KNT

WHERE SAFETY
MEETS INNOVATION

CERTIFIED ISO 9001-2015 COMPANY

KNT POWER INDIA PVT. LTD.

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ABOUT US

KNT POWER INDIA PVT LTD is a private sector company, established in 2012. This company was earlier known as KN Technologies, it is an ISO certified and MSME approved company, our make **"KNT"** produces a wide range of Power and Distribution Transformers in addition to other electrica products such as Servo Voltage Stabilizer, Rolling contact / Linear Servo Stabilizer, Step dov Transformer, Isolation Transformer, CVT, Variable Auto Transformer, On line UPS.

We welcome your specific enquiry for both the standard range as well as the custom desig units for any application which can be made ready within shortest period.

It is our commitment to provide you customise product as per your requirement with world clas quality & economical price.

Main Products

1- Power Transformers
2- Distribution transformer
3- Inverter Duty Transformer/Solar Transformer
4- Servo Voltage Stabilizer
5- Rolling contact / Linear Servo Stabilizer
6- Step down Transformer
7- Isolation Transformer
8- Variable Auto Transformer
9- CVT
10- On line UPS

Value for money

It is the policy of KNT to mention all actual measured parameters on its name plate. This is being strictly adhered to in conformation to quality standards. There is no compromise in the quality raw material to compensate market competition. The customer is therefore fully protected from any under specification thereby ensuring full value for money.

Research and Development

The company has a comprehensive setup for Research and Development. The research tear constantly engaged in improving the product quality as well as utility and developing innovat Power Systems. R&D department is highly skilled research team which is the unique feature tha makes KN Technologies the only Manufacturer in the State to have quality products distinct frc others.

Service

We give great importance to Customer Care and have a separate wing for Service Activities. Th wide service network in different locations with mobile connectivity to cater the needs of the customers when required. Our service engineers are well qualified, trained, equipped and competent to satisfy every customer. Needless to say, our service if ever needed is swift and exemplary.

Testing

We are equipped with all Testing Equipment to ensure the quality of Transformers, Servo Stabilizer, Ultra & K-Rated Isolation Transformer, Auto Transformer, Online UPS, Con Panels. The company testing section has Fluke Power analyzer Testing Panel Board, HV K Meager Test, Oscilloscope, Power Meter, Watts meter etc., which all are calibrated every year as per ISO norms. We perform all the recommended Routine Test, Type Test & Special Tes per, IS:1180, IS:2026, IEC:60076 or as applicable. We have also successfully conducted Test & Special Test at NABL's accredited Testing Labs like CPRI, ERDA, ERTO & NTH etc.,

we also offer the Third Party Inspection as per customer's requirement.

Quality Policy

We at Golden Electronic Controls India P Ltd are committed to maximize the custo satisfaction and strive to achieve the goal of excellence through ongoing development, qu products and services.

Why choose us

- Products at a very competitive price
- Fastest delivery all over the globe
- After sales service backed by a strong service team

Our Benefits

- We are passionate about Quality of Products
- Focusing on "Customer Satisfaction"
- Team consists of professional Managers/Engineers

Application

- Residential/ Offices
- CNC Machines
- Mall & Commercial Comple
- Air Conditioning Plants
- Motor Loads
- Bio Medical Equipment
- Induction Heating
- Defense Application
- Lighting Loads
- High Rise Building
- Tunnel Projcts
- Oil & Gas Plants
- Highway Contruction Projects
- Farm Houses
- Hotels
- Hospitals
- Telecommunication Networks
- Data Processing Equipment
- Drives, PLC's
- Industrial Units
- R & D Institutions
- Sophisticated Laboratories
- Textile Industries
- Plastic Industries
- Steel Industries
- Refineries

SERVO VOLTAGE STABILISER

Upto 3000 KVA

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Introduction

Power fluctuations and breakdowns are very common in India. Have you ever noticed a light bulb glow dimmer (under-voltage) or brighter (over-voltage) than usual? This can seem trivial but think of huge electrical equipment in industries. These fluctuations have a negative impact on productivity and also risk the lifespan of industrial equipment or home appliances for that matter. Over and above, it leads to an increase in operating costs and can cost a hefty sum of money on the repairs and maintenance.

Does this sound alarming?

Then again, no worries. **"KNT"** servo stabilizers are here to support you. Which provide various types of stabilizers to overcome the faults and correct the voltage fluctuations. More on that later, but let's first understand a little about servo stabilizers.

