sinalda®.COM
mains voltage control

QUALITY WITH UP TO 3 YEARS STANDARD WARRANTY GUARANTEED

SVS-2P
L SERIES

Servo-Electronic / Electro-Dynamic

AC Voltage Stabilizers / Power Conditioners

Cost Efficient Voltage Stabilization with fast speed of response, high output voltage accuracy and inbuilt energy saving ability

Suitable for 98% of all applications

Servo Electronic Design | Automatic Voltage Regulation | Power Conditioning | Over & Under Protection | Spike & Surge Protection | Lightning Surge Protection

Commercial & General Industrial Applications

Split Single / Two Phase
5 to 150kVA

CE UKCA

IP 54 OPTION

UK

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This brochure is presented as an overview of the SVS ranges of Split Single / Two Phase indoor and outdoor Servo-Electronic / Electro-Dynamic based Voltage Stabilizers / Power Conditioners - as designed and manufactured by Sinalda UK.

Our SVS ranges of Split Single / Two Phase AC Voltage Stabilizers/ Power Conditioners have proven to be our most popular power protection offerings. Capable of regulating the supply voltage to virtually any type of electrical or electronic equipment that suffers from supply line fluctuations, the latest generation of Servo Electronic protection solutions continues to lead the market by setting new higher performance levels, whilst always ensuring unparalleled reliability and versatility.

With over 30 years of unrivalled experience, gained in some of the world's most challenging and demanding power environments, our SVS Stabilizers / Power Conditioners are able to handle the widest of input voltage windows (up to and over ±30%).

Now with extended range coverage, and the inclusion as standard of many advanced protection features (usually only available from others as additional expensive add-on options), SVS-2P Stabilizers are widely held to be the finest ranges of affordable Quality Split Single Phase AC Voltage Stabilizers / Power Conditioners.

SOUTHERN ENTERPRISE AWARDS 2022
sinalda.com
mains voltage control
Best AC Voltage Stabilisers & Power Line Conditioning Specialists 2022

CONTENTS

Quality Guaranteed

International Standards Compliance

QUALITY GUARANTEED

Designed in the UK, and built at our manufacturing plant in Taiwan utilizing ISO 9000 accredited build processes, all our stabilizers / power conditioners are designed and built to comply with leading international standards.

UK CA CE

Only by consistently delivering exceptional long-term performance and quality are we able to endorse our product offerings with a "truly market leading" standard warranty of up to 3 Years.

Commercial & General Industrial Applications

ENSURING A STABLE AC UTILITY MAINS VOLTAGE

BEST VALUE BEST CHOICE

IP 54 OPTION

All mains powered equipment requires a supply which is maintained within certain limits. Too low and the equipment will malfunction, too high and the equipment could be serious damaged. In many developed and developing economies, power demand is outstripping supply, giving rise to large voltage swings, surges and brownouts in the supply.

Failure to ensure the incoming mains voltage is stable and clean can often result in costly equipment repairs and unplanned down-time.

SVS Split Single / Two Phase AC Voltage Stabilizers / Power Line Conditioners offer -

Voltage Stability & Protection

Suitable for all electrical and electronic equipment, SVS AC Voltage Stabilizers continuously monitor the incoming supply. Should the incoming voltage rise or drop, the Stabilizers will automatically control the output to ensure the voltage reaching the load equipment always remains constant at the requisite voltage. With inbuilt Transient Voltage Surge Suppression (TVSS), they also protect electrical and electronic load equipment against, all to common, harmful high-energy surges, transients and voltage spikes.

Durability & Dependability

With an impressively wide range of input voltage window options and precise tight output voltage regulation, the electro-dynamic / servo-electronic design based SVS Voltage Stabilizers have repeatedly proven their durability and dependability in some of the world's harshest and most demanding power environments. All SVS AC Voltage Stabilizers include as standard many advanced protection and control features - such as Independent Phase Sensing, TVSS, Input Circuit Breaker, Electronic Controls Bypass Switch, Soft-Switch On and Lightning Surge protection, which others only offer as expensive add-on options.

Energy Efficiency

Configured to optimize energy usage and deliver energy cost savings, SVS Stabilizers generate no magnetic interference, are completely unaffected by power factor, or load and frequency variations and are capable of withstanding high instantaneous overloads. Their compact and quiet nature means these they are suitable for indoor use and may be located near to sensitive equipment.

