



SH-T-POWER



UNI EN ISO 9001-2008
CERTIFICATO N° I 121

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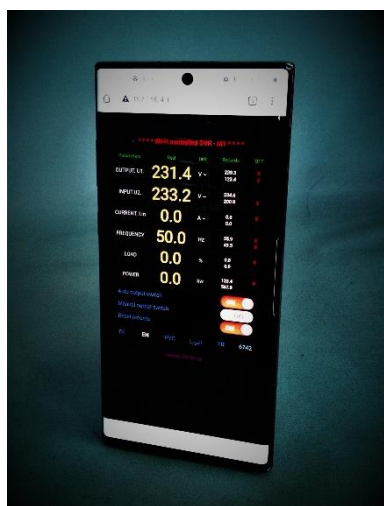
VSA1-WF

SINGLE PHASE 5KVA : 50kVA

Single phase electromechanical stabilizers

Wi-Fi control

TECHNICAL SPECIFICATION



wi-fi
technology



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SINGLE PHASE ELECTROMECHANICAL VOLTAGE STABILIZERS VSA1 5KVA to 50KVA

We designed a new product that makes life easier for the user. The Wi-Fi network feature is absolutely the biggest advantage of this device over similar devices.

With the Wi-Fi module on the voltage regulator, many parameters of the voltage regulator can be monitored, controlled or modified by connecting to a Wi-Fi network using any browser on a computer, tablet or smartphone.

VSA stabilizers deliver a constant voltage by correcting voltage drops and increases occurring on the grid or in the internal structure of the electrical system.

Our voltage regulators operate automatically to adjust the voltage without any user intervention.

Once the regulator is on, network voltage is measured continuously and the necessary raising/lowering operations are performed automatically, providing the system with the constant voltage required for proper operation.

The servo regulators consist of a variable transformer, a servo motor that controls the variac, a multimeter with electronic management that controls the motor and the buck-boost transformer.

The high torque of the motor quickly corrects thanks to the DC servo motor and the control system that can respond quickly to any voltage changes.

When the regulation has been completed, the servo motor is de-energized with an electronic braking circuit.

Electrical and transient disturbances do not disturb the regulation

It is possible to safely power every area that needs regular electricity supply without problems.



Fig.1: WF version

The new VSA1 stabilizers offer features such as:

Undisturbed pure sinusoidal voltage regulation

AC voltage balancing with extremely high accuracy.

Producing intensely, keeping the output voltage stable within $\pm 1\%$ (227.7V - 232.3V) while the input voltage is between 172V – 264V.

Run smoothly on all loads from 0% to 100%.

Long-term overload protection and short-term protection.

When protections are activated, record the number of protection trips and the reason for each parameter separately.

Record mains input voltage limits and load current values.

Protection of the user from negative voltages.

Protection of the user and the device from excessive current.

Static, not gradual, dynamically correct output voltage too quickly without user notice.

Display all values against the probabilities in the bypass regime.

Manual transfer to bypass regime without regulating.

Control system by **Wi-Fi** network.



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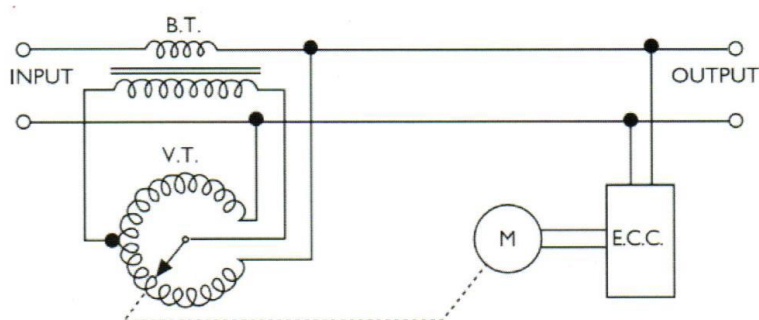
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Fig.3: structure of models from 15kVA

SINGLE-PHASE ELECTROMECHANICAL STABILIZERS– PRINCIPLE OF OPERATION



ATTENTION: THE STANDARD MODEL IS NOT TESTED FOR OPERATION IN SYSTEMS WHERE THE PRESENCE OF PHOTOVOLTAIC SYSTEMS CAUSES CURRENT TO FLOW FROM THE OUTPUT TO THE STABILIZER INPUT (BIDIRECTIONAL OPERATION). A (BD) VERSION IS AVAILABLE WITH CURRENT CONTROL DISABLED AND THE INSERTION OF A PROTECTION CIRCUIT BREAKER OR OUTPUT FUSE TO ENSURE CORRECT OPERATION IN THE PRESENCE OF A PHOTOVOLTAIC SYSTEM. THE RANGE OF ELECTRONIC PRODUCTS (IMP) IS TESTED FOR BIDIRECTIONAL OPERATION.



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MODEL VSAxxxWF	105	107	110	115	120	130	140	150
KVA power	5	7.5	10	15	20	30	40	50
Input								
Input voltage	230Vac 1ph +N							
VOLTAGE range	172Vac ~ 264Vac (-25%+15%) [other ranges available on request, such as 110-240 and 180-280]							
Input frequency	47 : 64 Hz							
Output								
Output voltage	230Vac (adjustable 200:250V)							
Output accuracy	± 1%							
Output Current A	22	32	43	65	86	130	173	217
Power factor	1							
Overload capacity	200% load 10" – 101:150% load 2’							
Output frequency	47 : 64 Hz (as input frequency)							
Response speed	< 1.5/1000 sec							
Adjustment speed	80V / sec							
Efficiency	Min. 95%							
Display	Digital meter with voltage/output current reading and status reports (mains and bypass)							
Protections								
Input protection	Automatic Circuit breaker							
Output protections	Short circuit, overcurrent, low-high voltage, through output contactor							
By-Pass	Manual By-pass included							
MCB output	Optional							
OTHER DATA								
Cooling	Natural air cooling							
Protection class	IP20 (other degrees of protection available on demand)							
Temp. environment max.	-10° C ~ +50°C							
Altitude	Up to 1000 m without derating							
Relative humidity	96% (without condensation)							
Sound level	< 30dB				< 50dB			
Color	RAL7035							
Dimensions WxDxH cm	33x35x56		38x40x61	50x51x86			50x61x86	60x124x115
Weight kg.	35	38	50	55	110	140	150	260