Servo Stabilizer and its working principle

"KNT" Servo Stabilizer is a voltage regulating device that detects the voltage deviations upfront and ensures accurate and constant voltage supply to the equipment connected to it. The main components of a servo stabilizer include – a servo motor, buck-boost transformer, dimmer, contactor or relay electronic circuit, etc.

The servo motor in the stabilizer moves the shaft in a clockwise and anti-clockwise direction, which will produce an effect in the buck-boost transformer thereby changing the voltage accordingly at the secondary coils. This manipulated voltage is sent to the equipment connected to it.

There are two main types of servo stabilizers available in the market – Oil-cooled Servo stabilizers and Air-cooled Servo Stabilizer. For outdoor installation, an oil-cooled model is preferred and for indoor residence, an air-cooled servo stabilizer is preferred to prevent pollution.

Servo stabilizers have a widespread application in almost every industrial, commercial and domestic sector for fulfilling the stabilization needs.

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SERVO VOLTAGE STABILISER

Upto 3000 KVA

Technical Specifications:

Rating	Upto 3000 kVA, 3 Phase, 4 Wire
Phase	Single Phase / Three Phase
Input Voltage Range	340V to 460V, 320V to 460V, 300V to 460V,150 V to 460V, 47Hz to 63Hz, 4 Wire
Output Voltage	220V +/- 1%, 400V +/- 1%
Duty Cycle	Continuous 24x7
Waveform Distortion	Nil
Response Time	Less than 10ms
Suitability	Suitable for all power factor loads
Cooling	Air Cooled /Natural Oil Cooled(ONAN)
Class of Insulation	Class A
Breakdown Strength & IR	1500V AC For 2 Minutes. Greater than 50 Mega Ohms at 500V DC
Operations	Autmatic/Manual Operation
Installation	Indoor type (Out Door Type Also Available)
No Load Loss	Less than 0.4 %
Efficiency	98-99%
Ambient Temperature	-20° C to +50°
Winding & Wiring Material	Copper EC grade (99.9% Pure)
Drive	Direct AC drive for fastest voltage correction and durability
Controls	All the three phases controlled individually for better volta and load management.

Optional Features & Protections

- High Voltage Cut Off
- Over Load Cut Off
- Single Phase Preventer
- Phase Sequence Corrector
- Earth Fault Protection
- Change Over or By Pass
- Phase Reversal Cut Off
- Low Voltage Cut Off
- Short Circuit Protection
- Surge & Spike Protection

DISTRIBUTION & POWER TRANSFORMERS

Upto 5 MVA & 33 KV LINE

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Distribution Transformer Manufacturers

A distribution transformer is a typical kind of transformer used in the electric power distribution system that receives energy from higher voltage levels, transforms, and distributes this energy to the lower voltage level needed for the application.

It is a common type of transformer that can be found in almost every electrical system across residential, commercial, and industrial applications. It is also known as a Service transformer.

Why do we need Distribution Transformers?

As we know, the power generated from the generation plants is stepped up for high voltage for long-distance transmission. Thus, the output power in the distribution substation will be very high and will not be suitable for domestic and industrial use.

So how do you think we are able to use our appliances the way we do? Well, this is where a Distribution transformer comes into the picture. Typically, the Distribution transformer steps down the high electrical energy up to 33 kV for industries and 440 volts to 220 volts which is a normal voltage appropriate for domestic purposes in India.

Why should you choose “KNT” as your Distribution Transformer Supplier?

We are an ISO 9000:2015 certified company and are one of the prime distribution transformer suppliers in India. Our experience and our team expertise work in accordance with your individual needs to make sure you receive what you want, and this is what differentiates us from the rest of the distribution transformer manufacturers in india.

Salient features of “KNT” Distribution Transformer

In “KNT”, each component of the distribution transformer such as the Oil Tank (that comprises the core and windings), Conservator, Buchholz Relay, Thermal Relay, Bushing, Radiator, etc. is constructed with imported premium quality materials and with utmost care.

Below are some of the factors that can persuade you to buy our product.

