



## 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

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

### **Head Office & Works:**

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