EDIT
ELECTRONIC

Innovative Power Solutions & Voltage Stabilizers

IMP Catalog

ENG

IMP
Static Voltage Stabilizer

Key Features
- Automatic AC Voltage Stabilizer
- Maintenance-free Thyristor Technology
- 1kVA – 3.200kVA Power range
- Production at Single Phase, Two Phase, Three Phase
- Production at all industrial voltages
- Low Voltage Correction up to 60%
- High Voltage Correction up to 45%
- Response time: 20 msec
- Correction Time: 100 msec - 200 msec
- 100% Unbalanced Voltage and Load Capacity
- Continuous protection against voltage fluctations
- Independent voltage management on each phase
- Efficiency >97%
- Standard Operator Panel with 4x20 LCD display
- Electronic Overload, Over Temperature Protection
- Low Voltage / High Voltage Protection
- Suitable design for industrial environment
- TS EN ISO 9001: 2015 Quality Certified

Optional Features
- 7” Touchscreen Operator Panel
- Ethernet Web Server and Mod-bus RTU
- Galvanic Isolation Transformer
- Surge Arrester
- Automatic By-Pass Unit
- Maintenance By-Pass Switch

What is the IMP Voltage Stabilizer?

IMP Voltage Stabilizer is an Alternative Current (AC) voltage regulation and protection device which provides continuous, safe and stable voltage to sensitive industrial machines and equipments.

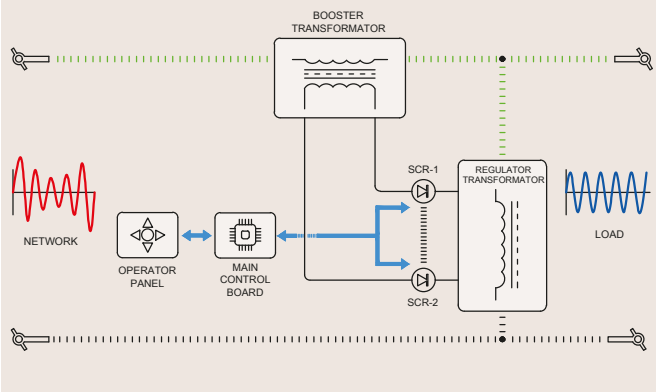
It adjusts and keeps constant unstable network voltage to the most proper voltage value for sensitive electronic devices. It ensures that critical industrial machines and equipments operate at the highest performance.

How Does It Work?

IMP Voltage Stabilizers work on the principle of injecting voltage to the load supply voltage by the help of transformer connected in series between the network and load.

High-speed and sensitive measuring circuits of IMP measure voltage drops and fluctuations.

Microprocessor-based management board calculates the voltage value to be increased or decreased and performs the voltage injection with Thyristor switches.



The measuring time of low voltage and high voltage ***20 milliseconds,***

Voltage Correction Time is ***100-200 milliseconds.***

All operations are done automatically and without any operator assistance.

Reliable Voltage Correction Solutions For Special Needs With The Latest Technology

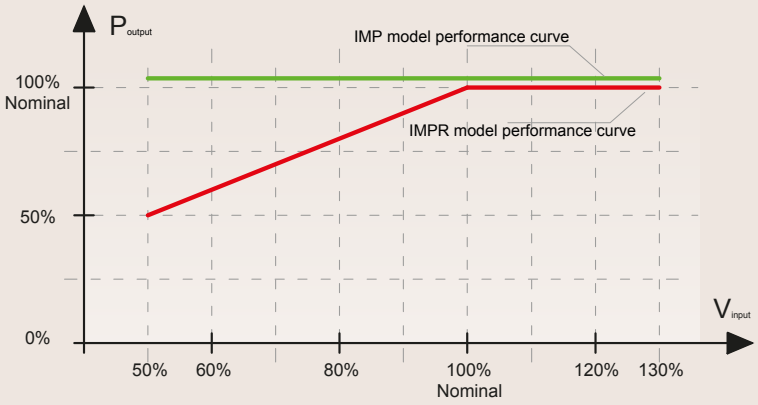
Design Features

IMP Voltage Stabilizers are at customizable structure for customer demands. IMP Voltage Stabilizers are produced on order as “Tailor Made” by adding options which is suitable for network voltage specifications, installation specifications, characteristics of loads and special demands of customer.

