# POWERING EVERY HOUSE, POWERING EVERY INDUSTRY.



www.cosmostat.in

# About us

**Cosmostat** is 25 Years old Reputed company specializing in Manufacturing , Trading & Export of all Electrical Goods. Established in 1994, we are today amongst the top companies working in this field.

We provide a huge basket of products under one roof to meet various project requirements. The company principally competes on the basis of product quality and performance, reliability of supply, timely delivery, customer service and price. We are the manufactures & supplier of

- Power Transformer up to 50 MVA
- Distribution Transformer up to 5000 KVA
- Dry Type Transformer Up to 2500 KVA
- Compact Substation up to 2500 KVA
- Digital Servo Stabilizer up to 1000KVA
- Rolling Type Servo Stabilizer
- HT AVR
- · Diesel Genset
- VCB & RMU
- Control Panel
- Variac up to 1200 AMP.
- CVT up to 10 KVA
- Servo Motor up to 40 Kg. Torque
- Step Up/Down Transformer
- Isolation Transformer

#### **Our Vision**

Our Vision is to provide a on time delivery and services to the Global Energy and process industries, Power Plants, Cement industries, Sugar industries, Hydel Power Plants, Steel Industries, Thermal Industries, Oil & Gas industries, Chemical Industries, Solar & Wind industries, Paper Industries, Textile Industries, Syntactic industries, Clod storage, Rice mill, Showroom, Hospital & Shopping mall.

#### Our Expertise

**Cosmostat** had good technical expertise, Engineering support team, Qualified technicians and good representative to understand customer requirements. We can offer easy ordering, reliable delivery on day dispatch.

# Capacity: Up to 50 MVA

Power Transformers made of Cold Rolled Grain Oriented (CRGO), Double Wound type, liquid filled (Oil or Synthetic Ester e.g. Midel).

Comprehensive range of Power Transformer provides many solution of choice such as cost effective, fully compliant, matching requirements, etc.

Our Transformers are designed to comply with and satisfy the high demands of modern distribution networks. They are manufactured in accordance with national and international standards.

Our dedicated account managers and expert design engineers provides solution that best suits the project budget and the system requirements.

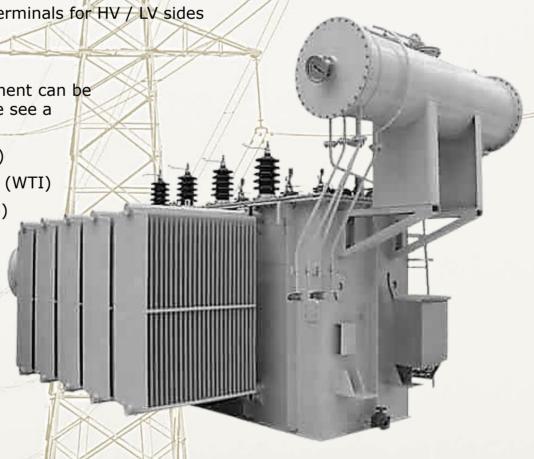
# **Basic Specifications**

- Power Transformers are generally available in liquid filled type. Basic specification comprises:
- Off-Circuit Tap Changer or Selector
- On-Load Tap Changer with Drive Mechanism
- Remote Tap Change Control Panel with AVR
- OLTC Parallel Operation Control.
- Cooling specifications to ONAN, ONAF, OFAF, KNAN, KNAF
- Indoor Cable Box or Outdoor Terminals for HV / LV sides

# **Ancillary Equipment's**

Supplementary / Ancillary Equipment can be fitted as per requirements. Please see a typical list below:

- Oil Temperature Indicator (OTI)
- Winding Temperature Indicator (WTI)
- Magnetic Oil-level Gauge (MOG)
- Pressure Relief Device (PRD)
- Marshalling Box
- Forced Fan Cooling
- OLTC & RTCC Panel with AVR
- Bi-directional Rollers
- Radiator Valves
- · Dehydrating Breather
- Current Transformer
- · Additional Neutral Terminal



# Capacity: Up to 5000 KVA

Distribution Transformers made of Cold Rolled Grain Oriented (CRGO), Double Wound type can be supplied both liquid filled (Oil or Synthetic Ester e.g. Midel) or dry type (Cast Resin).