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DISTRIBUTION & POWER TRANSFORMERS

Upto 5 MVA & 33 KV LINE

Reduced Losses

Distribution transformers always tend to be in energizing conditions even if there is no lo connected to them. This means they are prone to iron and copper losses. "KNT" Power transformers core and coil are designed with small leakage reactance and minimum voltag regulation thereby providing maximum efficiency with reduced Iron and Copper losses.
Ideally, a distribution transformer has its maximum efficiency when operated at 50-70% load.

Higher Energy Efficiency

"KNT" cutting-edge technology and manufacturing practices enable the consumers to enhan energy sustainability while reducing environmental impact, thus making them the front runn among the other distribution transformer suppliers.
"KNT" manufacturing practices result in reduced energy costs, reduced greenhouse gas emissior and a reduced need for additional generating capacity. Also, this produces additional operatior benefits such as improved quality, improved productivity, and reduced maintenance burdens.

Specifications of our Distribution Transformers

"KNT" distribution transformers are very efficient with reduced losses and low noise resolution. Their specifications include,

- **Rated Power:** 25 kVA – 5 MVA
- **Minimum System Voltage:** 433 V
- **Maximum System Voltage:** 11kV, 22kV, 33kV
- **Phase:** Three-phase
- **Mount:** Pad-mount, Pole-mount
- **Vector Group:** As specified
- **Insulation Material:** Insulation paper
- **Cooling Methods:** ONAN/ONAF
- **Guarantee for the Product:** 2 years
- **Warranty for the Product:** 2 years

Well, this isn't all. Besides the above specifications, we do offer custom-made transformers to exactly match your requirements and this is why we are the most reputed distribution transformer suppliers In North India.

DISTRIBUTION & HERMETICALLY SEALED TRANSFORMER

Upto 5 MVA & 33 KV LINE

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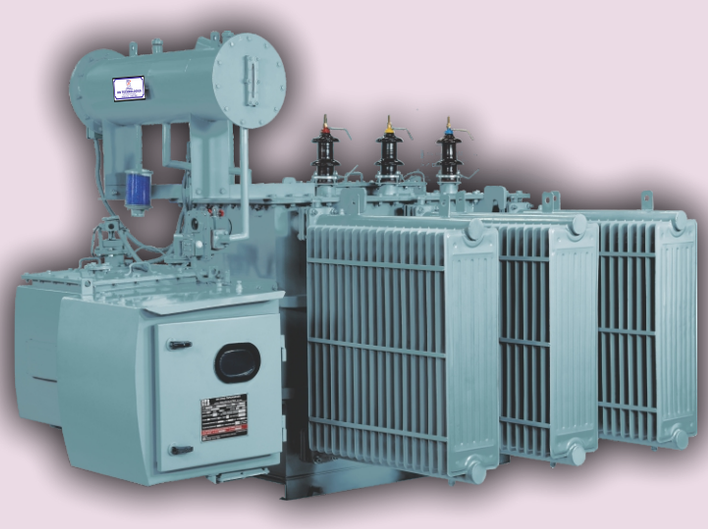
DISTRIBUTION TRANSFORMER

A distribution transformer is a type of transformer that reduces high-voltage electricity from power stations down to lower levels suitable for distribution to end-use residential, commercial and industrial customers. It essentially acts as the critical link between the high-voltage transmission network and the low-voltage distribution network in the power system.

Distribution transformers come in various standard sizes and power ratings to match different distribution voltage levels as well as load demands. They are usually installed on utility poles, ground pads or underground vaults near the area being served.



HERMETICALLY SEALED TRANSFORMER

Hermetically sealed oil transformers are normally manufactured with a sealed tank equipped with fins that allow for the expansion at the said temperature variations. The tightness of the tank is up to 0.5 Bar. This type of transformer is the most widely used globally. In the hermetically sealed transformer, the oil does not come into contact with air and its electrical properties are therefore not compromised, ensuring a long life span of the transformer. For power ratings exceeding 3150kVA, or in case of a transformer with radiators, the transformer can still be hermetically sealed by means of a nitrogen cushion. These type of distribution transformers can be designed and manufactured bespoke with top or side connections.

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INVERTER DUTY & ISOLATION TRANSFORMERS

Upto 5 MVA & 33 KV LINE

INVERTER DUTY TRANSFORMER

Solar inverter duty transformers are used to transfer electrical energy while maintaining the change frequency, and their name mainly depicts their main usage in inverters. As they can convert DC supply into AC supply with a lower voltage requirement, these transformers are helpful to step up the voltage at a value higher than the equipment requirement.

