



Automatic Voltage Regulation



Spike & Surge Protection



Electrical Noise Filter



Basic Lightning Surge Protection



Restart Time Delay



Fast Response



Solid State



Maintenance Free

MINI
VR SERIES



**AC AUTOMATIC
VOLTAGE STABILISERS
& LINE CONDITIONERS**



- ✓ Brownout & Over / Under Voltage Protection
- ✓ Transient Voltage Surge & Spike Protection
- ✓ Basic Electrical Noise & Lightning Surge Protection
- ✓ Inbuilt Manual Bypass
- ✓ Choice of Input Voltage Ranges
 - F Models - 140 to 270V
 - G Models - 80 to 270V
- ✓ Restart Time Delay / Waiting Time to Limit Nuisance Tripping

500VA to 5000VA

**SINGLE PHASE - 2 WIRE
50 / 60Hz**

F & G Models
220V / 230V / 240V



Low Cost Protection For Today's Modern Power Needs



The Mini VR Series AC Automatic Voltage Stabiliser range is based on 5 different power ratings:

- 500VA (500W) 1000VA (1000W)
- 2000VA (2000W) 3000VA (3000W)
- 5000VA (5000W)

By boosting low voltages and stepping down high voltages, they ensure a stable output voltage. In addition, Mini VR Series Voltage Stabilisers safeguard against all too common everyday transient voltages and spikes - typically introduced into the mains supply by nearby disturbances resulting from peak power demands or stop / start operation of electrical machinery.

Capable of supporting all electrical and electronic modern office and general household appliances (including air conditioners, computers, fridges, TV, satellite and any other electrical loads, models are available for situations where the incoming mains utility supply is between 140V to 270V (**F Models**) or, for more challenging power environments, 80V to 270V (**G Models**).

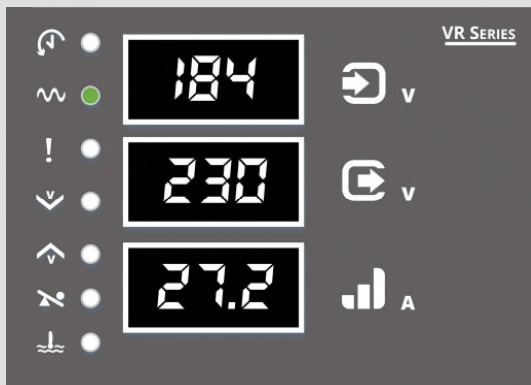
Principle of Operation

Mini VR Series AC Voltage Stabilisers are intended as low cost solutions, being designed around an auto transformer with a single input and multiple outputs. The outputs are arranged in steps / taps delivering a higher or lower voltage.

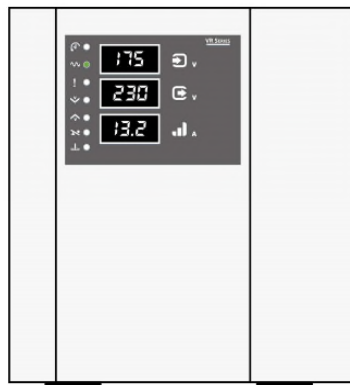
Under normally running conditions the stabiliser will continuously monitor the rise and fall of the incoming utility mains supply. On detection of change in the supply it will energize the most appropriate electro-magnetic switch for selecting the most suitable output winding tap to correct and stabilise the voltage. As a result the load equipment connected to the stabiliser will receive a safe, tolerable voltage and be able to operate reliably - irrespective of the fluctuating and irregularities of the incoming voltage supply.