Comprehensive range of Distribution Transformer provides many solution of choice such as cost effective, fully compliant, matching requirements, etc.

Our Transformers are designed to comply with and satisfy the high demands of modern distribution networks. They are manufactured in accordance with national and international standards.

#### **Standard Accessories**

- HV Off-Circuit Tap Changer (+/-2.5% or +/-5.0% or +7.5%),
- HV Indoor Cable Box or Outdoor Bushing Terminals
- LV Outdoor Bushing Terminal for Neutral Earthing
- LV Indoor Cable Box or Bus-Duct Adaptor Box
- Conservator with Plain Oil-level Gauge (POG)
- Skid Base with Bi-directional Rollers
- Tank Lifting Lugs & Jacking Pads
- · Oil Drain & Filtration Valve
- · Rating & Diagram Plate
- · Thermometer Pocket
- Dehydrant Breather
- Earthing Terminals

# **Optional Accessories**

- · Oil Temperature Indicator (OTI)
- · Winding Temperature Indicator (WTI)
- Gas/Liquid Operated Relay (GOR)
- · Magnetic Oil-level Gauge (MOG)
- Pressure Relief Device (PRD)
- On-Load Tap Changer (OLTC)
- Remote Tap Changer Control Panel (RTCC)
- Window Annunciation in Control Panel
- Air Forced Cooling Fans
- Fan Control Panel
- Marshalling Box
- Radiator Shut-Off Valves



# Capacity: Up to 2500 KVA

A cast resin dry-type transformer is used in different commercial, industrial, and utility applications, as they come with various benefits. The advancements in this transformer have technologically made electrical devices efficient and compliant over the years.

Initially, these transformers were set up to be created in the city of Vadodara of Gujarat over 55 years back. The company flourished as it expanded with experiments directed at the invention of new and better transformers.

A cast resin dry transformer doesn't require insulating liquid when its core (winding) is penetrated in a solution. These are kept in a sealed tank under air pressure.

# **Basic Specifications**

- These are the main benefits of using a cast resin dry type transformer:
- Easy installation technique
- Quick maintenance and pollution-free design
- Safe
- · Low side clearance
- Environment-friendly
- · Supports overloads excellently
- Affordable for fire protection and civil installation systems
- Resistant to short circuits, low dielectric heating
- · Works well in moisture

- These transformers are primarily found in: Forests
- Substations in the city
- · Gas, oil, and chemical industries
- · Environmentally challenged areas
- · Underground substations
- Renewable energy generation lands.



# Capacity: Up to 2500 KVA

Being one of the well-distinguished companies in the market, we are involved in offering Compact Electrical Substation.

A Unitized Substation (USS) is a nutshell product comprising of various substation equipment, housed inside a metal enclosure, such as a step-down transformer, a Vacuum Circuit Breaker (VCB) or a Ring Main Unit (RMU) on High Voltage (HV) side and Low Voltage (LV) distribution panel in LV side compartment.

The fully equipped package substation (PSS) comprises of outdoor duty enclosure, medium voltage switchgear, distribution transformer, low voltage panel & AFPCR panel (optional) is a state of art equipment for all your power distribution requirements. The factory assembled self-contained package substation is a complete

# **Range of Compact Substation**

- 11kV 63-2500kVA Indoor / Outdoor Compact Substation Panel.
- 22kV 63-2500kVA Indoor / Outdoor Compact Substation Panel.
- 33kV 63-2500kVA Indoor / Outdoor Compact Substation Panel.

#### **Features**

- · Factory assembled and ready to install.
- Compact Construction.
- Ease of access to components.
- Reduction in installation space, cost & time.
- SCADA Compatible.
- Standard design / low weight / small volume / transformer room accessible both side
- Shutters / provisional cable entry / 100% non-porous powder coating.
- ADVANTAGES Compact, Safety and Aesthetically superior.
- Reduced Electrical losses as USS can be provided near the Load Center.
- A High degree of safety and operational reliability is achieved by HT & LT Switchgears and protective relays to avoid overloading.
- Reduction in logistic cost as USS is packaged and delivered as one unit.
- · Low Civil/Foundation Cost.