Unparalleled Protection and Value

When looking for affordable durable Quality voltage protection, the SVS Ranges of AC Voltage Stabilizers from Sinalda UK lead the market in all respects.

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How to choose the right system

SELECT

1. Rated Voltage & Range — See Page 6
2. Input Voltage Variation Range — See Page 6
3. Power Rating — See Page 7
4. Any Add-On Options Required — See Page 9
5. Ask for a Quote — See Page 12

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STANDARD FEATURES

UK CA CE

Stepless Automatic Voltage Regulation

Should the incoming voltage rise or drop, the Stabilizers will automatically control the output to ensure the voltage reaching the load equipment remains within the load equipment's intended requisite input voltage window.

Power Conditioning

Shielded isolation transformer providing extra protection between the utility and the load. Protects against common and transverse electrical noise. Delivers what is commonly referred to as a 'CLEAN' supply.

Wide Range of Power Ratings

Models are available in a wide range of power ratings from 6 to over 150kVA.

Broad Input Voltage Variation Ranges

Available with a wide range permissible input voltage window, SVS Series Voltage Stabilizers are ideal for virtually all types of load applications and the most challenging of power environments.

Precise Output Voltage Regulation

With a default 1% accuracy on the output voltage, SVS Stabilizers are suitable for the most sensitive of loads. Where deemed appropriate the output voltage accuracy can be adjustable from between 1 to 5%.

Transient Voltage Spikes & Surge Protection

Protection against all too common everyday high energy spikes and transient voltages typically introduced into the utility mains supply by nearby disturbances resulting from peak power demands or stop/start operation of electrical machines.

High Overload Capability

Ability to support electrical and electronic equipment with inherent initial high current draws on start up.

Start-Up Load Protection & Restart Time Delay

A preset time delay on system re-start is designed to prevent nuisance tripping. This feature ensures that load appliances are not switched on-off repeatedly during fluctuations, nor are they subjected to massive surges usually experienced when power returns after power outages.

Over & Under Voltage Protection

Ability to configure the Voltage Stabiliser/Power Conditioner, if required, to shut down in the event of the incoming voltage supply going outside the normal input window.

Class II Lightning Surge Protection

Protection of the load equipment from the potentially damaging effects of high transient over-voltages introduced indirectly into the utility mains supply following a lightning strike.

Bypass Switch

A useful emergency feature which, in the unlikely event of a system malfunction, enables the bypassing of the electronic controls circuitry to provide power direct to the load.

Front Panel Status Monitoring & Metering

Mounted on the front of the enclosure with Over and Under Voltage LED indication, Output Voltage and Current Metering and Power On / Off controls.

OPERATING DESIGN PRINCIPLE

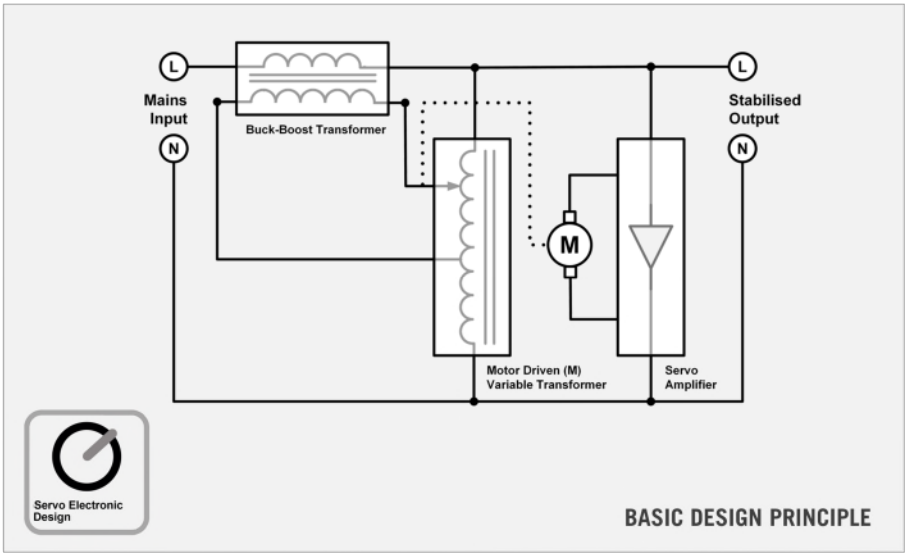
- TRIED, TESTED AND WELL PROVEN

UK DESIGN

Over the last 30 years our Servo Electronic ranges have been tried, tested and extensively proven in all corners of the world – including some of the harshest and most remote power environments on this planet.