GENERAL TECHNICAL SPECIFICATION		
RATINGS	VA / WATTS	500, 1000, 2000, 3000 & 5000 VA / WATTS
NOMINAL INPUT VOLTAGES	F MODELS	220V - 230V - 240V AC Single Phase, 2 Wire (L, N & G/E)
	G MODELS	220V - 230V - 240V AC Single Phase, 2 Wire (L, N & G/E)
INPUT VOLTAGE RANGE		See Relevant Model Selection Tables
OUTPUT VOLTAGE ACCURACY		230V ±5% (F Models) 230V ±10% (G Models)
OPERATING FREQUENCY		50 / 60 Hz (35 to 63 Hz)
RESTART TIME DELAY		10 Seconds - To prevent nuisance tripping and protect sensitive equipment against damage. Count down displayed on Display Front Panel
SURGE SUPPRESSION		TVSS - Protects loads against high-energy Spikes and Transient Voltages
SURGE RATING		300 Joules
OVERLOAD RATINGS		10 x Max. Current for 10 milliseconds 5 x Max. Current for 1 second 3 x Max. Current for 1 minute
NOISE FILTERING		LC Filter delivering Common Mode 60dB@100kHz & Normal Mode 40db@100kHz
RESPONSE TIME		200 milliseconds
EFFICIENCY		≥98%
MANUAL BYPASS		Manual Bypass with Mechanical Interlocking
OVER / UNDER VOLTAGE		Display Indication with Output Automatically Disconnected
OVERLOAD PROTECTION		Display Indication with Output Automatically Disconnected
SHORT-CIRCUIT PROTECTION		Automatic Tripping of the Input Circuit Breaker / Switch
OVER TEMPERATURE		Display Indication with Output Automatically Disconnected
LOSS OF SUPPLY		Auto Restart on return of the utility supply
DIGITAL DISPLAY METERING		Showing Input Volts, Output Volts & Load Current (Amps)
ALARMS / INDICATIONS		Restart Delay, Normal, Irregularity, Low Volt, Over Volt, Overload & Over Temperature
OPERATING TEMPERATURE		0 to 45°C. Derate by 2% for each additional °C up to max. of 60°C
MAXIMUM ALLTITUDE		4000 meters. Derate by 2.5% for each additional 500 metres
RELATIVE HUMIDITY		Suitable for indoor tropical use up to 90% RH (non-condensing)
EMC CONFORMANCE		Complies with BS/EN 55022 & the relevant parts of BS/EN 61000 standards
CE CERTIFICATION		CE Marked – being fully compliant with European Union Directives 2014/30/EU (The EMC Directive) and 2014/35/EU (The Low Voltage Directive)
CONSTRUCTION		Freestanding Enclosures to IP20 (NEMA 1 Style) - BS/EN 60529
COLOUR		RAL 1013 (Oyster White - Epoxy Powder Coat)
INPUT & OUTPUT CONNECTIONS		See Relevant Model Selection Tables
PHYSICAL SIZES & WEIGHTS		See Relevant Model Selection Tables
STANDARD WARRANTY		24 Months / 2 Years

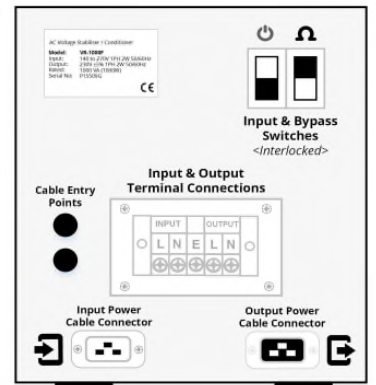
FRONT DISPLAY PANEL



FRONT VIEW



REAR VIEW



VR SERIES - MODEL RANGES

SELECT THE MOST APPROPRIATE VR MODEL

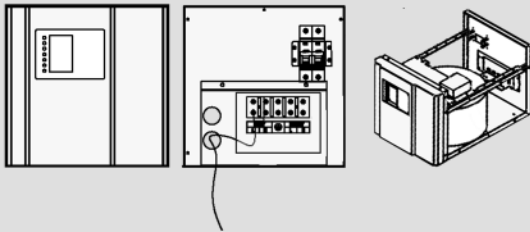
VR-F Series Models

220V to 240V

The Mini VR-F Series AC Voltage Stabiliser / Power Line Conditioner range is based on 5 different power ratings:

- 500VA (500W)
- 1000VA (1000W)
- 2000VA (2000W)
- 3000VA (3000W)
- 5000VA (5000W)

Suitable for all electronic and electrical load types, these microprocessor controlled Regulators are designed to provide a clean and regulated power supply, delivering many years of reliable and maintenance-free protection against the vagaries of the utility mains supply.



