

technohertz

An ISO 9001:2015 Certified Company

10 MILLI SECOND SENSING ADVANTAGE



Secure your investment with
Technohertz Static Precision Voltage Regulator (SPVR)

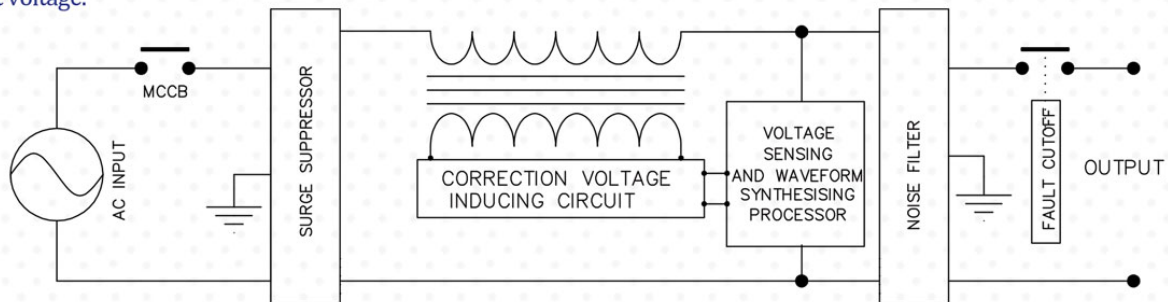
For 24 x 7 / 365 Days Operation:

The answer for the best performance of your
Critical Machinery & Equipment

The EBs are unable to keep pace with the power supply for the constantly growing demand by the industrial sectors and housing sectors. Added to this, periodic variation in demand like peaking and sags gives rise to erratic voltage variations over the day. The neighbourhood of the industrial belt is subjected to violent Voltage fluctuations like Sags (Brown outs) when a big machine is switched ON, or a Surge when a big motor is switched OFF, which a servo stabilizer cannot correct. The causality of these highly fluctuating and noise ridden power supply are the expensive machines leading to huge loss of productivity added to the cost of repairs.

Why Technohertz Static Precision Voltage Regulator?

Technohertz Static Precision Voltage Regulator is the state of the art product making use of the advantage of the latest high frequency device: Insulated Gate Bi-polar Transistor (IGBT) . SPVR's unique and high speed sensing circuit senses the voltage every 10 millisecond and corrects in the next 10 millisecond. Effectively the SPVR corrects the voltage within a cycle. This ensures almost a rock steady output voltage.



The salient features of the SPVR technology are -

- ✦ Its ability to correct sags and surges
- ✦ It does not introduce any noise
- ✦ Using high efficiency device like IGBT reduces loss and pays back faster
- ✦ The need for periodic service is eliminated and its rugged design ensures very low down time
- ✦ SPVR technology does not expose the sensitive load to the raw mains

The difference between other stabilizer technology and Technohertz Static Precision Voltage Regulator (SPVR) is shown below.

Comparison of various types of voltage regulating devices

Features	Servo Control Voltage Stabilizer	CVT Ferro Resonant Transformer	Online UPS	Automatic TAP Changer	SPVR IGBT based Solid State PWM Technology
Step less Correction	Yes	Yes	Yes	No	Yes
Correction Speed	Slow	Fast	Fast	Slow	Fast
Response to sag & swells	Does Not Respond	Responds	Responds	Does Not Respond	Responds, Corrects sags & swells
Surge and spike suppression	Do Not Suppress	Do Not Suppress	Suppresses	Do Not Suppress	In-built Suppressor
Load regulation	Good	Bad	Good	Good	Very Good
Overload capacity	Very Good	Bad	Moderate	Good	Very Good
Moving parts	Yes	No	No	Yes	No
Maintenance requirement	Maintenance is needed	Capacitor requires replacement	Battery replacement is expensive & needs replacement once in few years	Relays needs replacement	No maintenance required
Energy efficiency	Efficient	Very inefficient	Not Very efficient	Efficient	Very efficient
Output overshoot	Yes	Yes	No	Yes	No
Soft start	No soft start	No soft start	Soft start available	No soft start	In-built Soft start
Cost of ownership	Moderate. Frequent maintenance required	Inefficient device. High power consumption	High. Because of batteries that require maintenance	Moderate.	Low

Added Features:

Technohertz SPVR works much cooler and with greater efficiency. Ergonomically placed digital meter on the front of the regulator displays the input & output parameters with great accuracy.

Available Models:

Single Phase Static Precision Voltage Regulator (SPVR) :

Parameter	Models / Features	Normal Range	Wide Range
Electrical	Boost Percentage	+/- 20%	+/- 26%
	Available Rating in kVA	NA	2, 3, 5, 6, 7.5, 10, & 15 kVA
	Technology	IGBT based high frequency PWM voltage corrector	
Input	Input voltage	NA	170 VAC to 270 VAC
	Cut-off Voltage setting	NA	5% to 15% on lower side and 5% to 12.5% on the higher side
	Operating frequency	NA	47 to 63 Hz
Output		NA	230 VAC +/-1% Can also be set to 220 VAC to 240 VAC
		NA	Can be set to any accuracy > 1%
Annunciation		NA	0.39" 6 digit numeric display
Operating Ambient		NA	50°C max
Cooling		NA	Forced air
Protection		NA	Overload and Short circuit protected.
Input working range for cut-off set at -10 % and +7.5% default factory setting	Low Side		153 VAC
	High Side		290 VAC

Three Phase Static Precision Voltage Regulator (SPVR) :

Parameter	Models / Features	Short Range	Normal Range	Wide Range
Electrical	Boost Percentage	+/- 13%	+/- 20%	+/- 26%
	Available Rating in kVA	15, 30, 45, 60, 75, 100 & 125kVA	15, 22.5, 30, 45 & 60 kVA	15, 22.5, 30, 45 & 60 kVA
	Technology	IGBT based high frequency PWM voltage corrector		
Input	Input voltage	348 VAC to 452 VAC	320 VAC to 480 VAC	290 VAC to 480 VAC
	Cut-off Voltage setting	5% to 15% on lower side and 5% to 12.5% on the higher side		
	Operating frequency	47 to 63 Hz		
Output		400 VAC +/-1%. Can also be set at 380 VAC to 415 VAC		
		Can be set to any accuracy > 1%		
Annunciation		0.39" 6 digit numeric display		
Operating Ambient		50°C max		
Cooling		Forced air		
Protection		Overload and Short circuit protected.		
Input working range for cut-off set at -10 % and +7.5% default factory setting	Low Side	313 VAC	288 VAC	266 VAC
	High Side	485 VAC	502 VAC	502 VAC

Vulnerable loads which require special protection: Protection by Technohertz SPVR

- ✦ CNC Machines
- ✦ Robots
- ✦ Radar Installations
- ✦ Automobile manufacturers and its ancillary industries
- ✦ R & D Laboratories
- ✦ Printing and packaging Machinery
- ✦ Textile machineries
- ✦ Injection moulding machines in the plastic industries
- ✦ Oil refineries
- ✦ In the wheel house of the ship where all its navigation and control equipment are fitted
- ✦ Any other Industry which use electronics controls
- ✦ Building management
- ✦ Medical equipment – Diagnostic machine like MRI, CT scans etc.
- ✦ Wood processing Industries
- ✦ Pharma Industries
- ✦ Cement Industry

Protect your expensive machinery and equipment from these aberrations by installing Technohertz Static Precision Voltage Regulator (SPVR).

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