There are performance specifications and protection functions that can be selected while keeping same the basic production technology.

Operation Performance at Low Voltage

IMP model Voltage Stabilizers are designed to operate continuously at full load at the lowest input voltage.



Model **IMP**

FULL LOAD at Low Voltage

Transformers
Thyristors
Fuses
at Nominal Capacity

Model **IMP-R**

FULL LOAD at Nominal Voltage

Transformers
Thyristors
Fuses
at Nominal Capacity

Input fuse, power transformers and thyristors of IMP Voltage Stabilizers are selected with high capacity for full load performance at low voltage.

IMP-R Model Voltage Stabilizers are designed for applications that don’t need full load performance at low voltage. IMP-R Model Voltage Stabilizers can operate at full load at the rated input voltage, when the input voltage drops, output power that can support drops at the same rate.

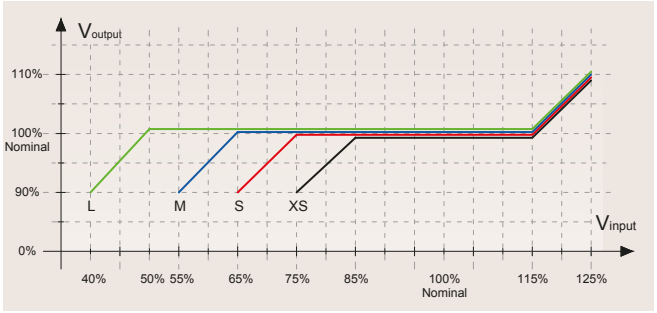
Input fuse, Power transformers and Thyristors of IMP-R Model Voltage Stabilizers are selected to operate at full load at nominal voltage.

Please contact with sales representative for special production requests and the right solutions.

Input Voltage Range – Output Voltage Tolerance

The input voltage range of IMP Voltage Stabilizers is determined at the order stage and can not be changed later. There are 4 different models as standard.

The below diagram shows the voltage regulation performance of each model.



The output voltage tolerances of IMP Voltage Stabilizers can be produced with +/-1% , +/-2% ,+/-3% options. Output voltage tolerance is related to the used thyristor configuration and affects the manufacturing cost.

Standard type 3 phase IMP Voltage Stabilizers can operate in 3 phase + Neutral (4 wire) installations. Neutral connection is required for safe operation. However, for special needs, it can be produced in accordance with 3-Phase 3-Wired Delta connection installations also.

Full Protection with Fast and Durable Thyristor Technology

In IMP Voltage Stabilizers, voltage increasing and voltage decreasing are done using THYRISTOR switches. There are no moving mechanical parts such as motors or brushes inside the device and no maintenance is required.

Voltage regulation is done from AC to AC directly. It doesn't create harmonic distortion on network or load voltage.

IMP Voltage Stabilizers are equipped with protection systems of Low Voltage, High Voltage, Overload and Over Temperature for safe operation of critical industrial devices.

Production in All Industrial Voltages

IMP Voltage Stabilizer is produced in all industrial input voltages.

3 Phase + Neutral connection , 208VAC, 220VAC, 380VAC, 400VAC, 415VAC, 480VAC, 600VAC

The nominal operating voltage of the IMP Voltage Stabilizer is determined at the order . It cannot be changed later.

Please contact with sales representative for special production requests and the right solutions.

