



RUGGED INDUSTRIAL GRADE protection against the vagaries of voltage fluctuations on the input utility supply.

FEATURES

- **Automatic Voltage Regulation**
Step less automated voltage regulation - ideal for 95% of all applications.
- **Wide Range of Power Ratings**
Three Phase 200 to 1600 KVA
- **Broad Input Voltage Swing Ranges**
Input Swing - $\pm 10\%$ (S10), $\pm 15\%$ (S15), $\pm 20\%$ (S20), $\pm 25\%$ (S25), $\pm 30\%$ (S30), $\pm 35\%$ (S35) or $\pm 40\%$ (S40) - to specify.
- **High Efficiency**
Better than 98%.
- **Precise Output Voltage Regulation**
Output Voltage Accuracy $\pm 1\%$
- **Transient Voltage Surge Suppression TVSS** - Protects loads against harmful high-energy surges, transients and spikes.



BRUSHLESS MAGNETIC INDUCTION DESIGN AC VOLTAGE STABILISERS & REGULATORS AC THREE PHASE - 200 TO 1600 kVA

MVSI

AIR COOLED DESIGN

MAXIMUM RELIABILITY FOR THE TOUGHEST OF APPLICATIONS

Designed for maximum reliability, making them ideal the toughest of applications, MVSI Brushless AC Automatic Voltage Stabilisers & Regulators enhance power quality, providing industrial - grade voltage regulation and power protection.

Typical Applications include -

- **Office Complexes & Buildings**
Building or whole floor voltage protection of computer and communication systems, elevators and lifts, lighting and environmental cooling/heating systems.
- **Manufacturing Plants & Production Processes**
Building or whole production line protection of industrial automation control, CNC and other heavy duty manufacturing load equipment. Ideal for applications in the Pharmaceutical, Petrochemical, Food Processing, Mining and Paper Mill industries.
- **Broadcasting**
Protection for TV, Radio and Communication transmitter sites and studios.
- **Medical Establishments & Equipment**
Building or floor wide protection of critical medical equipment and systems, including X-Ray, CAT Scan and MRI machines.

Where backup power is deemed unnecessary, or is derived from other sources, MVSI AC Voltage Stabilisers and Regulators deliver, for industrial and commercial buildings and their applications, a practical, efficient and cost effective solution to the power quality issues of Voltage Regulation and Power Protection.

- **Independent Phase Balancing & Control**
Independent phase voltage sensing and control to ensure the individual phase voltages remain stable - regardless of load unbalance .
- **Inbuilt High Overload Capability**
Ideal for loads with an inherent initial high current draw on start up.
- **Brushless Design**
Virtually a maintenance free solution utilising no brushes - making it ideal for remote and unmanned locations.
- **Over / Low Voltage Alarm**
Audible alarm in the event of the input supply voltage going outside the input voltage window.
- **Phase Failure & Reversal Alarm**
Audible alarm in the event of phase failure or reversal.
- **Voltage & Current Metering**
Analogue metering of output voltage and loading with phase selector switches.
- **Remote Operational Status Monitoring**
No Volt Contacts delivering basic operational system status information for use by remote monitoring / building management systems.
- **Optional Accessories**
Input & Output Circuit Breakers, Over / Low Voltage Protection, Phase Failure Protection, Manual Maintenance Bypass Switch & Digital Power Metering. (with RS-485 interface option).
- **Compliance with International Standards**
Designed, manufactured and supplied to comply with leading international standards.

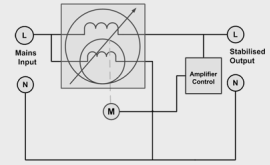
ADVANCED ROBUST BRUSHLESS DESIGN TOPOLOGY

MVSI Air Cooled Voltage Stabilisers utilize Magnetic Induction Brushless Technology to deliver highly reliable and virtually maintenance free voltage stabilisation and protection.

As standard, all MVSI Voltage Stabilisers offer independent phase balancing and control ensuring that each phase voltage remains stable, irrespective of load unbalance – even for situations where a 100% load unbalance may exist.



As a Magnetic Induction based solution, MVSI 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.



