



## VERTEX SERVO STABILISER

THREE PHASE – OILCOOLED / 3 kVA – 1000 kVA

### **SALIENT FEATURES:**

- **Smart Servo – not just a stabiliser**
- Provides information for load & energy study
  - Voltage: I/P & O/P (L-L & L-N )
  - Current: O/P (R/Y/B)
  - Frequency
  - kVA (per phase), Avg kVA, KW (per phase), Avg KW
  - pf (per phase), Avg pf, kWh (per phase), Total kWh
  - I<sub>max</sub>, V<sub>max</sub> & V<sub>min</sub>
- User adjustable setting of O/P Voltage, High/Low cut-off limits & Manual / Auto Restart time delay, with great accuracy
- Event Recorder (Trip Status – Details of Voltage & Amps with time)

**Note: Smart Servo Control System available only for higher ratings on request**

**Vertex Power Solutions Pvt. Ltd.,** is managed by a team of Engineers with over 25 years of experience in the field of Power conditioning Equipment. The Products are manufactured at Chennai, under the brand name of VERTEX.

VERTEX, through its quality products & service, has made its presence felt in various segments like Textile, Telecom, Engineering & Automobile, Printing, Packaging, Medical, Analytical, Audio/Video, IT, etc.

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 equipments from High/Low Voltages thus cutting on the maintenance cost.

## TECHNICAL SPECIFICATIONS – VERTEX SERVO STABILISER

Type of Stabiliser	Three Phase Stabiliser
Type of Application	Indoor Application
Type of Design	Servo Stabiliser with O/P sensing feed-back system
Type Of Cooling	Oilcooled
Servo Motor Type	Opto Coupler based Triac drive
Servo Motor Drive	A.C. Synchronous Stepper Motor
Input Voltage Range	360 V - 460 V / 340 V – 460 V / 310 V – 480 V
Input Frequency	47 - 53 Hz
Output Voltage	415 V ; Adjustable 380 V OR 400 V (L - L)
Output Voltage Regulation	± 1 %
Control Design	Microcontroller (Digital Signal Processor) based system
Voltage Sensing & Correction	True RMS Sensing & Correction
Waveform Distortion	NIL (Output Waveform same as Input Waveform)
Effect of Load PF	NIL (Effect of Load PF on Output Voltage is Nil)
Correction speed	60 V/ Sec
Efficiency	≥ 98%
Under / Over Voltage Cut Off	Upper Limit +5%, Lower Limit -10% of O/P nominal Voltage
Short Circuit Protection	HRC Fuse at Input (OR) MCB (OR) MCCB
Over Load Protection	Operative above 110% of rated output current
Single Phasing Prevention	Built-in
Phase Reversal Protection	Built-in
Reset	Auto restart / Manual restart (User Settable)
Auto / Manual for Operation	Increase / Decrease (Thru key combination on front panel)
Display Type	2 x 16 Character LCD with Back-light
Parameters Displayed	I/P & O/P Voltage L-L, L-N, Hz, Current R-Y-B (all Phases)
Front Panel Indications	LED Indication for – Input Present, Output Normal
Front Panel User Interface	MENU, UP/DOWN KEY, ENTER/SET KEY
Event Recorder	Provided for fault detection
Input / Output Connection	7 Way terminal Connector (With Nut Bolt arrangement)
Emergency Manual Bypass	Built-in upto 50 kVA (Above 50 kVA – Optional)
Output Relay / Contactor	Built-in Upto 100 kVA (Above 100 kVA – Optional)
Transient Protection	MOV with RC Filter on Request
EMI / RFI Filter	Optional
Ambient Temperature	0 to 50° C
Standard kVA Ratings	1 kVA to 1000 kVA
Design Standards	As per IS:9815

Custom Designed: Stabilizers of more than 1000 kVA are also available with wider / shorter input voltage range & also with special output voltage, as per customer requirements.

### **Applications:**

Textile, Garment, Packaging, Medical, UPS (bypass), Printing, CNC machines, Centralized AC, Residential, Food processing, Offices/Commercial Complexes etc.

## **JS Power Services**

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