Front & Back View | 2 to 5 kVA VR Series Models



VR-F MODELS - SELECTION TABLE		220V / 230V / 240V				
MODEL NUMBER		VR-500F	VR-1000F	VR-2000F	VR-3000F	VR-5000F
MAX. RATING	VA / WATTS	500	1000	2000	3000	5000
	AMPS	2.1	4.3	8.6	13	21.7
INPUT VOLTAGE WINDOW		140V to 270V AC Single Phase, 2 Wire (L,N & G/E)				
OUTPUT VOLTAGE		220V - 230V - 240V Single Phase, 2 Wire (L,N & G/E)				
OUTPUT VOLTAGE ACCURACY		230V ±5%				
MAX. INPUT CURRENT		3.6 Amps	7.2 Amps	14.3 Amps	21.5 Amps	35.9 Amps
INPUT & OUTPUT CONNECTIONS		IEC 320 C13 with 2 x IEC Power Cables			Screw Terminals	
PHYSICAL SIZE (W x H x D)	- UNPACKED (mm)	205 x 215 x 280		235 x 275 x 350		280 x 295 x 380
	- PACKED (cm)	40 x 30 x 30		50 x 42 x 40		
WEIGHT	- UNPACKED	6 Kg	9 Kg	14 Kg	16 Kg	25 Kg
	- PACKED	9 Kg	11 Kg	17Kg	20 Kg	29 Kg

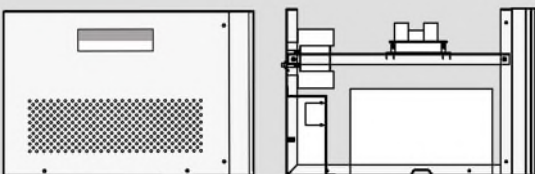
VR-G Series Models

220V to 240V

The Mini VR-G Series AC Automatic Voltage Stabiliser / Conditioner range is based on similar power ratings to F Models:

- 500VA (500W)
- 1000VA (1000W)
- 2000VA (2000W)
- 3000VA (3000W)
- 5000VA (5000W)

Offering a wider permissible input voltage window than F models, they are specifically intended for extremely challenging power environments where the incoming utility mains supply may drop to as low as 80V.



Side View | External & Internal 2 to 5 kVA Models



VR-G MODELS - SELECTION TABLE		220V / 230V / 240V				
MODEL NUMBER		VR-500G	VR-1000G	VR-2000G	VR-3000G	VR-5000G
MAX. RATING	VA / WATTS	500	1000	2000	3000	5000
	AMPS	2.1	4.3	8.6	13	21.7
INPUT VOLTAGE WINDOW		80V to 270V AC Single Phase, 2 Wire (L,N & G/E)				
OUTPUT VOLTAGE		220V - 230V - 240V Single Phase, 2 Wire (L,N & G/E)				
OUTPUT VOLTAGE ACCURACY		230V ±10%				
MAX. INPUT CURRENT		6.3 Amps	12.5 Amps	25.0 Amps	37.5 Amps	62.5 Amps
INPUT & OUTPUT CONNECTIONS		IEC 320 C13 with 2 x IEC Power Cables			Screw Terminals	
PHYSICAL SIZE (W x H x D)	- UNPACKED (mm)	205 x 215 x 280		235 x 275 x 350		280 x 295 x 380
	- PACKED (cm)	40 x 30 x 30		50 x 42 x 40		
WEIGHT	- UNPACKED	7 Kg	10 Kg	15 Kg	19 Kg	27 Kg
	- PACKED	10 Kg	13 Kg	18 Kg	23 Kg	31 Kg