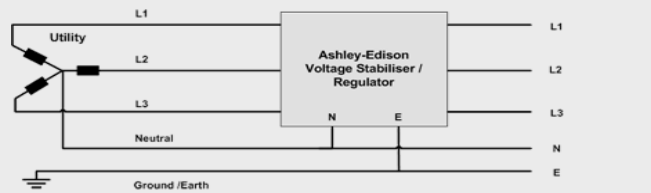
VOLTAGE CHOICES AVAILABLE - H SERIES

4 WIRE SOLUTIONS
THREE PHASE WITH NEUTRAL (4 WIRE SYSTEMS)

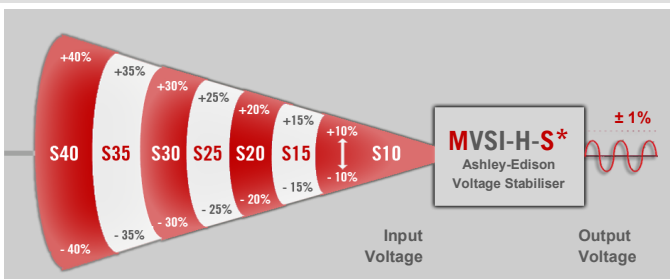
H SERIES High Voltage Models:
200 to 1600 kVA 380/220V, 400/230V or 415/240V.

Other voltages available on individual request / quotation.

Also available as 3 Wire Solutions (No Neutral) - **MVSI-HD SERIES**



INPUT VOLTAGE WINDOW OPTIONS - H SERIES- THREE PHASE - 4 WIRE



In situations where there is a reasonably good mains supply, a Stabiliser offering an input variation swing of $\pm 10\%$ (S10 Models) will usually be more than acceptable, but in more remote locations, or countries where the national supply infrastructure is less developed, variations of $\pm 15\%$ or greater may be needed to be accommodated by the Stabiliser.

Please Note – These Stabilisers are not designed to support / protect voltage “back feed” applications, where energy is required to be also fed back into the utility supply.

H SERIES - MVSI-H-3P-S* - Input Voltage Windows & Output Voltage Accuracy

Nominal Three Phase Voltage	Output Voltage Accuracy \pm % of Nominal	INPUT VOLTAGE SWINGS / SWING MODEL NO S* VARIANTS													
		S10		S15		S20		S25		S30		S35		S40	
		200 to 1600 kVA		200 to 1600 kVA		200 to 1000 kVA		200 to 750 kVA		200 to 600 kVA		200 to 500 kVA		200 to 400 kVA	
Readings	L-L	L-N	L-L	L-N	L-L	L-N	L-L	L-N	L-L	L-N	L-L	L-N	L-L	L-N	
380V L-N: 220V	$\pm 1\%$	342 to 418V ($\pm 10\%$)	198 to 242V	323 to 437V ($\pm 15\%$)	187 to 253V	304 to 456V ($\pm 20\%$)	176 to 264V	285 to 475V ($\pm 25\%$)	165 to 275V	266 to 494V ($\pm 30\%$)	154 to 286V	247 to 513V ($\pm 35\%$)	143 to 297V	228 to 532V ($\pm 40\%$)	132 to 308V
	$\pm 3\%$	334 to 429V (-12% / +13%)	194 to 249V	315 to 448V (-17% / +18%)	183 to 260V	296 to 467V (-22% / +23%)	172 to 271V	277 to 486V (-27% / +28%)	161 to 282V	258 to 505V (-32% / +33%)	150 to 293V	239 to 524V (-37% / +38%)	139 to 304V	220 to 543V (-42% / +43%)	128 to 315V
	$\pm 5\%$	327 to 441V (-14% / +16%)	189 to 255V	308 to 460V (-19% / +21%)	178 to 266V	289 to 479V (-24% / +26%)	167 to 277V	270 to 498V (-29% / +31%)	156 to 288V	251 to 517V (-34% / +36%)	145 to 299V	232 to 536V (-39% / +41%)	134 to 310V	213 to 555V (-44% / +46%)	123 to 321V
400V L-N: 230V	$\pm 1\%$	360 to 440V ($\pm 10\%$)	207 to 253V	340 to 460V ($\pm 15\%$)	196 to 265V	320 to 480V ($\pm 20\%$)	184 to 276V	300 to 500V ($\pm 25\%$)	173 to 288V	280 to 520V ($\pm 30\%$)	161 to 299V	260 to 540V ($\pm 35\%$)	150 to 311V	240 to 560V ($\pm 40\%$)	138 to 322V
	$\pm 3\%$	352 to 452V (-12% / +13%)	202 to 260V	332 to 472V (-17% / +18%)	191 to 271V	312 to 492V (-22% / +23%)	179 to 283V	292 to 512V (-27% / +28%)	168 to 294V	272 to 532V (-32% / +33%)	156 to 306V	252 to 552V (-37% / +38%)	145 to 317V	232 to 572V (-42% / +43%)	133 to 329V
	$\pm 5\%$	344 to 464V (-14% / +16%)	198 to 267V	324 to 484V (-19% / +21%)	186 to 278V	304 to 504V (-24% / +26%)	175 to 290V	284 to 524V (-29% / +31%)	163 to 301V	264 to 544V (-34% / +36%)	152 to 313V	244 to 564V (-39% / +41%)	140 to 324V	224 to 584V (-44% / +46%)	129 to 336V
415V L-N: 240V	$\pm 1\%$	374 to 457V ($\pm 10\%$)	216 to 264V	353 to 477V ($\pm 15\%$)	204 to 276V	332 to 498V ($\pm 20\%$)	192 to 288V	311 to 519V ($\pm 25\%$)	180 to 300V	291 to 540V ($\pm 30\%$)	168 to 312V	270 to 560V ($\pm 35\%$)	156 to 324V	249 to 581V ($\pm 40\%$)	144 to 336V
	$\pm 3\%$	365 to 469V (-12% / +13%)	211 to 271V	344 to 490V (-17% / +18%)	199 to 283V	324 to 510V (-22% / +23%)	187 to 295V	303 to 531V (-27% / +28%)	175 to 307V	282 to 552V (-32% / +33%)	163 to 319V	261 to 573V (-37% / +38%)	151 to 331V	241 to 593V (-42% / +43%)	139 to 343V
	$\pm 5\%$	357 to 481V (-14% / +16%)	206 to 278V	336 to 502V (-19% / +21%)	194 to 290V	315 to 523V (-24% / +26%)	182 to 302V	295 to 544V (-29% / +31%)	170 to 314V	274 to 564V (-34% / +36%)	158 to 326V	253 to 585V (-39% / +41%)	146 to 338V	232 to 606V (-44% / +46%)	134 to 350V

