# VERTEX



Innovation, Quality & Service.. Par Excellence



Solutions In Power Conditioning

# SERVO STABILISERS THREE PHASE OILCOOLED 3 kVA - 500 kVA





#### **APPLICATIONS:**

- Spinning, Garment, Knitting, Dyeing
- Food Processing, Packaging, Bottling, Printing Press, Granite
- Hospitals, Hotels/Resorts, Showrooms, Warehouse
- UPS Bypass, TV Radio/Stations, Toll Plazas, Metro Rail / Construction Sites
- Water Treatment/Pumping Stations

Three Phase Oil Cooled Stabilisers are used to prevent ingress of dust and foreign particles. The transformer oil is used for cooling of transformers inside the stabilisers. Smaller ratings are widely used in industries like Spinning Mills & Garment.

Higher rating stabilisers are used for large machinery, for a group of machinery or for the entire factory. Induction motors operate at high efficiency and improved power factor when supplied constant voltages. These stabilisers protect expensive manufacturing equipment from High/Low Voltages thus cutting on the maintenance cost.

# SERVO STABILISERS THREE PHASE OILCOOLED 500 kVA - 2000 kVA



#### **APPLICATIONS:**

Centralised Stabiliser requirements for various industries:

- Spinning, Garment, Knitting, Dyeing
- Food Processing, Packaging, Bottling, Printing Press, Granite
- Hospitals, Malls, Warehouse, Educational Institutions
- Water Treatment/Pumping Stations

Three Phase Oil Cooled higher rating stabilisers are used for large machinery, for a group of machinery or for the entire factory. Designed to suit Unbalanced Loads and Unbalanced Input Supply Conditions.

- · Induction motors operate at high efficiency and improved power factor
- Prevents frequent tripping of overload and over / under voltage relays
- Protection from High/Low Voltages
- Increases the life of the Motors / Equipments
- Reduces breakdown of the equipment
- Saves Electrical Energy—Reduced Bills



## SPECIFICATIONS— THREE PHASE STABILISER

Type of Stabiliser	Three Phase Stabiliser - Unbalanced Type
Construction	Indoor Purpose
Type of Design	Servo Stabiliser with O/P sensing feed-back system
Type Of Cooling	Oilcooled
Servo Motor Type	A.C. Synchronous Stepper Motor
Input Voltage Range	360V - 460V /340V - 460V / 340V - 480V / 310V - 480V Designed as per customer requirement
Input Frequency	47 Hz - 53 Hz
Output Voltage	415 V; User Settable - 400 V (OR) 380 V (L - L)
Output Voltage Regulation	± 1 %
Control Design	Microcontroller (Digital Signal Processor) based system
<b>Waveform Distortion</b>	NIL (Output Waveform same as Input Waveform)
Effect of Load PF on O/P Voltage	NIL
<b>Correction Speed</b>	> 50 V/ Sec (Will vary for higher rating Stabilisers)
Response Time	10 milli sec
Efficiency	≥ 98 %
Under / Over Voltage Cut-Off	<ul> <li>Upper Limit +5% (Above set O/P Voltage)</li> <li>Lower Limit -10% (Below set O/P Voltage)</li> </ul>
<b>Output Over Load Protection</b>	Electronic Operative above 110% of rated output current
Phase Reversal Protection	Built-in
Single Phasing Prevention	Built-in
Stabiliser "ON/OFF" Operation	<ul> <li>User Settable Auto Restart 1 sec - 998 sec</li> <li>User Settable Manual Restart</li> </ul>
Display Type	Backlight LCD Display (Will vary as per the Control system)
Parameters Displayed	<ul> <li>I/P &amp; O/P Voltage (L-L &amp; L-N), Hz, Amps R-Y-B</li> <li>Will vary as per the Control system used</li> </ul>
Front Panel Indications	LED Indication for - Input Present, Output Normal
Front Panel User Interface	MENU, UP/DOWN KEY, ENTER/SET KEY
Event Recorder	Fault Analysis - Check for the Control System Used
Input / Output Connection	Input / Output — Terminal Plate with Nut-Bolt arrangement
Emergency Manual Bypass	Built-in (Upto 250 kVA Ratings)
Output Contactor	Built-in (Upto 250 kVA Ratings)
Surge Protection Device (SPD)	OPTIONAL
Ambient Temperature	0° C to 50° C
Rating in kVA	3 kVA to 2000 kVA
Design Standards	As per IS:9815

• Specifications are subject to change without notice, on account of development in product design.