From the blistering heat of Arabian Desert to the sub-zero temperatures and remoteness of the Caucasian mountains, our Servo-Electronic Stabilizers and Conditioners can be found on duty offering protection to vital equipment where the supply must never be found wanting – not even for a single second!

Being able to accommodate input voltage swings of in excess of 40%, whilst still delivering accuracy on the output of 1% or better, the Servo Electronic design principle comprises a transformer having its secondary winding connected between the mains supply and the load. The primary voltage is automatically controlled through a servo motor driven variable transformer, thereby ensuring a continuous, smooth and very stable output voltage.



A solid state Servo-Amplifier continuously monitors the output voltage of the stabilizer. Should, due to an incoming voltage or load current change, the output voltage deviate from the required value, the Amplifier sensor instructs the servo motor to rotate the brush-gear on the variable transformer to correct the output for the deviation. The speed of detection and actions of the servo system are exceptionally fast, with controlled motor deceleration to minimize any possibility of overshoot.

Over the years with advances in semi-conductor, motor and digital technologies, our development engineers have considerably enhanced the performance of the basic design principle. Our latest Servo-Electronic / Electro-Dynamic generation of solutions deliver the most reliable, fastest acting, highly stable and most energy efficient operation seen in the market today.

SVS-60L-2P-S15-PC (240V)

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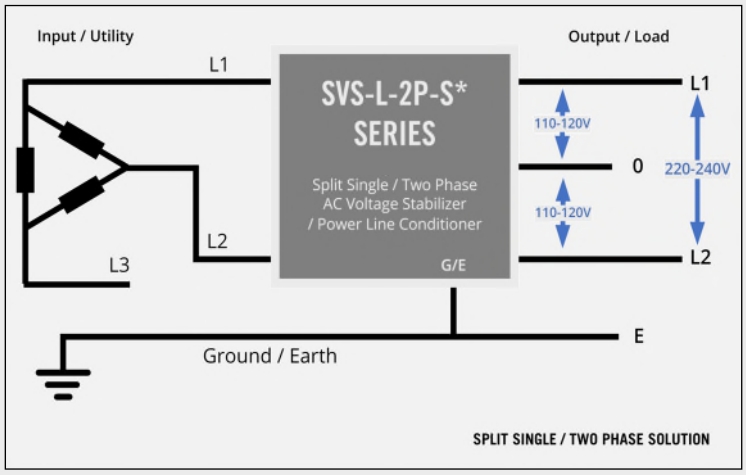
VOLTAGES CHOICES AVAILABLE

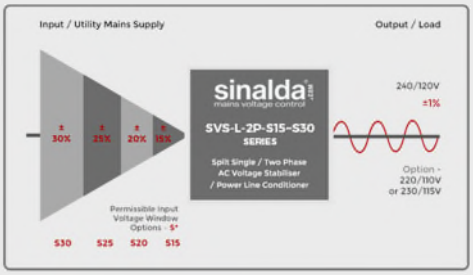
SVS-2P L SERIES

Nominal Voltages:

220/110V 230/115V **240/120V**



INPUT VOLTAGE WINDOW VARIATIONS AVAILABLE



In situations where there is a reasonably good mains supply, a Stabilizer / Conditioner offering an input voltage variation swing of ±15% **(S15 Models)** will usually be more than acceptable, but in more remote locations, or countries where the national supply infrastructure is less developed, variations of ±20% or greater may be needed to be accommodated by the Stabilizer / Conditioner.

Please Note - For 'Back Feed' applications, where energy is required to be also fed back into the utility supply, the Stabiliser / Conditioner must be ordered with the 'BF' option added.

