TECHNICAL SPECIFICATION

THREE-PHASE ELECTROMECHANICAL VOLTAGE STABILIZER

SET-EM 04-14

Elsist
UNINTERRUPTIBLE POWER SUPPLY

DESCRIPTION

Electromechanical voltage stabilizers use a variable toroidal transformer, a BUCK-BOOST transformer, and an electronic circuit that controls the rotation of the variable transformer, thus regulating the output voltage. With the control system, in a very fast response time, the high-torque regulation motor regulates small voltage changes very quickly. The servomotor is put out of service by the limit switches when it is outside its operating limits and by the control circuit when the output voltage is automatically adjusted to the set value. When the regulation is complete, the motor's energy is cut with the help of an electronic opening circuit, operating in complete silence.
Regulation occurs independently on each phase. The system is equipped with a bypass switch which allows the load to be powered with mains voltage in the event of a malfunction or need. Using the setting buttons you can adjust the output voltage, precision range, regulation speed, and high-low voltage limits. It is then possible to adjust the maximum current control and the relative hysteresis time. A display shows the input and output voltage, and the current delivered, on each phase

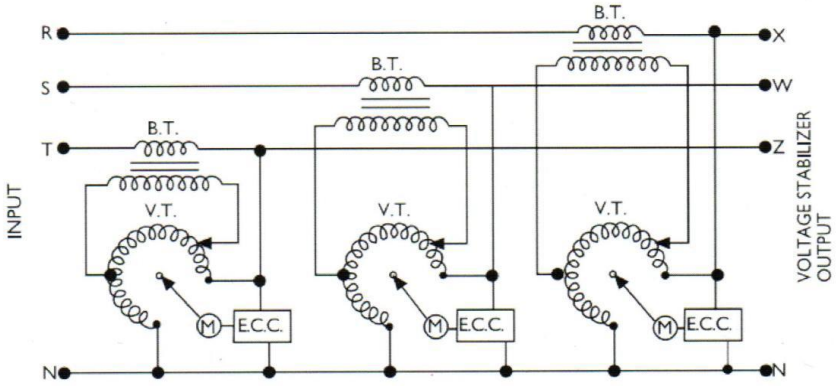
TECHNICAL FEATURES

Protection from voltages that are not adequate for the users.
Protection of user and device from excessive currents.
Pure sinus voltage regulation.
Long-term overload protection and instant protection.
AC voltage balancing with extreme precision.
It runs smoothly on all loads from 0% to 100%.
Manual change to bypass mode without adjustment.
Displays all values in the bypass regime.
Records input voltage and load current limits.
Static, non-gradual, dynamically corrected output voltage.
When protections are activated, it records the number of protection trips and the reason for each trip.
Standard regulation is ±1% (396V -404V) stable when input voltage is within range.

IP54 Version
available on request

Attention: this product is not tested for operation in systems where the presence of photovoltaic systems also involves the passage of current from the output towards the input of the stabilizer (bidirectional operation).
Only the electronic product range (SET) is tested for bidirectional operation.

PRINCIPLE OF OPERATION



CODE SET-EM	**04**	**05**	**06**	**08**	**09**	**11**	**12**	**13**	**14**
Power (KVA/KW)	10/10	15/15	22/22	30/30	45/45	60/60	75/75	100/100	150/150
INPUT									
Input voltage	400Vac 3ph + N								
Voltage range	300Vac ~ 460Vac [other ranges available on request, like 190-415 and 310-485]								
Input frequency	47 : 64 Hz								
OUTPUT									
Output voltage	400Vac (adjustable 380:415V)								
Output accuracy	± 1%								
Output current A	15	21	32	43	65	86	108	144	217
Overload capacity	200% load for 10” / 150% load for 2’								
Output frequency	47 : 64 Hz (same as input frequency)								
Power factor	1								
Regulation Speed	90V / sec								
Efficiency	min. 97%								
Load max unbalance	100%								
Display	Digital instrument with output voltage/current/power reading on each phase and chained Digital voltmeters reading input phase voltage								
PROTECTIONS									
Input protections	Automatic circuit breaker								
Output protections	Short circuit, low-high current, low-high voltage, low-high frequency, phase sequence, inrush current via output contactor								
By-Pass	Manual By-pass included								
MCB output	Optional								
MCB input	Included								
OTHER DATA									
Cooling	Forced ventilation regulated by internal thermostat								
Protection class	IP20 (higher protections available on request)								
Max ambient temp.	-10° C ~ +40° C								
Altitude	1000 mt above sea level								
Relative humidity	95% (without condensation)								
Acoustic pressure	< 50dB								
Colour	RAL7035								
Dimensions WxDxH cm	40x63x116		40x63x127		60x88x139			66x94x165	120x84x185
Weight kg.	115	125	140	165	200	290	320	360	575

Technical data and images are indicative only and may be changed at any time without notice

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