## **PRODUCT RANGE**

- ♦ SERVO VOLTAGE STABILISERS
- **♦ STATIC VOLTAGE STABILISERS**
- **♦ ULTRA ISOLATION TRANSFORMERS**
- **♦ K-RATED TRANSFORMERS**
- **♦ CONSTANT VOLTAGE TRANSFORMERS**
- ♦ UN-INTERRUPTED POWER SUPPLIES
- ♦ SURGE PROTECTION DEVICES
- ♦ EMI/RFI FILTERS

#### **NOTE:**

For stabilisers without output Contactor, signals will be provided to trip an external breaker.

#### **Custom Designed:**

- 150 kVA and above
- Wide / Short input voltage range
- Specific output voltage
- Outdoor Models



ounded in 2001 in Chennai, India, VERTEX is involved in manufacturing Electrical Power Protection Systems. Over the years, the company has earned a reputation for excellence and professionalism for continuously striving to meet and even exceed the standards thereby setting the environment for a sustainable business relationship with its clients.

Today we are one of the leading manufacturers of Servo Voltage Stabilisers and Isolation Transformers in India with **over 1 lakh installations.** 

**VERTEX** employs technically skilled, qualified and highly dedicated personnel working cohesively to promote value-added solutions at competitive pricing to suit distinct clientele needs.

#### Some of our valued Customers

**Textiles:** Veejay Lakshmi, TVS (textile division), LMW, Lakshmi Mills, Premier Mills, KPR Group, Loyal textiles, SCM textiles, GTN Group, GMR Spintex, Bharat Silks, Raymond Mills, Ambika Mills, Paramount Group, Indian Rayon, Gopalakrishna Mills, Mangrool Mills, Mount Exports, etc

Petroleum: HPCL, Petro Araldite.

**Cellular/Telecom**: IDEA Cellular, Reliance.

**Educational /Research Institute:** Indian Institute of Science **(IISC),** Sri Venkateshwara University, SKBR Group, and Good Shepherd School of Education, etc

**Government & Public Sector:** ETDC, South Central Railways, LIC of India, State bank Of India, Bharat Electronics (BEL), BHEL, HIAL, NAL, CWSSES, CONCOR, CSIR-SERC, IRCTC, IGCAR, etc

**Pharma /Analytical:** Dr.Reddy's Lab, Nicholas Piramal, NATCO Pharma, VIRCHOW Labs, AIMIL, Helpanel System, etc

**Engineering:** Veejay Lakshmi Engineering Pvt Ltd, Pride Machine Tools, Rane Madras group, Madras Engineering Industries P. Ltd., Alfa Laval, Yuken India, Deccan Hydraulics, Rolastar Group, Maini Precision, Ashok Leyland, Sundaram Clayton, Associated commercial, Nash Industries, Solidus Hitech, Indo Shell Cast, Virpan Precision, Kirby Building systems Pvt Ltd, Fenesta Building system, Gokul Industries, Dream Valley Castle Services Pvt Ltd, Myung Sung India Precision Pvt Ltd, SL Lumax Ltd., etc

**Others:** ITC Bhadrachalam Paper & board Ltd., The Andhra Sugars Ltd., L & T - ECC Div, ECLAT Auto pack, Ascents Circuits, AT & S (India), Reliance Fresh, India Cements, Ingersoll-Rand India, TUV Suddeutschland India, SKOL Breweries Ltd, Mission Hospital, Kotak Mahindra Bank Ltd, Hindustan Liver Ltd., Whirl pool of India Ltd., Vieston Automotive, Standard Chartered bank, Aachi Masala Pvt Ltd., Uniply Industries, Thirumala Milk products Pvt Ltd, APC Consultants Pvt Ltd, Sidra Foot Wear Pvt Ltd, Imaan Shoes Pvt Ltd., Harshal Printing, Wingtech Mobile, Amararaja Batteries, etc.

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