They were explicitly designed in Noida in Uttar Pradesh for solar and wind energy applications to provide multiple windings on the transformer's primary side. This is helpful in the enhancement of their performance and connecting the inverters to the grid.

ISOLATION TRANSFORMER

Isolation transformers are static devices designed with separate primary and secondary windings. These windings keep the two circuits physically and electrically distinct. The device transfers electrical energy between the circuits using a mechanism known as magnetic induction. This process involves generating an electromotive force (EMF) in another circuit using a magnetic field, without altering the frequency.

Isolation transformers are employed in transmission and distribution networks to adjust voltage levels. In these networks, the voltage and current capacities on both the primary and secondary coils are equal. The primary function of an isolation transformer is to eliminate voltage spikes in supply lines. These spikes can cause service disruptions or damage to equipment.

POWER TRANSFORMER & TRANSFORMER WITH BUILT-IN HT AVR

Upto 5 MVA & 33 KV LINE

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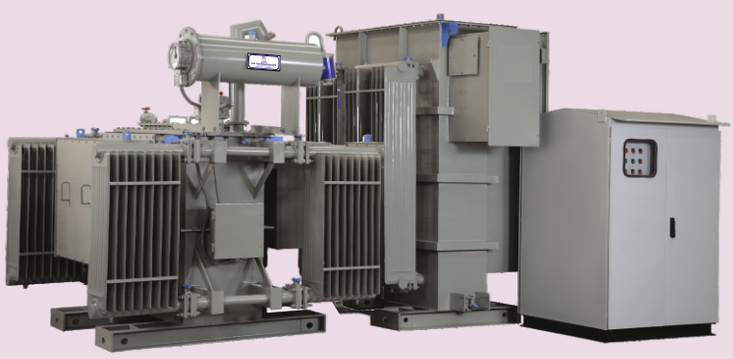
POWER TRANSFORMER

Power transformer is an electrical device that transfers electricity from one circuit to another after changing its voltage power. All the incoming electricity supply passes through this apparatus to deliver high voltage or low-voltage power based on the process's requirement. Generally, power generators find application in every scenario concerning electricity usage.

A power transformer works on Faraday's electromagnetic induction law. The same principle applies to generators, inductors, motors, and solenoids. According to the law, when the alternative current gets passed through a coil or primary winding, it generates fluctuating magnetic flux. The magnetic flux then passes through a ferromagnetic core before transmitting into a secondary winding.

When moving through the secondary winding, the magnetic flux generates electromagnetic induction giving rise to an electromotive force or emf. This induced power in the form of emf facilitates the flow of electricity in the secondary winding. The emf generated in the secondary winding can be detectable

TRANSFORMER WITH BUILT-IN HT AVR



AVR Transformers combine a **Transformer with a built-in HT AVR.** Automatic voltage regulators built into sensitive electric devices, equipment, or appliances help to protect them from line voltage transients. These devices are constructed from high-quality raw materials and fractions obtained from market leaders. These devices are widely used in various plants and industries for effective power allocation and regulation.

CONSTRUCTION & WORKING :

The fluctuating voltage received from electricity authorities is initially stabilized by the Built-In HT Automatic Voltage Stabilizer and then fed to the Transformer, providing constant LT Output within +/-1% accuracy.

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DISTRIBUTION & POWER TRANSFORMERS

Upto 5 MVA & 33 KV LINE

STANDARD FITTINGS

1. Rating and diagram plate.
2. Earthing terminals - 2 Nos.
3. Lifting lugs
4. Oil level indicator (Plain)
5. Drain-cum bottom filter valve with plug.
6. Oil filling hole with plug on conservator.
7. Oil conservator with drain plug.
8. Air release plug.
9. Silica-gel air breather.
10. Bi-directional flat rollers.
11. HV terminals-outdoor bushings.
12. LV terminals-outdoor bushings.
13. Radiators.
14. Filter valve with plug.
15. Thermometer pocket.
16. Oil temperature indicator.
17. Externally operated off circuit tap changing switch.
18. Explosion vent.

OPTIONAL ACCESSORIES

1. LV and HV cable boxes
2. Winding temperature indicator (WTI).
3. Buchholz relay
4. Magnetic oil level gauge
5. Marshalling box
6. Disconnecting chamber
7. Oil temperature indicator with electrical contacts (OTI)
8. Pressure relief valve.