IMP-3P2000

IMP-3P400

IMP-3P30

IMP-1P10

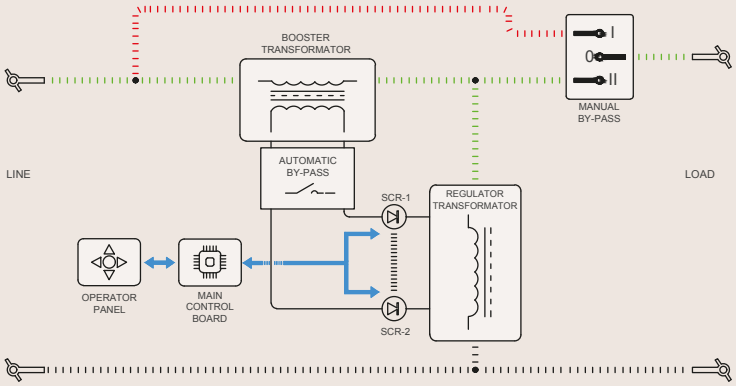
In case of Overload or Failure, it continues to work with Automatic By-Pass. There is Maintenance By-Pass Switch for operator intervention

Built-in Automatic By-pass (Optional)

An internal bypass system can be added to IMP voltage stabilizers, which ensures uninterrupted transfer of loads to the network in case of over-load or internal failure. In case of overload or failure, the circuit of internal bypass short-circuits the secondary side of booster transformer, provides a direct connection from the network to output. (This OPTIONAL specification is only available on some models.)

Maintenance By-Pass Switch (optional)

A Maintenance By-Pass switch can be added to the IMP voltage stabilizers, which ensures that the loads are transferred to the grid in case of maintenance or failure. Maintenance By-Pass switch is an I-0-II position changeover switch and is manually controlled. During the Maintenance By-Pass operation, the power to the loads is cut for a short time.



These features will increase your performance;

Galvanic Isolation Transformer

Some models of IMP voltage stabilizers can be produced with isolation transformers. An isola-tion transformer can be placed at the input or output of the stabilizer in accordance with the customer's request. Voltage changing or vector changing can be done with the isolation trans-former.

Voltage Switching Option

Input and output voltages can be different in IMP Voltage stabilizers. The output voltage can be adjusted to a different industrial voltage in accordance with the project requirement. (Example: Input Voltage can be 400VAC 3P+N, Output voltage: 220VAC 3P+N)

Please contact with sales representative for details.

IP44, IP54, IP65 Cabinet Option

There is IP44, IP54, IP65 cabinet option for outdoor applications. In special cabinets, full protection against corrosion is provided with zinc coating and prime paint applications before painting. There are also special cooling options for outdoor applications.

Surge Arrester-High Voltage Protection

Surge arresters can be placed at the inputs and outputs of IMP voltage stabilizers for protection against high voltage and lightning strikes. Please contact with your sales representative for Class-I or Class-II surge arrester options and all other requests.

Advantages

- ✓ It can be produced at all powers.
- ✓ It can be produced as 3 Phase, 2 Phase and 1 Phase
- ✓ It can be customized according to customer demands.
- ✓ Cabin design, dimensions and electrical connection features can be re-designed according to the project needs.
- ✓ It is small in size and compact structure.
- ✓ It can be produced with high protection features up to IP-65 for outdoor applications.

Applications

- ✓ Industrial Facilities
- ✓ Data Centers
- ✓ Medical Equipments
- ✓ Computer and Network systems
- ✓ TV and Radio Stations
- ✓ Laboratory and Test Equipment
- ✓ Production Lines
- ✓ Banks and Financial Institutions
- ✓ Automative, Iron and Steel, Mining

It is the best solution for all commercial businesses and home users affected by voltage fluctuations.

Remote Monitoring and Management

Ethernet Web Server (Optional):

It is designed for remote monitoring via network. The whole system can be monitored and managed with an Ethernet cable. The remote management interface is designed as browser-based. It can be connected from any computer with a web browser. No additional software is required.

With remote management interface; all parameters of all IMP Voltage Stabilizers can be monitored and some parameters can be changed.

There is two-step password protection for accessing the remote monitoring interface.

MOD-BUS RTU (Optional):

It is designed for monitoring and management via Mod-Bus. The whole system can be monitored and managed by connecting with a cable. All parameters of IMP Voltage Stabilizers can be monitored and some parameters can be changed with Mod-Bus protocol..

IMP Voltage Stabilizers have 2 different Operator Panel Options

IMP Voltage Stabilizers have an ergonomic and user-friendly Operator Panel designed for management and monitoring. All operating parameters of the Voltage Stabilizer can be monitored from this panel and some operating parameters can be adjusted. There is two-step password protection for parameter changing.

