

# AC Automatic Voltage Stabilisers & Regulators

Cost Efficient Voltage Stabilisation Solutions with Fast Speed of Response and High Output Voltage Accuracy

AC mains voltage fluctuations can cause equipment to behave erratically and malfunction. Some systems may even break down due to these fluctuations, noise or spikes. Failure to ensure the incoming mains voltage is stable and clean, can often result in costly equipment repairs.

Ashley-Edison, utilizing an **Advanced Digital Controller** for our Electromechanical / Electronic Servo **SESL Series** Voltage Stabilisers, are designed to ensure that, should the incoming mains voltage drift high or low, the output voltage remain continuously constant. Characterised by high efficiency, they are completely unaffected by Power Factor, Load and Frequency variations. They are capable of withstanding high instantaneous overloads and do not generate any magnetic interference. Compact in size, quiet in operation, these Voltage Stabilisers are suitable for indoor use and may be located near to sensitive equipment.

Our Voltage Stabilisers are equipped with **Bypass Control Switches**. These switches are incorporated on every phase independently and bypass can be activated individually OR all 3 phases can be bypassed according to requirement.

**Soft Switch-ON** feature will ensure that the Voltage Stabiliser is at its minimum upon switch-on before it commence full stabilization. Lack of this feature may cause high output voltage surge in stabiliser.

### Input Swing Redundancy

These Voltage Stabilisers are equipped with **Parallel Redundant Voltage Regulation Control Modules (VRCM)**. It is incorporated on each phase of the Stabiliser. Should one Module (VRCM) fail or malfunction, the other parallel Module will operate automatically **without causing interruption to the load** and also without affecting capacity. In other words, should one of these Control Units malfunction or fail, the Voltage Stabiliser will operate at 50% swing without affecting the stabiliser operation. The other two phases which is not affected, will still regulate independently as per normal, at 100% swing. This feature has a major added advantage of reducing inconvenient and expensive downtime and will ensure that the voltage control is regulated continuously. This feature is especially useful for critical load application. Downtime is minimized.

### 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 250 to 2500KVA
- **Input Swing Range**  
Input Swing Range Available from  $\pm 10\%$ ,  $\pm 15\%$ ,  $\pm 20\%$ ,  $\pm 25\%$ ,  
(To Specify)
- **Output Voltage Regulation**  
Output Voltage Accuracy  $\pm 0.5\%$ ,
- **High Efficiency**  
Better than 98%
- **Independent Phase Control Circuit**  
Sensing on all Individual Three Phases
- **Input Swing Redundancy**  
Parallel Redundant Voltage Regulation Control Modules
- **Soft Switch-ON**  
Ensure that the Voltage Stabiliser is at its minimum before it commence full stabilization

### Applications:

- Computers
- Medical Equipment
- Electronics Equipment
- Testing Equipment
- Laboratory Equipment
- POS Terminals
- Process Control Systems

## SESL SERIES THREE PHASE 250KVA ~ 2500KVA



Utilizing Advanced Digital Controller

- **Standard Features**  
Over/low voltage relay  
Bypass control switch  
Voltmeter / Selector switch  
Ammeter / Selector switch
- **Optional Accessories**  
Input circuit breaker  
Output circuit breaker  
Over/low voltage protection  
Phase-failure protection  
Frequency meter  
Manual maintenance bypass switch  
Lightning arrester
- **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**
  - TV/Radio Broadcasting Stations
  - Elevators
  - Audio/Video Systems
  - Security Systems
  - Production Line
  - CNC Equipment
  - SMT Equipment



## AC Automatic Voltage Stabilisers & Regulators

### Technical Specifications

<b>Input Voltage</b>	400/230VAC $\pm$ 20% 3 Phase 4 Wire (3P+N)
<b>Output Voltage</b>	Presettable for any voltage between 380/220V; 400/230V or 415/240V
<b>Output Voltage Accuracy</b>	$\pm$ 0.5%
<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>	98%
<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>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>Input Swing Redundancy</b>	Parallel Redundant Voltage Regulation Control Modules (VRCM) is incorporated on each phase. Should one Module fail or malfunction the other parallel Module will operate automatically without causing interruption to the load and also without affecting capacity.

<b>Soft Switch-ON</b>	Ensure that the output voltage is at its minimum upon Switch-On before it commence full stabilization
<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>	Over/low voltage relay (Volt-free Contact) Bypass control switch Voltmeter / Selector switch Ammeter / Selector switch
<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>Optional Accessories</b>	Input circuit breaker Output circuit breaker Over/Low voltage protection Phase failure protection Frequency meter Lightning arrester 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 3) Higher KVA rating options available on order	



### Three Phase Model: SESL-H-3P-S20

Model:	Rating KVA	Amps @ 380V	Amps @ 400V	Amps @ 415V	Dimensions (mm) W x H x D	Weight (Kgs)
SESL 250H-3P-S20	250	380	361	348	1280 x 1950 x 820	940
SESL 300H-3P-S20	300	456	433	417	1280 x 1950 x 820	1142
SESL 350H-3P-S20	350	532	505	487	1280 x 1950 x 820	1197
SESL 400H-3P-S20	400	608	577	556	1280 x 1950 x 820	1207
SESL 450H-3P-S20	450	684	649	626	1280 x 1950 x 1200	1600
SESL 500H-3P-S20	500	760	722	695	1280 x 1950 x 1200	1620
SESL 600H-3P-S20	600	911	866	835	1280 x 1950 x 1200	1749
SESL 650H-3P-S20	650	988	938	904	1280 x 1950 x 1200	2211
SESL 700H-3P-S20	700	1064	1010	974	1280 x 1950 x 1200	2226
SESL 750H-3P-S20	750	1139	1082	1043	1280 x 1950 x 1200	2241
SESL 800H-3P-S20	800	1216	1155	1113	1280 x 1950 x 1200	2550
SESL 850H-3P-S20	850	1291	1227	1183	1280 x 1950 x 1200	2580
SESL 900H-3P-S20	900	1367	1299	1252	1280 x 1950 x 1200	2610
SESL 1000H-3P-S20	1000	1519	1443	1391	1280 x 1950 x 1200	2640
SESL 1200H-3P-S20	1200	1823	1732	1669	1280 x 1950 x 1500	2900

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