SVS-2P L SERIES

Voltages:

220/110V 230/115V **240/120V**

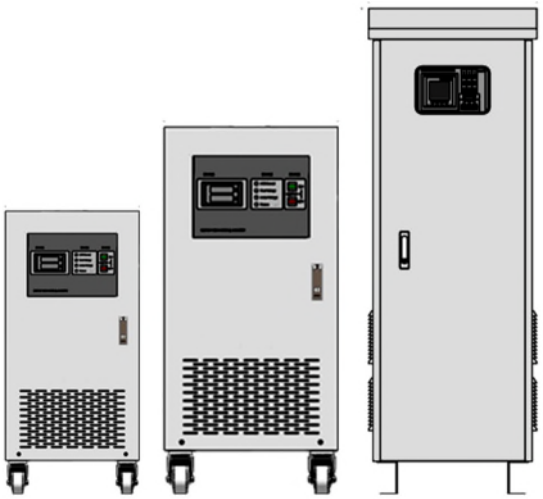
Nominal Supply Voltage V	INPUT VOLTAGE SWINGS / SWING MODEL NO VARIANTS S*			
	[S15]	[S20]	[S25]	[S30]
	5 to 150 kVA	5 to 120 kVA	5 to 100 kVA	5 to 75kVA
	L-L	L-L	L-L	L-L
220V	187 to 253V	176 to 264V	165 to 275 V	154 to 286V
	(220V ± 15%)	(220V ± 20%)	(220V ± 25%)	(220V ± 30%)
230V	196 to 265V	184 to 276V	173 to 288V	161 to 299V
	(230V ± 15%)	(230V ± 20%)	(230V ± 25%)	(230V ± 30%)
240V	204 to 276V	192 to 288V	180 to 300V	168 to 312V
	(240V ± 15%)	(240V ± 20%)	(240V ± 25%)	(240V ± 30%)

Note: Alternative voltage options available on special quotation.

AVAILABLE POWER RATINGS

All SVS Voltage Stabilizers and Power Line Conditioners are designed for the maximum input current for the ratings stated below.

When sizing it is always considered 'best practice' to add an extra safety margin for possible future expansion, Typically we always suggest adding a margin of at least 20 to 25%.



Model: S* = Select Input Voltage Swing Required - S15 to S30)	Rating kVA	Max Rating					
		Amps @ 220/110V		Amps @ 230/115V		Amps @ 240/120V	
		220V (L-L)	110V (L-CT)	230V (L-L)	115V (L-CT)	240V (L-L)	120V (L-CT)
SVS-5L-2P-S*-PC	5	22	2 x 22	21	2 x 21	20	2 x 20
SVS-8L-2P-S*-PC	8	36	2 x 36	34	2 x 34	33	2 x 33
SVS-10L-2P-S*-PC	10	45	2 x 45	43	2 x 43	41	2 x 41
SVS-15L-2P-S*-PC	15	68	2 x 68	65	2 x 65	62	2 x 62
SVS-20L-2P-S*-PC	20	90	2 x 90	87	2 x 87	83	2 x 83
SVS-30L-2P-S*-PC	30	136	2 x 136	130	2 x 130	125	2 x 125
SVS-40L-2P-S*-PC	40	181	2 x 181	173	2 x 173	166	2 x 166
SVS-50L-2P-S*-PC	50	227	2 x 227	217	2 x 217	208	2 x 208
SVS-60L-2P-S*-PC	60	272	2 x 272	260	2 x 260	250	2 x 250
SVS-75L-2P-S*-PC	75	340	2 x 340	326	2 x 326	312	2 x 312
SVS-100L-2P-S*-PC	100	454	2 x 454	434	2 x 434	416	2 x 416
SVS-120L-2P-S*-PC	120	545	2 x 545	521	2 x 521	500	2 x 500
SVS-150L-2P-S*-PC	150	681	2 x 681	652	2 x 652	625	2 x 625

Note: Dimensions and Weights are available on request - according to the S* Swing model variant required.

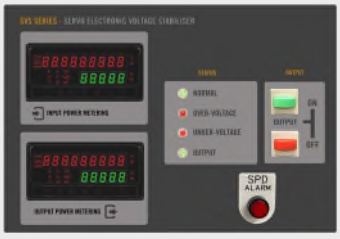
FRONT DISPLAY PANEL

Mounted on the front of the enclosure with Over and Under Voltage LED indication, Output Voltage and Current Metering and Power On / Off controls.