- Commercial Buildings
- Mining
- •Oil & Gas Plants
- Industries
- Hospitals
- Solar Plants etc....

# Capacity: 2 KVA - 1000KVA

In some or other way Voltage Fluctuation is a common phenomenon in every part of life and keeping is view the current electrical modifications, "stable electricity distribution will take a long way". Normally Input voltage is low during day time and high during night hours resulting in frequent electrical breakdown and consequently effects the production and overall expenses.

The importance of the use of Digital Servo Stabilizer with sensitive electronics & electric equipments is well known. No one like to risk the life of their costlier appliances, CNC machines, electrical equipment, printing machine etc. by connecting it directly to unestablished fluctuating AC supply.

COSMOSTAT Digital Servo Stabilizer has been designed to give a constant output voltage with accuracy of  $\pm 1\%$  which allows the optimum current drawing and as such no excess power is consumed at low as

## **Specifications**

Standard Confirm to latest IS-9815 & IS

2026

Input Voltage Single phase: 160-260V, 140-

Ranges 280V, 110-270V (Can be

customized)

Three Phase: 280-460V, 240-480V,

200-470V (Can be customized)

10 - 60V/sec (as required)

Output Voltage

ranges

Single Phase:  $220/230/240 \pm 1\%$ Three Phase:  $380/400/415 \pm 1\%$ 

Input Frequency 47 – 53 Hz

Response Time Instantaneous (mili sec)

Correction

Speed

Step less correction

Correction Method

Cooling Natural Air / Natural Oil

Efficiency More than 98%

Duty Cycle Continuous 24 Hrs.

Operation Auto/Manual

No Load Loss Less than 0.4%

Compatibility Specially designed control card for

F--t

Test faithful operation on mains as well

as DG Set

Suitability Suitable for 100%

Unbalanced/Balanced Supply &

100% Unbalanced/Balanced Loads

Operating -15°C to 50°C ambient

Temperature

**Applications** 

Air conditioning plants

CNC Machine

Industrial & Lighting Loads

Telecommunication System

Cement Plants

Distilleries & Beverages

Rubber Industries

Medical Equipments

Cold Storage plants

•Mall & Commercial Complex

Laboratory etc...



# Capacity: Up to 10000 KVA

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- Compact Construction.
- Ease of access to components.
- Reduction in installation space, cost & time.
- SCADA Compatible.
- Standard design / low weight / small volume / transformer room accessible both side
- Shutters / provisional cable entry / 100% non-porous powder coating.
- ADVANTAGES Compact, Safety and Aesthetically superior.
- Reduced Electrical losses as USS can be provided near the Load Center.
- A High degree of safety and operational reliability is achieved by HT & LT Switchgears and protective relays to avoid overloading.
- Reduction in logistic cost as USS is packaged and delivered as one unit.
- · Low Civil/Foundation Cost.



- Commercial Buildings
- Mining
- ■Oil & Gas Plants
- Industries
- Hospitals
- Solar Plants

# Capacity: 2 KVA - 1000KVA

A normal distribution transformer generally Steps-Down the voltage from H.T. to L.T., however it cannot take care of the fluctuating voltage and most of the times and at most of the sites, it has been realized that, the problem of fluctuating voltage remains, resulting in improper function of electrical systems. H.T. Transformer with Built In H.T. Automatic Voltage Stabilizer provides total solutions for voltage fluctuation and stabilization. The unit is basically a combination of H.T. Automatic Voltage Stabilizer and standard H.T. Distribution Transformer working in conjunction. These are available up to 5000 KVA in 11 KV & 33 KV Class.

Standard transformers can correct limited voltage variations and cannot regulate the voltage in 'on load' condition. The only smart way to tackle this problem is by installing highly efficient H.T. Transformer with Built In H.T. Automatic Voltage Stabilizer. These systems can be used in various industrial and commercial applications.

