



AVS Series

3-Phase Automatic Voltage Stabilizer



Production
Line System



Telekom



Industry



Medical



Local area
Networks



Labs

6 ~ 1000KVA (3-Ph in / 3-Ph out)

Product snapshot:

Model: 6 ~ 1000KVA

Nominal voltage: 380 / 400 / 415V

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.
- Models with auto-manual operation facility.
- 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.

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,

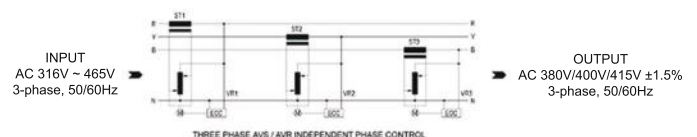
- CNC Machinery
- Production Line System
- Textile Machinery
- Test Equipment
- Photographic Processing Equipment
- Printing Machine
- Industrial Robots System
- Food and Beverage (F&B), Packaging, Bottling Processing Equipment
- Medical and Lab Equipment
- PLC System Equipment
- Hotel and Resort
- Poultry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

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).

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.



Technical Specifications

Model	AVS 6K / 7.5K / 10K	AVS-15K	AVS-20K	AVS-25K	AVS-30K	AVS-45K	AVS-60K	AVS-75K
Power Rated	6KVA / 7.5KVA / 10KVA	15KVA	20KVA	25KVA	30KVA	45KVA	60KVA	75KVA
Size W x D x H (mm ³)	460 x 460 x 860	590 x 590 x 960	520 x 440 x 980	480 x 472 x 971	500 x 480 x 980	710 x 680 x 1400	720 X 800 X 1400	730 X 780 X 1500
Weight (Approx.)	36KG / 40KG / 49KG	111KG	136KG	143KG	150KG	215KG	225KG	285KG

Model	AVS-90K	AVS-100K	AVS-120K	AVS-150K	AVS-180K	AVS-200K	AVS-225K	AVS-250K
Power Rated	90KVA	100KVA	120KVA	150KVA	180KVA	200KVA	225KVA	250KVA
Size W x D x H (mm ³)	980 X 800 X 1500	980 X 800 X 1600		1400 X 850 X 1900			1300 X 1030 X 2180	
Weight (Approx.)	320KG	365KG	435KG	550KG	560KG	570KG	680KG	710KG

Model	AVS-300K	AVS-320K	AVS-350K	AVS-400K	AVS-500K	AVS-600K	AVS-800K	AVS-1000K
Power Rated	300KVA	320KVA	350KVA	400KVA	500KVA	600KVA	800KVA	1000KVA
Size W x D x H (mm ³)		1030 x 1330 x 2180				1850 X 1200 X 1900		
Weight (Approx.)	870KG	900KG	940KG	957KG	1260KG	1640KG	2300KG	2510KG

Configuration	Auto Transformer with Servo Motor type for individual phase
Input	AC 400V ±16%, -21% (316V ~ 465V), 3-phase +N, 50Hz
Output	AC 400V ±1.5% (int. adjustable 360V~440V), 3-phase +N, 50Hz
Power Factor	1.0
I/O Waveform	Sine wave
Distortion	~ 0%
Response Time	50~70ms/V
Visual Indication	Output Voltmeter and Ammeter, Phase Indicators
Protection	Built-in LC Filtering Circuitry Built-in Changeover Bypass Function Automatic Power-On-Delay for Output Sensing Relay for Phase Loss Protection MOV Surge Protector Under & Over Voltage Detector Protection Over Current Protection Over Temperature Protection
Efficiency	> 95%
Ambient	0 ~ 45°C
Humidity	95% non-condensing
Compliance Certification	EU Council Directive 2014/30/EU Electromagnetic Compatibility: EN 61000-6-4:2007+A1:2011, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61000-6-2:2005 Low Voltage Directive 2014/35/EU: EN 61558-1:2005+A1:2009, EN 61558-2-12:2011

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



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