TECHNICAL SPECIFICATION

Technology:	Magnetic Induction Design - Brushless Virtually Maintenance Free																																								
Input Voltage Swing Variant Options Available: (S*)	<table border="1"> <thead> <tr> <th>Model / Accuracy</th> <th>± 1%</th> <th>± 3%</th> <th>± 5%</th> <th>Max Rating</th> </tr> </thead> <tbody> <tr> <td>S10</td> <td>± 10%</td> <td>-12% +13%</td> <td>-14% +16%</td> <td>1600 kVA</td> </tr> <tr> <td>S15</td> <td>± 15%</td> <td>-17% +18%</td> <td>-19% +21%</td> <td>1600 kVA</td> </tr> <tr> <td>S20</td> <td>± 20%</td> <td>-22% +23%</td> <td>-24% +26%</td> <td>1000 kVA</td> </tr> <tr> <td>S25</td> <td>± 25%</td> <td>-27% +28%</td> <td>-29% +31%</td> <td>750 kVA</td> </tr> <tr> <td>S30</td> <td>± 30%</td> <td>-32% +33%</td> <td>-34% +36%</td> <td>600 kVA</td> </tr> <tr> <td>S35</td> <td>± 35%</td> <td>-37% +38%</td> <td>-39% +41%</td> <td>500 kVA</td> </tr> <tr> <td>S40</td> <td>± 40%</td> <td>-42% +43%</td> <td>-44% +46%</td> <td>400 kVA</td> </tr> </tbody> </table> <p>Three Phase, 4 Wire (3 Phase + Neutral). Other swing options available to special quotation / order.</p>	Model / Accuracy	± 1%	± 3%	± 5%	Max Rating	S10	± 10%	-12% +13%	-14% +16%	1600 kVA	S15	± 15%	-17% +18%	-19% +21%	1600 kVA	S20	± 20%	-22% +23%	-24% +26%	1000 kVA	S25	± 25%	-27% +28%	-29% +31%	750 kVA	S30	± 30%	-32% +33%	-34% +36%	600 kVA	S35	± 35%	-37% +38%	-39% +41%	500 kVA	S40	± 40%	-42% +43%	-44% +46%	400 kVA
Model / Accuracy	± 1%	± 3%	± 5%	Max Rating																																					
S10	± 10%	-12% +13%	-14% +16%	1600 kVA																																					
S15	± 15%	-17% +18%	-19% +21%	1600 kVA																																					
S20	± 20%	-22% +23%	-24% +26%	1000 kVA																																					
S25	± 25%	-27% +28%	-29% +31%	750 kVA																																					
S30	± 30%	-32% +33%	-34% +36%	600 kVA																																					
S35	± 35%	-37% +38%	-39% +41%	500 kVA																																					
S40	± 40%	-42% +43%	-44% +46%	400 kVA																																					
Output Voltage:	<p>Pre-settable for any voltage between 380/220V, 400/230V, or 415/240V - <i>Customer to Specify</i>, Three Phase, 4 Wire. (3 Phase + Neutral)</p> <p>The permissible input voltage swing is relative to the preset output voltage.</p>																																								
Output Voltage Accuracy:	± 1%, ± 3% or ± 5% - <i>auto selection based on input voltage swing.</i>																																								
Frequency:	47 - 65Hz																																								
Response Time:	<1.5ms																																								
Correction Time:	A 10% supply variation will be corrected to within 2.5% in typically 0.6 to 1 second - <i>dependent on the selected permissible input voltage swing and system rating.</i>																																								
Efficiency:	≥ 98%																																								
Power Factor:	Any lagging to 0.95 leading																																								
Surge Ratings:	10 x max. current rating for 2 seconds 3 x max. current rating for 1 minute 2 x max. current rating for 5 minutes																																								
Surge Suppression:	TVSS - Protects loads against high-energy Spikes and Transient Voltages.																																								