ROUTINE TESTS

All transformers are subjected to all routine test. These includes:

● Insulation Resistance Test ● Resistance measurement of winding ● Turns Ratio Test ● Polarity and phase relationship test ● No load losses measurement ● Excitation current measurement ● Impedance voltage test ● Load losses measurement ● Insulation oil test l Dielectric test ● Leakage test of transformer tank

Type Tests

Type test are special optional tests. These tests are carried out an additional fees, to be borne by the customer.

● Impulse Voltage Test ● Temperature Rise Test ● Short Circuit Test

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LINEAR TYPE SERVO VOLTAGE STABILIZER

Upto 3 MVA

MAIN FEATURES

* Linear type vertical rolling contact type regulator
* Life span > 20 years
* Warranty 5 year unconditional
* Suitable for continues 100 % duty cycle

ADVANTAGES

* Up to 80% reduction in failure rate of electrical equipment
* Power saving
* Reduction in MDI
* Improvement in power factor
* Uniform quality of end products
* Improver productivity of the plant
* Owing to its high efficiency & associated benefits
* The pay-back period for the cost Linear servo stabilizers is generally between 6 to 12 months. and it saves you significant costs in subsequent years through its life.

ROLLER TYPE REGULATOR

* Power consumption is 0.5 to 1.5% depending upon the input voltage range
* Suitable for continuous 100% duty cycle
* Life at full load is 15-20 years
* Five years unconditional guarantee
* Negligible losses in full boost & buck condition

FLAT CARBON BRUSH REGULATOR

* Power consumption is 2 to 7% under similar conditions
* Suitable for only 60 % to 80% duty cycle
* Maximum life is 5 -10 years at full load
* Normally guarantee for one year
* Max. losses in full boost and buck condition

ROLLING CONTACT / LINEAR TYPE SERVO VOLTAGE STABILIZER

- Specialy designed high performance controller-based control circuit for ultra-high reliability.
- All parameter like O/P V, I/P V high, low cutt off, time delay, overload, set by front control panel. High efficiency >98 %
- Fast correction speeds up to 60 V/ Sec. variable speed servo motor and proportional control circuit provide a response time of 10mse to correct voltage fluctuations without noise or oscillations in output.
- Accuracy t 1 % from no load to full load
- Auto / manual operation facility.
- Plug and play single control card for easy serviceability.
- Reduced power loss and resultant lower running cost yield higher cost savings and help the customer recover the cost difference in few months.

Technical Specifications:

Rating	Upto 3000 kVA, 3 Phase, 4 Wire
Phase	Three Phase
Input Voltage Range	340V to 460V, 320V to 460V, 300V to 460V, 150 V to 460V, 47Hz to 63Hz, 4 Wire
Output Voltage	220V +/- 1%, 400V +/- 1%
Correction Method	Rolling Contact/ Linear Type On- Load Voltage Regulator With Stepless Regulation
Duty Cycle	Continuous 24x7
Waveform Distortion	Nil
Response Time	Less than 20ms
Suitability	Suitable for all power factor loads
Cooling	Air Cooled /Natural Oil Cooled (ONAN)
Class of Insulation	Class A
Operations	Automatic/Manual Operation
Installation	Indoor type (Out Door Type Also Available)
No Load Loss	Less than 0.4 %
Efficiency	As Per IS
Ambient Temperature	-15° C to +50°
Winding & Wiring Material	Copper EC grade (99.9% Pure)
Drive	Direct AC drive for fastest voltage correction and durability
Controls	All the three phases controlled individually for better voltage an load management.
Mounting Arrangement	On Unidirectional Wheel

Optional Features & Protections

- High Voltage Cut Off
- Over Load Cut Off
- Single Phase Preventer
- Phase Sequence Corrector
- Earth Fault Protection
- Change Over or By Pass
- Phase Reversal Cut Off
- Low Voltage Cut Off
- Short Circuit Protection
- Surge & Spike Protection

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PRODUCT RANGE

Rolling Contact Servo Stabilizers, Digital Servo Voltage Stabilizers , HT AVR / Built in AVR , Distribution Transformer , Power Transformer , Solar Inverter, Solar Converter, Solar Panels , Variable Auto Transformers (Dimmer) , Isolation / Ultra Isolation Transformers , Inverter, Battery, Battery Charger , Online UPS

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