



An ISO 9001 - 2015 Company

IGBT STATIC VOLTAGE STABILIZER



Three Phase Model

Three Phase Model : 6 KVA - 500 KVA

Single Phase Model : 3 KVA - 50 KVA

TECHNICAL SPECIFICATIONS		
S.No.	Item	Description
1.	Regulator Technology	High frequency 20k Hz IGBT driven voltage regulation converter. Pulse width modulated (PWM) controlled direct AC to AC 32 Bit Digital converter topology. 7" Coloured Touch Interface (Optional) Synchronised operation of 3 Phase Converters Closed Loop Control
2.	Input Nominal Voltage	230 volts AC, 1-phase, 2 wire, 50Hz 400 volts AC, 3-phase, 4 wire, 50Hz
3.	Input Nominal Operating Voltage Range	1. 195V-265V/200V-260V/170V-300V AC, 1-phase, 2 wire, 50 Hz 2. 340V-460V/350V-450V/300V-500V, AC, 3-phase, 4 wire, 50Hz (Other ranges available on specific order)
4.	Output Nominal Voltage	230/400V +/-0.5% AC, Single /Three phase
5.	Input Nominal Frequency	50Hz +/- 5%
6.	Reaction Time	< 100 us
7.	Efficiency	Better than 98.5%
8.	Protections	Over Current Protection Output Under/Over Voltage Protection Semiconductor Fuses Soft Start Facility (Stabilized Output Voltage, on Mains restoration) Type 2 Surge Suppressors Output Contactor/MCCB (Optional) Input MCCB/MCB (Optional)
9.	Metering	Input /Output Voltage Input /Output Current Frequency
10.	MMI (optional)	7" Coloured Interface (Optional) Input/Output Voltages Input /Output Current Current/Voltage Waveforms Operator Activity Log Stack Temperature Converter Current
11.	Environment	Indoor IP 42 Ambient Temperature - Upto 50 degree Relative Humidity : 95% (Non Condensing)
12.	Available Ratings	3 Phase : 6 KVA - 500 KVA 1 Phase : 2 KVA - 50 KVA Note : Customised Ratings can be supplied

Other Products

Servo Voltage Stabilizers/Static Stabilizers/Isolation Transformers/Ultra Isolation Transformers / AVR /Step-Up & Step-Down Transformers /AMF Panels/Auto Variable Transformers/On-Line UPS Systems.
Automatic Power Factor corrector Panels (APFC)

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Introduction

Selvon IGBT type Static Stabilizers are most suitable for fast, step-less and accurate Voltage regulation. These systems are built on state of the art technology with dual voltage & current tracking with robust algorithm to ensure that sensitive loads are effectively protected from grid voltage variations. The basic topology uses a buck-boost transformer with higher primary secondary ratio for voltage corrections upto +/- 25%. The Voltage correction is achieved electronically without any step changes in voltage during regulation. The system is microprocessor based & works on a feedback & control system.

Need of IGBT Static Stabilizers :

1. Increased usage of precision equipments like PLC, CNC machines, AC/Dc drives, IT infrastructure etc. These all are very sensitive to input Voltage variations.
2. Expensive down times result in loss of production.
3. Voltage fluctuations are affecting the quality of the products, resulting in higher rejection levels.
4. Existing constant voltage solutions have very slow response time.
5. Moving parts of the voltage corrector affect the load by generating micro sparks & line noises.
6. Wear & tear of the moving parts, results in high maintenance cost.

Advantages of IGBT Static Stabilizers :

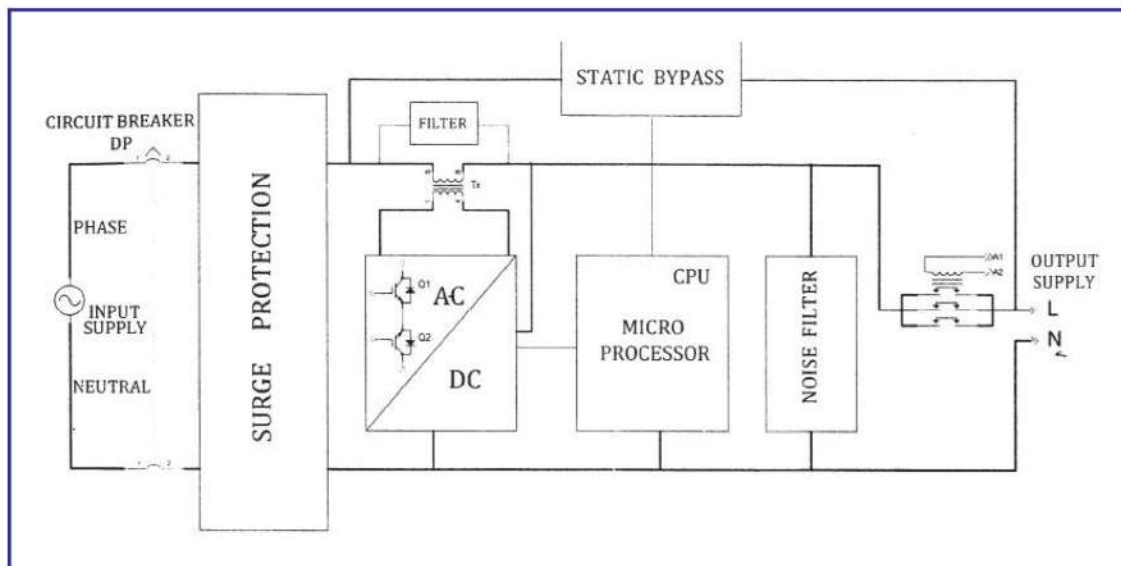
1. Voltage correction through IGBTs with a response time of 100v/msec.
2. Fast and accurate continuous correction without overshooting.
3. Isolation from Line disturbances & fluctuations.
4. No moving parts & stepless correction.
5. Efficient operation of equipments with increased & qualitative productivity & reduced rejections.
6. Compact in size
7. Auto Bypass Facility of the system.
8. Output short circuit protection. The system detects abnormally heavy current flow from input & indicates occurrence of short circuit. Instant tripping will isolate the load & simultaneously switch off the IGBT converter to provide protection against damages.



Field of Application

- Medical Equipments, X-Ray Machines, Centrifuge, MRI/CT Scan etc.
- CNC, Laser & Moulding Machines etc.
- Printing Machines, Colour Processors. Packaging Industries etc.
- Textile & Weaving Industries, Central Air Conditioning, Chemical Industries, Processing Plants etc.
- Commercial Buildings & Complexes.
- Oil & Gas - Petrol Pumps using dispensing machines centrally connected through SCADA
- Telecommunications, Radars etc.
- Information Technology & Call Centres,
- Defence Installations, IPTs & HPTs
- Lifts & Escalators.
- Research & Development

Schematic - IGBT Static Stabilizer



Industry



Telecommunications



Defence



Government



Medical



Food