Total Harmonic Distortion:	Less than 1%
Independent Phase Control:	Maintains each phase voltage stable irrespective of load unbalance, even up to 100% load unbalance.
Environment:	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.
Construction:	Enclosures to IP20 (NEMA 1 Style) - BS EN 60529.
Paint Colour:	RAL 7032 (Grey - Epoxy Powder Coating)
EMC Conformance:	Complies with BS EN 55022 and the relevant parts of the BS EN 61000 series of standards.
CE Conformity:	CE Marked - being fully compliant with European Union Directives 2004/108/EC (The EMC Directive) and 2006/95/EC (The Low Voltage Directive).
Standard Warranty:	Two Years / 24 Months from date of supply
Standard Features:	Loss of Phase & Phase Reversal Alarms Over Temperature Alarm Over Voltage & Low Voltage Alarms Voltmeter / Selector Switch Ammeter / Selector Switch No-Volt Free Contacts (N.C & N.O)
Optional Accessories:	Isolation Transformer, Frequency Meter, Lightning Surge Arrestors, Manual Maintenance Bypass Switch, Input & Output Breakers, Over/Low Voltage Protection, Phase Failure Protection, IP21 Drip Proof Cowl (336 Enclosures Only), IP54 Ingress Protection Enclosure - 0MVSI SERIES , Digital Power Metering (with RS-485 Option) - showing V,A,W,VA,AER, PF & kWh and AquaStop Protective Coating - protection against damp and moisture ingress

Note: Optional Accessories added may affect dimensions - subject to confirmation.

H SERIES PRODUCT SELECTION TABLE

MODEL	kVA	Max Rating @ (Amps per Phase)			Dimensions & Weights
		@ 380V	@ 400V	@ 415V	
MVSI-200H-3P-S*	200	303	288	278	Dimensions & Weights available on Request - according to the S* Swing Model Variant required.
MVSI-250H-3P-S*	250	380	361	348	
MVSI-300H-3P-S*	300	456	433	417	
MVSI-350H-3P-S*	350	532	505	487	
MVSI-400H-3P-S*	400	608	577	556	
MVSI-450H-3P-S*	450	684	649	626	
MVSI-500H-3P-S*	500	760	722	695	
MVSI-600H-3P-S*	600	911	866	835	
MVSI-650H-3P-S*	650	988	938	904	
MVSI-700H-3P-S*	700	1064	1010	974	
MVSI-750H-3P-S*	750	1139	1082	1043	
MVSI-800H-3P-S*	800	1216	1155	1113	
MVSI-900H-3P-S*	900	1367	1299	1252	
MVSI-1000H-3P-S*	1000	1519	1443	1391	
MVSI-1200H-3P-S*	1200	1823	1732	1669	
MVSI-1500H-3P-S*	1500	2279	2165	2087	
MVSI-1600H-3P-S*	1600	2431	2309	2226	

Note: Higher kVA and alternative voltage options available to order / individual request.