#### Construction

- Generally H. T. Automatic Voltage Regulator consist of two tanks to facilitate servicing of the moving parts of Rolling Contacts and other components in the regulator without disturbing the main tank containing Transformers.
- Carbon rollers goes around the length of the coil track & are assembled on a fiber glass carrier board
- The rollers are connected to the electric output terminals
- Parallel connection of compensating winding near the regulating coil is done
- The connection between the windings and regulating coils is short circuited so as to reduce the effect of core-flux fringing
- It keeps the reactance of the regulator constant at any position of the rolling contact

# **Specifications**

- · Capacity: Up to 10000 KVA
- No. of Phases :3 Phase
- Frequency:50 Hz.
- Voltage Range :11 KV/ 33 KV
- Tapping :-30% to +20%
- Insulation :Class 'A'
- Vector Group :Dyn 11
- Duty Cycle :Continuous
- · Winding :Copper Wound
- Terminals : As per required

# Standard fitting

- Rating & Diagram plate : Earthing terminals
- Lifting lugs :Thermometer pocket
- Oil Conservator with drain plug :Air release hole with plug
- Oil Level indicator : Explosion vent with diaphragm
  - Top-filter Valve :Inspection cover
- Silica gel breather :Drain -cum-bottomfilter valve
- Cooling radiators :Uni / Bi- directional rollers



# Capacity: Up to 2500 KVA

We are one of the foremost wholesaler trader and service provider of Kirloskar Diesel Generator, Cummins Diesel Generator, Caterpillar Diesel Generator Set, Generator Rental, Used Diesel Generator, Silent Diesel Generator, Eicher Diesel Generator, MTU Diesel Generator, Parkins Diesel Generator, DG Sets, Industrial Power Generator, Mahindra Diesel Generator, Volvo Penta Diesel Generator and much more. Our professionals work in close coordination to assure a high-quality assortment of products to the customers. We have recruited a team of professionals. In addition to this, to avoid disputes in the workplace, our professionals strive dedicatedly. Owing to our fare policies and the best quality products.



#### **RMU**

RMU Panel is a switchgear of SF6 protection. It is offered with a vacuum circuit breaker as well as SF6 switch disconnector. It has a compact design and is simple to set up as well as operate. This is highly apt for the modern power distribution system. This is a gas-insulated and medium voltage cabinet, which can measure, integrate and connect the transformer protection tasks. RMU Panel is a low-maintenance, safe, consistent, and effortless to replace switchgear. 95/125 is its Rated Impulse Withstand Voltage.



#### **VCB**

A VCB panel is a type of circuit breaker where the arc quenching occurs in vacuum environment. VCB technology is ideal for medium voltage applications. Vacuum Circuit Breaker is renowned technology today and is also known as the most reliable current interruption technology for medium voltage switchgears.



#### **Control Panel**

We are one of the prominent manufacturers, suppliers, wholesaler and exporters of Energy Saving & Electrical LT Panels that are engineered as well as manufactured in compliance to the latest trends of the market.

# **Type of Panel**

- · Distribution panel
- APFC Panel
- AMF Panel
- DG Synchronizing Panel
- Load Sharing Panel
- · Feeder Panel etc..

#### **Features**

- · Best quality
- · Precision designed
- · High strength
- · Low maintenance
- Excellent in functionality
- · Long service life
- · Easy to maintain









**Feeder Panel** 

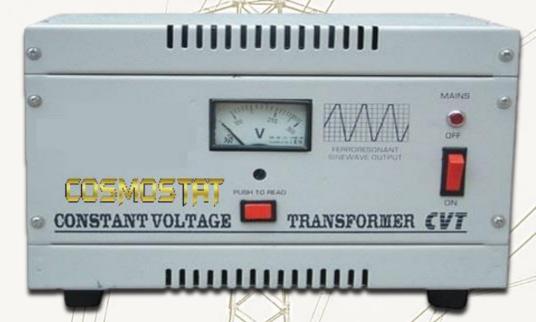
# Capacity: 4 Amp. - 1200 Amp.