Designed for Modern Needs

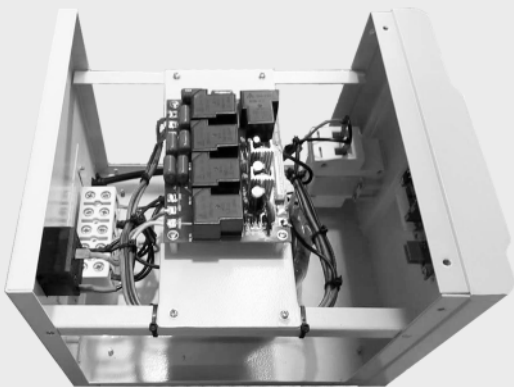
VR SERIES AC Voltage Stabilisers and Power Line Conditioners are designed to stabilise and condition the voltage when it fluctuates, up or down.

They are essential whenever reliable power is needed or when normal operation of electrical or electronic equipment is disrupted by voltage variations, sags or spikes.

In general when suppliers of today's modern electrical and electronic equipment design their products they do so knowing that most electrical utilities around the world cannot provide or promise better than a $\pm 5\%$ output voltage accuracy of nominal and as such they design their equipment so it is able to operate efficiently within this range.

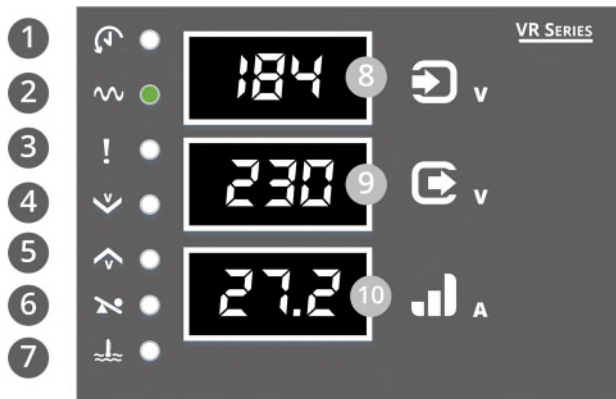
VR SERIES Stabilisers and Conditioners are specifically designed to meet the requirements of today's modern loads, being feature rich and virtually maintenance free static mains control solutions.

They ensure the availability of a constant voltage at a level that always meets the design requirements of the load equipment, even for the most challenging of power environments or site loads.



Internal View | Typical 5 kVA Model

Informative Front Display Panel



LED STATUS INDICATORS & ALARMS

1	Time Delay	10 second delay in the supply of power to the output on start-up and 10 seconds on the re-engagement of the output after an irregular event.
2	Normal	All is Working Fine
3	Irregularities	Fault Condition Present
4	Low Voltage	Input Voltage 10V lower than permissible input Voltage Window. Output will be automatically disconnected. Audible Alarm will activate. On fault clearance Output will be automatically re-engaged.
5	High Voltage	Input Voltage 10V greater than permissible input Voltage Window. Output will be automatically disconnected. Audible Alarm will activate. On fault clearance Output will be automatically re-engaged.
6	Overload	Actual load current exceeds the model's stated maximum rating. Audible Alarm for 60 seconds and then the Output will be automatically disconnected. On fault clearance system will require manual restart.
7	Over Temperature	Internal core temperature of the primary transformer exceeds 120°C. Output will be automatically disconnected. Audible Alarm will activate. On fault clearance system will require manual restart.

DIGITAL METERING

8	Input Volt Meter	Voltage level of the incoming utility mains supply
9	Output Volt Meter	Output Voltage delivered by the system
10	Load Ammeter	Power drawn by the connected load

sinalda

Sinalda UK has evolved to become one of the world's leading specialist providers of AC Voltage Stabilizers and associated power line conditioning solutions.

Our Voltage Control solutions ensure our Customers – from consumers and small businesses to the largest of global organizations – can be certain that their vital systems and manufacturing processes always receive a voltage supply that is stable and clean – free from the vagaries of the mains utility supply.

Want to learn more about us and the Clients we serve?

Check us out online at

<https://www.sinalda.com/sinalda-at-your-service/>



Mini VR SERIES

AC Voltage Stabilisers and Power Line Conditioners are available from -

For Stable, Clean & Optimised AC Voltage

