

## AC Automatic Voltage Stabilisers & Regulators

Oil Immersed Magnetic Induction Design

**IVSI SERIES**  
**THREE PHASE**  
**500KVA ~ 2500KVA**

**INDEPENDENT PHASE CONTROL**  
**MAINTENANCE FREE BRUSHLESS TECHNOLOGY**

AC mains voltage fluctuations can cause equipment to behave erratically and malfunction. Some systems may even breakdown due to these fluctuations. Failure to ensure the incoming mains voltage remains stable can often result in costly equipment repairs.

**Ashley-Edison, IVSI Series** Voltage Stabiliser / Regulator utilizes the latest in Oil Immersed Magnetic Induction technology to ensure the mains voltage remains constant at all times. As a Magnetic Induction based solution, IVSI stabilisers utilise a simple, yet highly reliable, rotor and stator design principle to increase or reduce the magnitude of the voltage in a series transformer winding, thereby delivering and maintaining a constant output voltage. The arrangement is similar to a motor, except that the rotor does not rotate continuously. Its maximum rotation is only 130 degrees. The magnetic coupling between the rotor (the shunt winding) and stator (series winding) will cause the magnitude of the voltage in the series winding to increase or decrease, depending on the angle or position of the rotor to the stator. For example, when the input voltage drops, the rotor will rotate clockwise to such an angle to make up for the drop in voltage, rotating anti-clockwise to correct for a high voltage.

**IVSI Stabilisers, due to their individual phase sensing and control, is an ideal solution for use with 100% unbalance line voltage or load.**

**IVSI Stabilisers** have no carbon brushes and there is no contact wear. As a result, system reliability is extremely high and IVSI Stabilisers are viewed as virtually maintenance free solutions.



**IVSI Oil Immersed Magnetic Induction Voltage Stabilisers** utilizing **Brushless Technology** are highly reliable. **No carbon brushes**, high efficiency and **maintenance-free**.

### Models:

#### High Voltage (H) Models

380/220V; 400/230V or 415/240V  
(Three Phase)

#### Low Voltage (L) Models

200/115V; 208/120V or 220/127V  
(Three Phase)

### Features:

- **Wide Range of Voltage Stabiliser**  
Three Phase 500 to 2500KVA
- **Input Swing Range**  
Input Swing Range Available from  $\pm 13\%$ ,  $\pm 18\%$ ,  $\pm 23\%$ ,  $\pm 28\%$ ,  
(To Specify)
- **Output Voltage Regulation**  
Output Voltage Accuracy  $\pm 1.5\%$ ,
- **High Efficiency**  
Better than 97%
- **Independent Phase Control Circuit**  
Maintain each phase voltage stable,  
irrespective of load unbalance.
- **Standard Features**  
Loss of Phase & Phase Reversal Alarms  
Over Temperature Alarm  
Over Voltage & Low Voltage Alarms  
Voltmeter/selector switch  
Ammeter/selector switch  
Lightning arresters
- **Optional Accessories**  
Input circuit breaker  
Output circuit breaker  
Over/low voltage protection  
Phase-failure protection  
Frequency meter  
Manual maintenance bypass switch
- **Compliance with International Standards**  
BS EN50081-1;2/IEC 61000-4-3;4  
BS EN5490/IEC 60529
- **CE Conformity**  
EN55022,EN50082-2,ENV50140-1
- **Warranty**  
2 Years

### Applications:

- Cement Manufacturing
- Induction Heaters
- Machine-tool Control
- Manufacturing and Testing
- Motor Testing
- Radiant Heaters
- Semi-conductor Equipment
- Manufacturing Plant



### Oil Immersed Magnetic Induction AC Automatic Voltage Stabilisers & Regulators (Brushless Design)

#### Technical Specifications

<b>Input Swing Range Available (*) (To Specify)</b>	± 13%, ± 18%, ± 23%, ± 28%, 3 Phase 4 Wire (3P+N)
<b>Output Voltage</b>	Presetable for any voltage between 380/220V; 400/230V or 415/240V
<b>Output Voltage Accuracy</b>	± 1.5%
<b>Frequency</b>	47 – 65 Hz
<b>Response Time</b>	<1.5ms
<b>Correction Time</b>	A 10% supply variation will be corrected to within 2.5% in 0.6 seconds.
<b>Efficiency</b>	97%
<b>Power Factor</b>	Any lagging to 0.95 leading
<b>Surge ratings</b>	10 x max current rating for 2 seconds 3 x max current rating for 1 minutes 2 x max current rating for 5 minutes
<b>Surge Suppression</b>	Protect loads against high-energy spikes and transient voltage.
<b>Surge Arrester</b>	40KA at 415V AC Class III (IEC 61643-1:1998-02, EN 61643- 11:2001)
<b>Total Harmonic Distortion</b>	<1%
<b>Independent Phase Control</b>	Maintain each phase voltage stable irrespective of load unbalance, even up to 100% load unbalance.

<b>Environment</b>	Temperature range –15 to 45 °C. Derate by 2% for each additional °C Up to max 60 °C. Suitable for indoor tropical use 95% RH (non-condensing). Maximum altitude 1000m. Derate by 2.5% for each additional 500m.
<b>Standard Features</b>	Loss of Phase & Phase Reversal Alarms Over Temperature Alarm Over Voltage & Low Voltage Alarms Voltmeter/selector switch Ammeter/selector switch Provide No-volt free contact (N.C & N.O)
<b>Construction</b>	Enclosures to IP20, BS EN5490 / IEC 60529
<b>EMC Conformance</b>	BS EN50081-1;2 / IEC 61000-4-3;4
<b>CE Conformity</b>	EN55022, EN50082-2, ENV50140-1
<b>Warranty</b>	Two Years
<b>Optional Accessories</b>	Input circuit breaker Output circuit breaker Over/Low voltage protection Phase failure protection Frequency meter Manual maintenance bypass switch
Note: Optional accessories added may affect dimension, subject to confirmation.	
Note: 1) 208V 3Phase 3Wire or 4Wire options available on order 2) Special voltage configurations available on order	



#### Three Phase Model: IVSI-H-3P-S(\*)

Model:	Rating KVA	Amps @ 380V	Amps @ 400V	Amps @ 415V	Dimensions (mm) W x H x D	Weight (Kgs)
IVSI 500H-3P-S	500	760	722	695	Dimensions and Weight upon request	
IVSI 750H-3P-S	750	1139	1082	1043		
IVSI 1000H-3P-S	1000	1519	1443	1391		
IVSI 1200H-3P-S	1200	1823	1732	1669		
IVSI 1500H-3P-S	1500	2279	2165	2087		
IVSI 1600H-3P-S	1600	2431	2309	2226		
IVSI 2000H-3P-S	2000	3038	2887	2782		
IVSI 2500H-3P-S	2500	3798	3609	3478		

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