MicroMate®

Automatic Voltage Stabilizer

AVS Series

1-Phase Automatic Voltage Stabilizer

Production Line System | Telekom | Industry | Medical | Local area Networks | Labs

1 ~ 30KVA (1-Ph in / 1-Ph out)

Product snapshot:

Model: 1 ~ 30KVA

Nominal voltage: 220 / 230 / 240V

Frequency range: 50Hz / 60Hz

Output Power Factor: 1.0

Protection against Voltage Fluctuations

The automatic voltage stabilizer (AVS) is designed to continuously monitor the incoming voltage variations and maintain the required output voltage at all time by doing voltage corrections as and when required. Our AVS provides the elimination of over voltage and under voltage phenomena, thus it has proven to be an effective solution able to prevent potentially dangerous situations created by input voltage instability.

Key Features

- Fully solid state control circuit delivers system reliability, high quality and performance.
- Synchronous motor drive guarantees output voltage stability.
- Excellent output regulation.
- Zero (0%) total harmonic distortion (THD).
- Plug & play design control PCBs allow for easy maintenance.
- High efficiency with negligible losses.
- Under-voltage and over-voltage detectors protection.
- Voltmeters and ammeters, phase indicators.
- Special input/output ranges are available upon request.
- Optional built-in SPD for enhanced spikes and surges protection.

Advantages / Characteristics

- Ensuring peace of mind operation of electrical equipments or machineries to achieve the continuity and quality of production.
- Minimize the machine breakdown or malfunctioning issues due to prolonged over-voltage or under-voltage scenarios.
- Improvements in overall equipment and machinery productivity and hence the return on costs is great.
- The voltage regulation is performed automatically, with fast correction speed.
- The design is with minimal wear-and-tear and maintenance.
- The regulation holds the voltage independently of the equipment frequency.
- Surge loading of up to 3 times of the rated power capacity and hence suitable for motorized.
- The **MicroMate** automatic voltage stabilizer is designed and built in compliance with the European Directives concerning CE marking 2014/35/EU (Low Voltage Directive) and 2014/30/EU (Electromagnetic Compatible Directive).

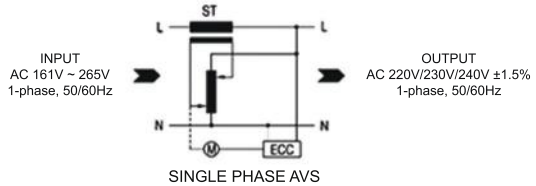
Fields of Applications

The **MicroMate** automatic voltage stabilizer is applicable to a wide range of sectors, from electrical appliances with lower power consumption to heavy-duty industrial equipments. The applications are as follows,

- CNC Machinery
- Production Line System
- Textile Machinery
- Test Equipment
- Photographic Processing Equipment
- Printing Machine
- Industrial Robots System
- Food and Beverage (F&B), Packaging, Bottling Processing Equipment
- Medical and Lab Equipment
- PLC System Equipment
- Hotel and Resort
- Poultry Farm Facility / Establishment
- Telecommunication and Broadcasting

Principles of Operation

The **MicroMate** automatic voltage stabilizer essentially employs a solid-state electronic circuitry that compares the instantaneous output voltage (i.e. true RMS sensing value) with the set value. The error signal resulting from the voltage fluctuation is detected and used to control the servo motor which is coupled onto the bush gear of the variable transformer, causing the brush gear to rotate until the desired output voltage is restored. This method of stabilization provides true proportional control systems as shown in the following diagram.



SINGLE PHASE AVS

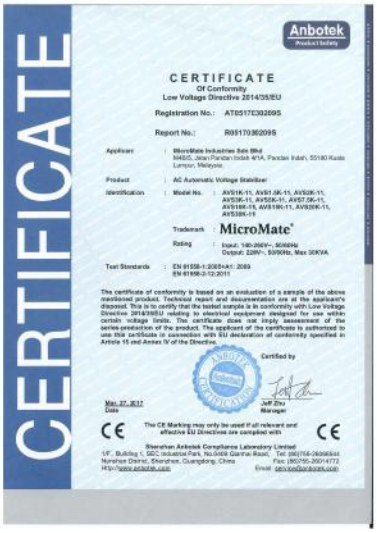
MicroMate®

Automatic Voltage Stabilizer
1KVA to 30KVA (1-Phase)

Technical Specifications

TECHNICAL SPECIFICATIONS										
Model	AVS1K-11	AVS2K-11	AVS3K-11	AVS5K-11		AVS10K-11		AVS15K-11	AVS20K-11	AVS30K-11
Power Rated	1KVA	2KVA	3KVA	5KVA		10KVA		15KVA	20KVA	30KVA
Dimensions (mm^3)	W: 210mm D: 240mm H: 160mm	W: 240mm D: 330mm H: 190mm	W: 240mm D: 320mm H: 220mm	W: 260mm D: 320mm H: 230mm	W: 250mm D: 330mm H: 390mm	W: 300mm D: 480mm H: 380mm	W: 300mm D: 500mm H: 220mm	W: 370mm D: 405mm H: 740mm	W: 370mm D: 405mm H: 740mm	W: 480mm D: 420mm H: 960mm
Weight (approx.)	6KG	9KG	10KG	14KG	23KG	26KG	30KG	58KG	66KG	96KG
Configuration	Auto Transformer with Servo Motor type									
Type	Non-Compensated				Compensated	Non-Compensated		Compensated		
Input	AC 230V +15%, -30% (or AC 161V~265V), 1-ph, 50/60Hz									
Output #1	AC 230V ±1.5% (int. adjustable 220V/240V),1-ph, 50/60Hz									
Output #2	AC 110V ±1.5% (int. adjustable 115V/120V),1-ph, 50/60Hz									
	Available	Available	Available	N/A	N/A	N/A	Available	N/A	N/A	N/A
Power Factor	1.0									
I/O Waveform	Sine wave									
Distortion	~ 0%									
Response Time	50~70ms/V									
Visual Indication	Output Voltmeter	Output Voltmeter Output Ammeter								
Protection	Built-in LC Filtering Circuitry Built-in Changeover Bypass Function (only available for 5KVA~30KVA) Automatic Power-On-Delay for Output MOV Surge Protector Under & Over Voltage Detector Protection Over Voltage Protection Over Temperature Protection									
Efficiency	> 95%									
Ambient & Humidity	0 ~ 45°C and 95% non-condensing									
Compliance Certification	EU Council Directive 2014/30/EU Electromagnetic Compatibility: EN61326-1:2013, EN61000-3-2:2014, EN 61000-3-3: 2013 Low Voltage Directive 2014/35/EU: EN 61558-1:2005+A1: 2009, EN61558-2-12:2011									

Note: Product specifications are subject to change without prior notice.



Authorised Channel:

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BUSINESS OF THE YEAR
MALAYSIA 2005

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BUSINESS SUMMIT
MALAYSIA 2007

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