COSMOSTAT variac is continuously variable autotransformer, having a single layer winding on a toridol core of high-grade cold rolledgrain oriented (CRGO) steel. On one face of the copper winding along the periphery, a special durable contact surface is made. A Specially finished carbon brush slide smoothly on the surface. A contact arm holding the carbon brush fitted on the centre shaft and as the control knob is rotated the carbon brush slides over the winding and taps of a portion of voltage across the winding. Any desire voltage with in the Maximum range can be obtained by adjusting the position of the Brush. The calibrated dial show approximately output voltage at no load, when the input is at its rated value. Rotation of the arm by manual or motor drive delivers an output voltage from0 to above line voltage.



## Capacity: 100 Va to 10 KVA

The CVT uses the unique principle of Ferro resonance: operation of a transformer in the region of magnetic saturation. When the iron core of a transformer is in saturation, relatively large changes in winding current results in very small changes in magnetic flux. Winding current and magnetic flux are proportional to the input and output voltage, respectively. This means that relatively large changes in input voltage result in small changes in output voltage this being the fundamental purpose of an automatic voltage regulator and providing output voltage with accuracy  $\pm 1\%$  and Instaneous speed of voltage correction (in Milliseconds).



Being constructed without any semi-conductor or any moving part making it highly reliable with No Transient Spikes, Sine wave output and excellent isolation characteristic. The constant voltage transformer series is an ideal power controller for applications where even s small change in voltage level can lead to unprompted downtime, interruption of operations, incorrect data or fragmented result. These constant voltage transformers are specially design for use with sophisticated electronics instruments specially medical instruments, testing equipments, computers, microprocessor based equipments and can be used for other applications as well.

#### **Features**

- Ferrow Resonant Technology
- Magnetic transformer with special construction
- Provided with a capacitor connected across the secondary winding of the transformer
- A separate shunt path is provided between the two windings for setting up the field between coils
- Ensure a spike-free and controlled voltage output
- Instant voltage regulation
- Fast correction speed
- •There is no Semi Conductor or moving part
- Noise proof operation
- •Less maintenance required

- ■Input Voltage 180-260V, AC, Single Phase, 50 Hz
- Output Voltage 230V (other ranges on request)
- ■Response Time Within 3 Cycles
- ■Load Regulation + 2 %
- •Frequency 50 Hz
- Efficiency Approx 90%
- •Harmonic Content Less than 4%
- Overload/short circuit Voltage starts dropping after rating load
- Protection Short Circuit current less than 200% of rated current
- •Insulation Resistance Greater than 500M Ohms
- Wave form Sine Wave

# Capacity: 3 kg - 60 kg

COSMOSTAT A.C. servo motor are widely know for as simplicity in design, rugged construction & relatively low manufacturing cost.



These are basically two phase motor system. The two phase supply is normally not available, hence to operate the motor from single phase AC supply, second phase is artificially created by inserting a RC combination assembly supplied along with servo motor.

#### **Features**

- •Instant start, stop & reversible
- ■Low speed 60 RPM 50 Hz.
- Starting & running current are same
- Maximum torque is 10% higher than the nominal torque

- Servo voltage stabilizer
- Lamination machine
- Medical equipment
- Display system
- Enamelling plant
- Control drives etc.

# Capacity: 1 Kva - 500 kva

"COSMOSTAT" L.T. Transformer is different type & capacities to suite individual requirement. Single/There Phase, Auto/Double Wound, Air/Oil Cooled If the required voltage is lower than supply voltage then its work as step down transformer. If required voltage is higher than supply voltage then its works as a step up transformer. Transformer ratings always consider in KVA. The ratings are depends on input & output voltages & current delivered by the unit



■Make: "COSMOSTAT" make

Rating: Upto 500 KVA - 3 Phase, 4- wire

•Input Voltage: As per customer requirement

Output Voltage : As per customer requirement

•Frequency : 47 - 53 Hz.