Monitorable parameters: Input Voltages, Output Voltages, Load Percentages, Operating Frequency, Date-Time, Device Status Information, Fault and Error Codes.

Changeable Parameters: Output Voltage Set Value (limited), Date-Time Information.

1. LCD Display Operator Panel (Standard)

- **4 lines 20 characters LCD display**
- **Mimic Diagram**
- **Light indicators**
- **5 pcs selection and application buttons**
- **Three Language Options (On Order)**

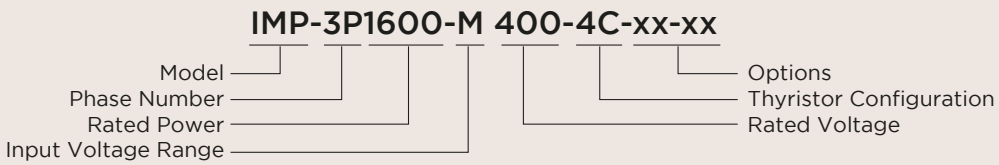
2. Touchscreen Operator Panel (Optional)

- **7” inch Color Display**
- **Resistive Feature**
- **Backlight**
- **Three Language Options (On Order)**
- **Simple and Understandable Menu**

Technical specifications

IMP Static Voltage Stabilizer				
General Features				
Power (kVA)	In the power range of 1KVA - 3.200KVA			
Technology	Thyristor Technology, High-speed Voltage Regulation, Maintenance-free Design			
Thyristor Configuration	6 Thyristor	8 Thyristor	10 Thyristor	
Input				
Rated Input Voltage	3 Phase Model: 400 VAC 3Phase+Neutral+Ground (Different voltages are optional)		1 Phase Model: 230VAC 1Phase+Neutral+Ground	
Voltage Tolerance	XS model -%15,+%15	S model -%25,+%15	M model -%35 , +%15	L model -%50 , +%15
Frequency	50 Hz. +/-%5 (60 Hz. Optional)			
Output				
Rated Output Voltage	3 Phase Model: 400 VAC 3Phase+Neutral+Ground (Different voltages are optional)		1 Phase Model: 230VAC 1Phase+Neutral+Ground	
Voltage Tolerance	Between +/-1% and +/-5% (optional)			
Frequency	50 Hz. +/-%5			
Overload Capacity	125% 1 minute, 150% 10 seconds, 151% and above 0.2 seconds			
Response Time	20 msec			
Correction Time	100 msec - 200 msec			
Efficiency	> 97% typical			
Management Monitoring and Communication Interfaces				
Operator panel with LCD Display	4x20 LCD display and mimic diagram Input voltage, Output voltage, Load percentage, Frequency, Status and Fault information, Parameter settings			
Touchscreen Operator Panel (optional)	7" Color Touchscreen Input voltage, Output voltage, Load percentage, Frequency, Status and Fault information, Parameter settings			
Remote Management Interface (optional)	Browser-based remote management with Ethernet connection MOD-BUS RTU with RS485 connection			
Protection Functions				
Voltage Protection	Electronic protection for Low Voltage and High Voltage			
Current Protection	Input Circuit Breaker (Output Circuit Breaker optional)			
Overload Protection	1 minute at 125% overload, 10 seconds at 150% overload, at >151% overload the power to the load is cut off after 0.2 seconds.			
Over Temperature Protection	Fan cooling works at 50°C. At 80°C, the power to the load is cut off.			
Surge Arrester	Class-I or Class-II (optional)			
Environmental Conditions				
Operating temperature	-10 °C ~ +40 °C			
Altitude Operating Height	1.500m			
Humidity	90% none condensed			
Acoustic Noise	< 55dB (at 1m distance and doors closed)			
Cabinet Specifications				
Type – Protection Class	Free Standing Modular Cabinet, IP21 Indoor type (IP54 and higher protection class, Outdoor Type Cabinets are optional)			
Paint – Color	Epoxy-Polyester Powder Paint - RAL 7035			
Cooling	Air cooling with thermostat controlled fan.			

ORDER CODE



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You may visit our Website for more detailed information and solutions.