Standard Display Panel

Alternative Digital Power Metering Options

DPM Option (see Page 9)



DPM2 Option (see Page 9)

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TYPICAL APPLICATIONS

- Computers & The Internet
- Multimedia & Audiovisual
- Communication & Broadcasting
- Air Conditioning & Heating
- Refridgeration & Cold Storage
- Manufacture & Production

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Commercial Buildings & Offices

Industrial Buildings

Aviation & Aerospace

Entertainment & Leisure

Healthcare & Life Sciences

Military & Police

Oil & Gas Exploration

GENERAL TECHNICAL SPECIFICATION

Technology:	**Servo Electronic** - Variable Transformer controlled, series regulation transformer (buck-boost transformer with secondary wired in series with the load).		
Input Voltage: (*Customer to specify*)	240v, 230V or 220V Two Phase (Line to Line) 2 Wire + Earth/Ground		
Input Voltage Swing Variant Options Available: (S*) (*Customer to specify*)	**Model**	**Window**	**Available Ratings**
	S15	**±15%**	5 to 150kVA
	S20	**±20%**	5 to 120kVA
	S25	**±25%**	5 to 100kVA
	S30	**±30%**	5 to 75kVA
Output Voltage: (*Customer to specify*)	Presettable for any voltage between 240/120V, 230V/115V or 220/110V (Line to Line / Line to CT - Centre Tap) 3 Wire + Earth/Ground The permissible input voltage swing is relative to the preset output voltage		
Output Voltage Accuracy:	**±1%** (*Adjustable ±1% to ±5%*).		
Frequency:	47 - 63Hz		
Response Time:	<1.5ms		
Correction Time:	A 10% supply variation will be corrected to within 2.5% in 0.6 seconds.		
Efficiency:	≥98%		
Power Factor:	The Power Factor has no effect on performance providing the stabiliser is being used within its rated capacity		
Overload Capability:	150% max. current rating for 10 seconds		
Surge Suppression:	**TVSS** - Protects loads against high-energy Spikes and Transient Voltages.		
Total Harmonic Distortion:	Less than 1%		
Start Up Protection:	Protects load equipment from damaging start up voltage surges.		
Restart Time Delay:	Automatic Restart in the event of a Power Outage with an adjustable 10 to 15 second delay.		
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. IP54 Enclosures available as an option.		
Noise:	45 to 120 dB @ 1 metre (dependent on model rating).		
Paint Colour:	RAL 7032 (*Pebble Grey - Epoxy Powder Coating*)		
EMC Conformance:	Complies with BS EN 55022 and the relevant parts of the BS EN 61000 series of standards.		
CE / UKCA Conformity:	**CE / UKCA Marked** - being fully compliant with European Union Directives 2014/30/EU (The EMC Directive) and 2014/35/EU (The Low Voltage Directive) and associated UK regulations.		
Standard Warranty:	Three Years / 36 Months from date of supply (IP54 Models Two Years / 24 Months)		
Standard Features:	Input Circuit Breaker (*Q1*) Output Contactor Over/Low Voltage Protection Automatic Re-Start in the event of Utility Mains Failure with adjustable Re-Start Time Delay Electronic Controls Bypass Switch (*SW1*) Lightning Surge Arrestors (*Class II SPD - 40kA*) Front Status Display Panel with Digital Voltmeter & Ammeter (*inc. Phase Selector Switch*)		

ADD-ON OPTIONS

IP 21 Ingress Protection *[-IP21]*

Addition of a 'Top Hat' Drip Proof Cowl to the IP20 standard enclosure to deliver IP21 Ingress Protection.

IP 54 Ingress Protection *[-IP54]*

System presented in endurable IP54 (BS / EN 60529) / NEMA 3 free-standing steel cubicles suitable for external use, or more challenging internal environments.

Output Circuit Breaker *[-OCB]*

Output Circuit Breaker supplied as an alternative to the Output Contactor, which is fitted as standard on all models. *(For more details See Page 10)*

Full Manual Maintenance Bypass Switch *[-MBS]*

While many Customers, following conventional wisdom, prefer to install a bypass facility that is external to the Stabiliser/Conditioner, where requested models can be fitted with an integrated traditional 'Break Before Make' bypass facility. This feature can be handy when performing remedial works, or undertaking deep maintenance on the system. *(For more details See Page 10)*

Digital Power Metering Options *[-DPM] & [-DPM2]*

[-DPM] - Microprocessor based output digital power metering, with the option of event logging - monitoring V, A, W, VAR, PF, W Hrs & VAR Hrs and the offering RS-485, Modbus RTU, Modbus ASCII, Jbus Protocol interface.