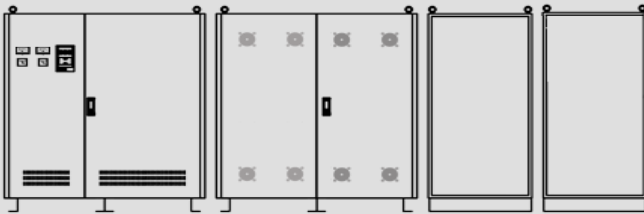
STANDARD ENCLOSURE TYPES

ALSO available in Outdoor IP54 / NEMA 3 Style Enclosures - **OMVSI** SERIES

336 Enclosure

336 - Bottom Cable Entry

Front Rear Left Side Right Side



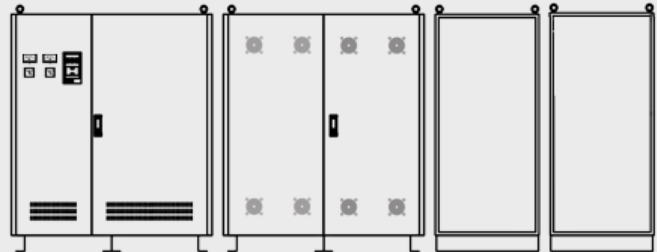
Physical Size:

336	1280(W) x 1480(H) x 660(D) mm	50.4"(W) x 58.3"(H) x 26.0"(D) inches
------------	-------------------------------	---------------------------------------

337 Enclosure

Top Cable Entry (Bottom to Special Order)

Front Rear Left Side Right Side



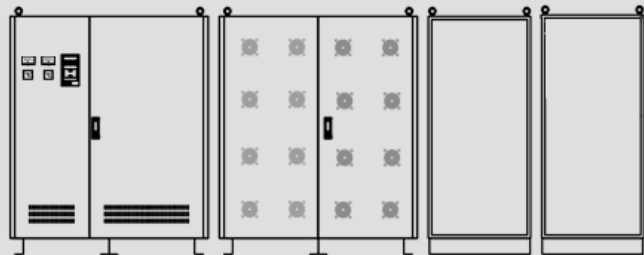
Physical Size:

337	1280(W) x 1950(H) x 880(D) mm	50.4"(W) x 76.8"(H) x 34.7"(D) inches
------------	-------------------------------	---------------------------------------

338 Enclosure

Top Cable Entry (Bottom to Special Order)

Front Rear Left Side Right Side



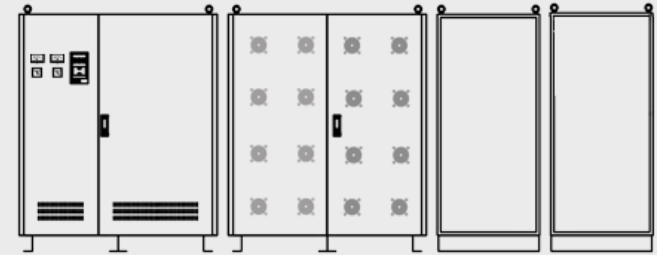
Physical Size:

338	1340(W) x 1950(H) x 1280(D) mm	52.8"(W) x 76.8"(H) x 50.4"(D) inches
------------	--------------------------------	---------------------------------------

339 Enclosure

Top Cable Entry (Bottom to Special Order)

Front Rear Left Side Right Side



Physical Size:

339	1470(W) x 1950(H) x 1340(D) mm	57.9"(W) x 76.8"(H) x 52.8"(D) inches
------------	--------------------------------	---------------------------------------

AVAILABILITY

We offer probably the best availability on AC Voltage Stabiliser & Power Conditioning solutions.

Many of our most popular ratings are readily available from stock at the factory or from one of our strategically located Service and Distribution Hubs. Where a solution is not readily available, due to our considerable investment in component inventory and fine-tuned accredited build processes, we are able to ensure very short lead times on deliveries – *even for the largest of models!*

NEED HELP SELECTING THE RIGHT MODEL FOR YOUR NEEDS?

Check-out our Online Selection Tool at
<http://www.AshleyEdison.com/Selector>

CUSTOM BUILT SOLUTIONS

Ashley-Edison, with a strong and wide manufacturing base, is able to meet the requirements of customers from our own in-house professional resources.

Where bespoke / custom built solutions are required we are able to call upon our extensive portfolio of proven standard designs and tailor offerings to accommodate, without breaking the bank, most individual specific requirements.

Copyright 2014 © Ashley-Edison (UK) reserve the right to change any or all the specifications indicated or implied without prior notice. E&EO.