•Winding: Copper wound

Tapping : as per customer requirments

•Temp. rise: 45 / 50 Degree cel.

■Type of Cooling: Oil cooled / Air cooled

Duty Cycle : 100 % Continuous

Wave form distortion: Nil

■No Load : 1 % of rated VA

•Load losses at full load : 3 % of rated VA

•Mounting : Floor or Free on wheel.

## **Features**

- Simple & easy to handle
- Rugged mechanical construction
- ■Coils made from 99.9% copper.
- •C.R.G.O. / C.R.N.G.O. silicon steel laminations
- Excellent voltage regulations & efficiency
- ■No waveform distortion
- Excellent short time overload capacity.
- Operating temperature 45° C.
  High short time surge current capacity
  Suitable for indoor use

# **Isolation Transformer**

## Capacity: 1 Kva - 200 kva

"COSMOSTAT" k-rated Isolation Transformer employs a unique multiple shielding techniquethat reduce the interwinding capacitance to below 0.00f picofarads, D.C. Isolation to over 1000 Megaohms and line lekage current to a safe 10 microamps maximum. Whereas an ordinary Isolation Transformer has interwinding capacities of 50 picofarads. "COSMOSTAT" k-rated Isolation transformer has therefore only ten thousand the noise leakage as compared to an ordinary Isolation Transformer. K-rated transformer are available upto designed rating in single phase fro three phase input supply, three single phase units can be connected in STAR configuration.



# **Specifications**

■Make: COSMOSTAT

Input Voltage : As Required

•Acceptable input Voltage: +/- 10 % AC

•Mode Of Operation : As step Down or Step up or

1:1 Isolation Transformer

Common Mode Rejection. (Transient, Spikes,

Surges) : Greater Than 130 dB

•Coupling Capacitance Less Than 0.005

рF

■DC Galvonic Isolation: More than 1000 M ohms

Break Down Strength : 2500V AC For 2 min.

Load Regulation: 3.5 %.

Leakage current : Class "B" type

•Operating temperature range: 15 deg. C to 50

deg. C

#### **Features**

- Advanced version of transformers
- Excellent shielding method with inductance created between the coils
- High noise attenuation
- Less coupling capacitance
- •Suitable to be used as power transformer
- Wide range of operating voltage
- •Isolating neutral & earth
- Low temperature rise
- Extra Filter circuits are not required
- Impedance matching is not require

# save energy,

# it is precious

# Benefit of Energy Efficient products



**Reduces Losses & Saves Power** 



**Boosts Performance & Operation** 



**Minimizes Heat Losses** 



**Environment Friendly** 



High ROI

# Some of Our prestigious Clients

































































Punjabi Bagh Club, Delhi





























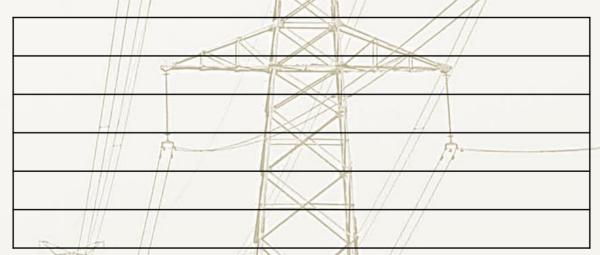


## **OUR VISION**

# Powered by Innovation, Guided by Integrity, We help our customers to achieve their goals

We are committed to highest standards of ethical conduct in all what we do. We believe in honesty and integrity, which are the cornerstone of our business. We recognize that our success as an enterprise depends on the talent, skills and expertise of our people and our ability to function as a integrated team. We believe that our colleagues, customers, partners and all those with whom we interact – is an essential element of all positive and productive business relationships. With this in mind, we strive to excel in every aspect of our business and approach every challenge with determination to succeed.

# NOTE



Regd. Office

# COSMOSTAT

Power Equipments J3/89, J-extn, Kishan Kunj

Laxmi Nagar, Delhi - 110092

+91-9818596585

E-mail: cosmostat@gmail.com

Website: www.cosmostat.in