[-DPM2] - Input and Output digital power metering – showing V, A, W, VAR, PF, W Hrs and VAR Hrs.

UL Recognised Component *[-URC]*

For applications where UL compliance is required, the Stabiliser / Conditioner can be supplied with UL approved Input Breakers and Output Contactors / Breakers, so that the client can obtain on site UL approval of the installation.

AquaStop *[-AS]*

PCB protective coating offering protection against damp and moisture ingress.

Back Feed Support *[-BF]*

Support for solar inverter back feed applications

UNDERSTANDING SVS MODEL NUMBERS

Typical Model No.

SVS-50L-2P-S15-PC-IP54 (240V)

1 2 3 4 5 6 7 8

1	**Sinalda Range**	- SVS	5	**Input Voltage Swing**	±15%
2	**Power Rating**	- 50 kVA	6	**Power Conditioning**	- Isolation Transformer
3	**Voltage**	- Low Volt (US Style)	7	**Option Fitted**	- IP54 Enclosure
4	**No of Phases**	- Two Phase	8	**Voltage**	- 240/120V

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Public Services & Administration

Research Laboratories

Charities & Aid Agencies

Typical Outdoor Enclosure

SWITCH ARRANGEMENTS

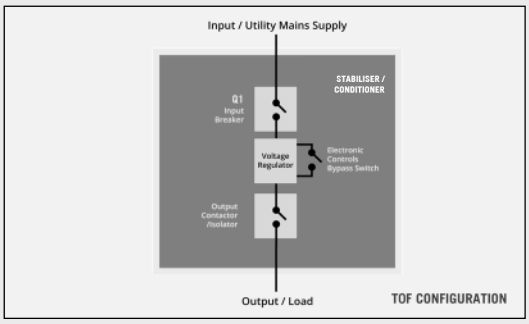
- STANDARD CONFIGURATION

Input Breaker / Switch, Output Contactor / Isolator & Bypass Switch

Input Breaker / Switch - Delivers over current input protection.

Output Contactor / Isolator - Used for switching the Stabiliser / Conditioner On or Off.

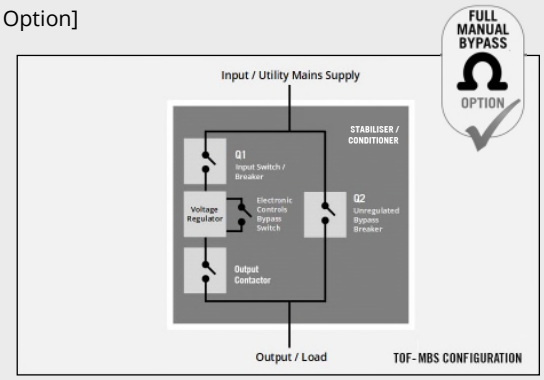
Electronic Controls Bypass Switch - Ability to bypass the inbuilt electronic controls circuitry to provide power to the load via the power stacks. Useful emergency feature in the unlikely event of a system malfunction.



- ADDITIONAL CONFIGURATIONS AVAILABLE

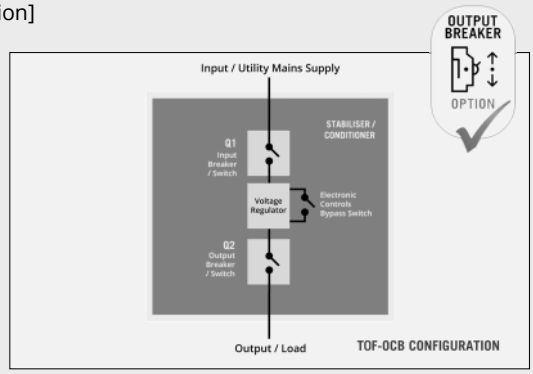
Addition of a Full Manual Bypass Facility [-MBS Option]

Break Before Make' bypass facility offering the ability to route the supply feed to bypass the Stabiliser / Conditioner. Useful when performing deep maintenance on the system, or in the highly unlikely event of a system malfunction.



