



## STEADY VOLT

### Servo Voltage Stabilizers



#### Are machine breakdowns slowing you down?

Voltage variations are an increasingly common and dangerous nuisance that can damage electronic components like power supplies, drives, PLCs, controllers etc. Their effects are widely felt in CNC, Printing, Textiles machines as well as Laboratory, Data processing, Medical & Telecommunication equipments. Frequent breakdowns of such machines are costly to repair, but the unnecessary downtime frequently interrupting operations also causes an easily preventable loss of revenue.

#### Total control of Power Quality and Voltage fluctuations

Steady Volt by Unity Controls is a state of the art Voltage Stabilizer designed to protect such machines and equipment against voltage variations. As per your requirement, Steady Volt provides controlled output voltage against a wide range of voltage fluctuations.

#### An investment in Steady Volt pays off twice as fast

With best in class response time and correction rates, Steady Volt offers improved power quality and greater energy efficiency, thereby saving the cost of breakdowns and energy utilization. Apart from protecting your machines and equipment from damage, Steady Volt also saves energy during continuous operations.

#### High Quality, High Performance, High Reliability

Steady Volt is manufactured in our ISO 9001 certified factory using the best quality of materials such as prime grade magnetic and electrical conductors, electronics and CNC fabricated sturdy enclosures. Every Steady Volt unit passes through a stringent quality assessment at various stages of manufacturing from raw material to finished goods and final testing to ensure high reliability & consistent performance.

#### What makes Unity's Steady Volt the best?

- ✓ Intelligent Microprocessor based system\*
- ✓ Digital interface with large LCD display and keypad\*
- ✓ Auto re-start, Adjustable output voltage, Trip bypass, Fault list\*
- ✓ No Hunting, Oscillation and Noise generation
- ✓ Innovative transformer design to minimize power loss
- ✓ Constant output voltage across a wide input voltage range
- ✓ Single Phasing Prevention, Surge Suppressor and EMI/RFI filter

\*Available in new digital models

#### Key Features

**Instant Response & Fast Corrections:** Variable speed Servo motor and proportional control circuits provide a response time of 10msec to correct voltage fluctuations without noise or oscillations in output.

**Lower Running Cost:** Due to high operation efficiency of better than 98% as compared to 95% from other brands. Fig. A indicated savings at different KVA ratings, with our equipment.

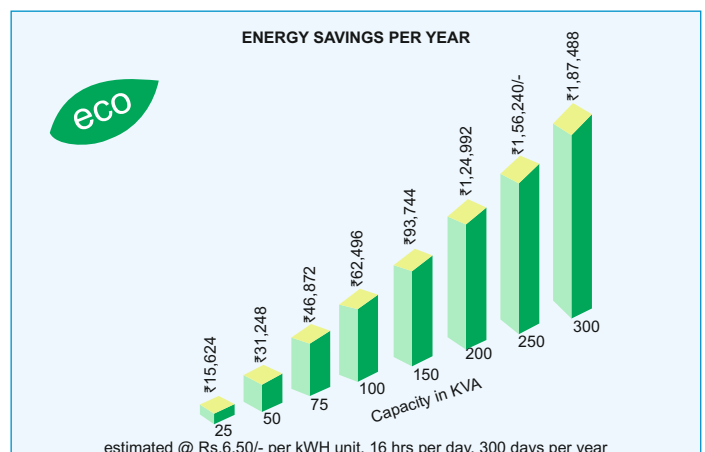


Fig. A



**Digital Metering System:** Data logger with LCD/LED display screen provides detailed information about various electrical parameters to help monitor power quality.

**Universal Fit:** Designed to work on unbalanced line and load conditions when each phase is individually controlled with separate variable speed motors and electronic controls.

**D.G. Compatibility:** Special RMS sensing circuit eliminates drift in output voltage, current and frequency, even with distorted waveform to avoid unnecessary tripping.

**Better Components:** Only components conforming to CE/IS/BS/VDU standards are used after being rigorously tested for capacity to produce high performance.

**Fast Payback:** Reduced power loss and resultant lower running cost doubles the cost savings and ensures quick recovery of your investment.

#### Low Maintenance and Trouble-Free Operation

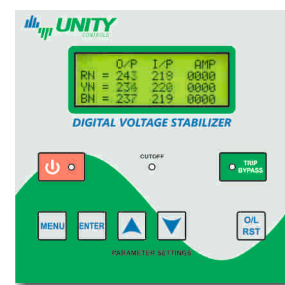
- Automatic machine-wound variable auto transformers with imported carbon brush and silver-plated contacts minimizes the carbon deposit for smoother commutation as seen in Fig. B
- High grade C.R.G.O Lamination and electrolytic grade copper wires of 99.99% purity for variable transformers
- All equipment undergo accelerated life test and each component is individually tested to meet the relevant quality standards
- High torque, low inertia servo motor ensures critically damped response under all types of load and supply conditions
- Higher overload capabilities to withstand high starting or regenerative currents, typical in CNC machines
- Plug-in type PCBs and SMT components, manufactured on automatic machines, reduce downtime and ensure high reliability



**Oil Cooled Servo Voltage Stabilizer**



Fig. B



**Digital Voltage Stabilizer**

Technical Specifications		Supply System	Input Voltage Range*		Ratings
Output voltage	230V AC for 1 phase 415V AC for 3 phase 380V AC for 3 phase	Single phase	170-270V	<i>Air cooled</i>	5, 10,12.5, 16, 20, 25 KVA
Regulation	± 1% or 0.5%	Three phase	340-480V	<i>Air cooled</i>	10, 15, 20, 25, 30, 40, 50, 60, 75, 100, 125, 150, 200, 250 KVA
Frequency	47-53 Hz			<i>Oil cooled</i>	75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 500, 600, 750, 800, 1000, 1250, 1500, 2000 KVA
Efficiency	Better than 98%	Three phase	300-480V		
Waveform distortion	Nil			<i>Oil cooled</i>	60, 75,100, 125, 150, 200, 250, 300, 400, 500, 1000, 1500, 2000 KVA
Effect of load power	Nil	Three phase	300-480V		
Digital Metering	Voltage, Current, Frequency			<i>Oil cooled</i>	60, 75,100, 125, 150, 200, 250, 300, 400, 500, 1000, 1500, 2000 KVA
Protections	Under & Over Voltage Overload & Short Circuit Single phasing / Phase reversal* Neutral loss* Surge suppression*	Three phase	300-480V		
Cooling	Air cooled Oil cooled (transformer grade oil of IS-335)			<i>Oil cooled</i>	60, 75,100, 125, 150, 200, 250, 300, 400, 500, 1000, 1500, 2000 KVA
Ambient	0-45°C, RH upto 90%	Three phase	300-480V		
Enclosure	IP 21			<i>Oil cooled</i>	60, 75,100, 125, 150, 200, 250, 300, 400, 500, 1000, 1500, 2000 KVA
*Optional		*Non standard voltages are also available.			

\*Optional

\*Non standard voltages are also available.



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Due to continuous product improvements, technical specifications are subject to change

