	120 %
Cooling	Natural Air-Cooled up to 250 kva / Oil Cooled
Modes Of System	Both auto and Manual

CURRENT TRANSFORMER (HTCT)

Application

High Tension Current Transformers (HTCT) are crucial for 11 kV medium-voltage systems, ensuring safe and accurate high-current measurement for energy metering, load monitoring, and system protection.

- Measurement and Monitoring
- Energy Metering
- Protection Systems
- Substation & Power distribution networks

Specifications

Type	Current Transformer (MV) / HTCT
Finishing	Resin Cast
Reference Standard	IS 2705
Rated Primary Current	upto 10000A
Rated Secondary Current	5A or 1A
Burden	upto 30VA (As per requirement)
Class of Accuracy	0.1, 0.2s, 0.2, 0.5s, 0.5, 1, 3, 5
Frequency	50 / 60Hz
Insulation Class	B / F / H
Insulation level (kV)	Up to 36/70/170kVp
Type of Winding	BPL / WPL
Winding Material	Copper
Conductor Types	Wires
Core Design	Ring / Rectangular
Number of Cores	1-2-3-4-5

DISTRIBUTION TRANSFORMER & POWER TRANSFORMER

Application

Distribution transformers step down high voltage from transmission networks to provide reliable and efficient power to consumers.

- Industrial Facilities
- Solar Plants
- Commercial Establishments
- Railways & Metro-Airports
- Defense System
- Residential Areas
- Rural Areas

Specifications

Type	Distribution Transformer
Reference Standard	IS 1180 / IS 2026
Rating	Upto 10000KVA
Input Voltage	Upto 66kV class
Cooling	ONAN / ONAF
Configuration	Three Phase
Frequency	50/60 HZ
Insulation Class	A
Type of Winding	Strip / Wire
Winding Material	Copper / Aluminum
Vector Group	Dyn11 / As per requirement
Core	CRGO
Operating / Ambient Temperature	45 Degree
Tap Changer	OCTC / OLTC
Oil	Mineral

CAST RESIN TRANSFORMER (CRT)

Application

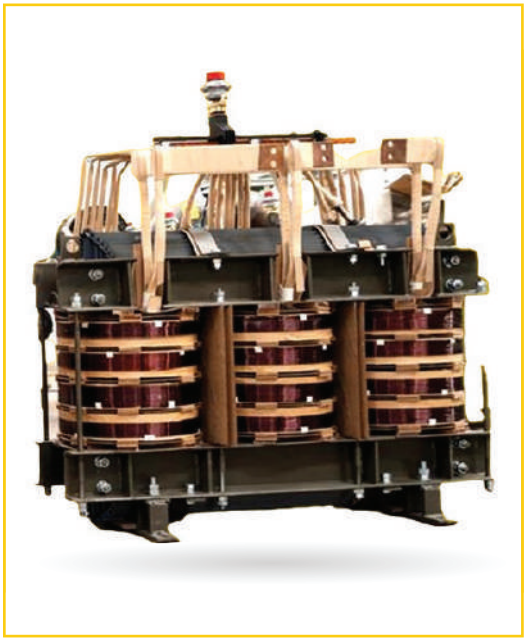
Cast Resin Dry-Type Transformers (CRTs) are versatile and widely used in various applications due to their superior safety, reliability, and environmental friendliness.

- Industrial Facilities
- Commercial Buildings
- Residential Areas
- Renewable Energy Systems
- Transportation Infrastructure
- Cement Industries
- Steel Industries
- Infrastructure Utilities
- Railways & Metro & Airports
- Ships & Offshore Platforms

Specifications

Type	Cast Resin Dry-Type Transformer
Reference Standard	IEC 60076 / IS 11171 / IS 2026
Range	Upto 2500KVA
Voltage Class	Upto 33KV Class
Winding Material	Copper / Aluminum
Type (Duty)	Indoor / Outdoor
Vector	Dyn11 or as per requirement
No of Phase	3 Phase
Type of Winding	Strips / Wire
Cooling	AN / AF
Core	CRGO
Tap Changer	OCTC / OLTC / OCTL
Enclosure	As per requirement

VACCUM PRESSURE IMPREGNATED (VPI) TRANSFORMER



Application

VPI transformers are versatile and widely used in various applications due to their superior performance and reliability.

- Industrial Facilities
- Manufacturing plants
- Chemical and petrochemical industries
- Power generation and distribution
- Shopping malls
- Office buildings
- Hotels
- Hospitals
- IT Centers
- Railway stations & Airports
- Metro systems
- Oil refineries
- Chemical plants

Specifications

Type	VPI (Vacuum Pressure Impregnated) Dry-Type Transformers
Reference Standard	IEC 60076 / IS 11171 / IS 2026
Range	Upto 2500KVA
Voltage Class	Upto 33KV Class
Winding Material	Copper / Aluminum
Type (Duty)	Indoor / Outdoor
Vector	Dyn11 or as per requirement
No of Phase	3 Phase
Type of Winding	Strips / Wire
Cooling	AN / AF
Core	CRGO
Tap Changer	OCTC / OLTC / OCTL
Enclosure	As per requirement

Join Us In Powering The Future

Whether you're a utility, industrial facility, or commercial enterprise,
Trio Transformer is your trusted partner for power solutions. Contact us today to discuss your specific needs and explore how we can help you achieve your goals.

Manufacturing Unit

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