Addition of an Output Circuit Breaker [-OCB Option]

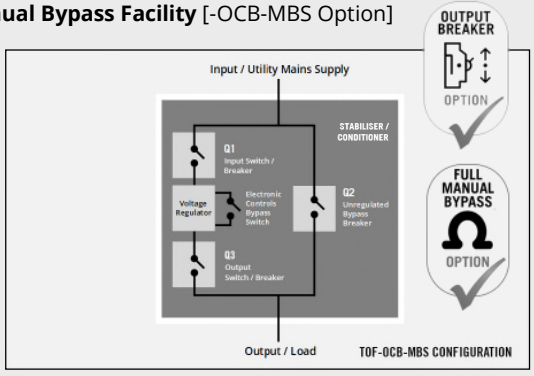
Replacement of the Output Contactor / Isolator with an Output Circuit Breaker



Addition of an Output Circuit Breaker & Full Manual Bypass Facility [-OCB-MBS Option]

Output Circuit Breaker - Replacement of the Output Contactor / Isolator with an Output Circuit Breaker.

Full Manual Bypass Facility - Break Before Make' bypass facility offering the ability to route the supply feed to bypass the Stabiliser / Conditioner. Useful when performing deep maintenance on the system, or in the highly unlikely event of a system malfunction.



FAST CORRECTION TIMES

All our Servo Electronic based solutions offer exceptionally fast correction times. Stated in terms of the time taken to correct a 10% voltage variation to within 2.5% of the required output voltage we offer a correction time of 0.6 seconds.

Taking into account the time constant of power supplies, motors and other components making up the load, the speed of response is usually more than sufficient for 98% of all load types.

SOLID & ROBUST CONSTRUCTION

SVS Series systems are housed in air-cooled IP20 (IEC/BS/EN 60529) / NEMA 1 freestanding steel cubicles, primarily intended for indoor use. These enclosures offer removable panels for ease of installation and servicing and, in addition, on larger three phase models lockable door access is provided.

As an option, drip proof cowls can be fitted to deliver IP21 compliance. For more challenging internal or outside use models are also available housed in IP54 / NEMA 3 enclosures.

SVS-20L-2P-S15-PC (240V)

TRANSFORMER ASSEMBLIES

Our Servo Electronic designs are based on conventional, well proven and reliable technology. The fixed main power transformers, buck boost transformers and chokes have insulated copper windings (wire or strip according to current rating requirements) wound on laminated high permeability steel cores. Variable transformers are similarly wound with insulated copper windings on high permeability lengths of strip steel toroidal cores.

All transformer assemblies/windings manufactured, or used, conform to relevant BS / IEC specifications as appropriate.

SVS-40L-2P-S15-PC (240V)

CUSTOM BUILT SOLUTIONS

Sinalda UK, 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.

Custom enclosure to fit on site size restrictions

AVAILABILTY

We offer probably the best availability on AC Voltage Stabilizer & 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!

SAUK
SVS-2P-S*
2023-02

About Sinalda UK

Bedford, England

Sinalda UK is one of the world's leading specialists in AC voltage stabilisers and power line conditioning – working with companies across the globe to provide state-of-the-art power control solutions.

With a century's worth of combined industry experience, Sinalda is renowned for a tailored approach that guarantees the very best results for clients and a clean, stable voltage supply – collaborating with major corporations and small businesses alike.

The business underwent a rebrand in 2022 – transitioning from its original guise of Ashley-Edison (UK) Limited to Sinalda UK.

WANT FURTHER INFORMATION

Please ask for a copy of the relevant model's Info Sheet.

IP 54 OPTION

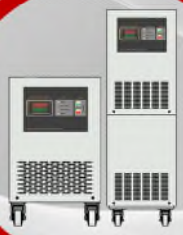
Other SVS Ranges Available

mSVS SERIES

1 to 10kVA

Single Phase

Our highly popular smaller rated Single Phase Servo Electronic / Electro-Dynamic range of Voltage Stabilisers / Regulators



SVS SERIES

1 to 100kVA

Single Phase

Our long-standing traditional Servo Electronic / Electro-Dynamic range of Single Phase AC Voltage Stabilisers and Power Line Conditioners

SVS-3P SERIES

6 to 600kVA

Three Phase

Our traditional Servo Electronic / Electro-Dynamic Three Phase Stabilisers & Conditioners designed for today's demanding power environments

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