

# SINGLE-PHASE ELECTRONIC VOLTAGE STABILIZER

## SEM 05-12



## “SEM” series single-phase electronic voltage stabilizer

SEM stabilizers represent a highly technological solution for the correct power supply of sensitive equipment in situations where the mains voltage is not reliable and precise. Produced with the highest quality semiconductor materials and controlled by a microprocessor, they manage situations of extreme and sudden voltage variations with great efficiency and reliability, thanks to the very high regulation speed (500Vac/sec.). Easy to use thanks to the compact design, they do not require periodic maintenance, they are not affected by dusty environments, humidity, vibrations.



### CHARACTERISTICS



Safe use with any type of load

Microprocessor control and protection unit

Input voltage range -25%+15%, 172 V AC to 264 V AC options:  $\pm 15\%$ , -35%+15%, -50%+15%

regulation speed 500V/sec

static regulation with modular Thyristor structure and SMPS technology - high efficiency, absolute silence

LCD front panel

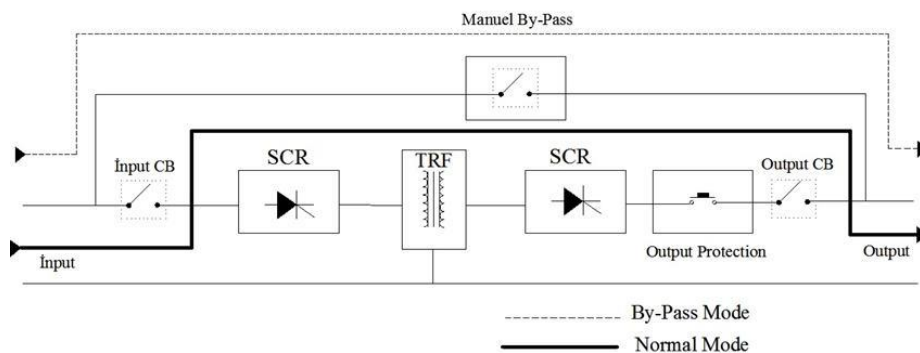
Maintenance-free product is not damaged by dust, moisture or vibration.

In the event of a fault, automatic disabling and manual by-pass allow direct operation of the user from the mains; release contactor for high/low voltage, overcurrent and for start-up delay.

Manufactured with the highest quality components to prevent risks of failure

Optional isolation transformer, available on request

Produced in an ISO-9001:2015 Quality Management System certified factory



Product block diagram

Nominal power	Models available from 5 to 40kVA
Power factor	1.0
Input voltage	230Vac single phase (1P + N)
Input voltage variation in standard versions	from 172V to 265V (-25%+15%)
Optional versions on request	input range $\pm 15\%$ , -35%+15%, -50%+15%
Input frequency	50/60Hz $\pm 5\%$
Output voltage	230Vac single phase
Current available in output	based on power delivered, see table
Output voltage accuracy	Standard $\pm 2\%$ (o $\pm 3\%$ o $\pm 1\%$ based on input range) Accuracy option available based on input range $\pm 1\%$ o $\pm 0.5\%$
Adjustment	thyristors
Adjustment speed	500 V/sec (2/1000 sec/V)
Efficiency at full load	> 97%
Max harmonic distortion	3%
Permissible load variation	from 0 to 100%
Overload permitted	3' at 110-125% of load 10" at 126-150% of load 0.2" over 151% of load
Environment Temperature	from -10°C to +40°C
Relative humidity	up to 90% non-condensing
Altitude	up to 2000mt above sea level without power reduction
Ventilation	Forced air (rear fan)
Noise	< 50dB (A) at 1mt 100% of load
Color	RAL7035

#### Protections:

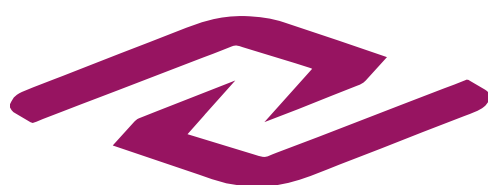
Automatic shutdown with output contactor for high/low voltage or overload  
Automatic shutdown for overtemperature, short circuit, thyristor failure  
Input circuit breaker

#### Display indications:

Input voltage  
Output voltage  
Output frequency  
Load percentage  
Overtemperature warning  
Out of range voltage warning  
Information on technical service  
Failure event recording

Code	Nominal power	rated current	Dimension W x D x H cm	Weight KG.
E.SEM05	5kVA	22 A	20x41x37	25
E.SEM06	7.5kVA	32 A	27x45x46	30
E.SEM07	10kVA	43 A	27x45x46	40
E.SEM08	15kVA	65 A	27x45x46	55
E.SEM09	20kVA	87 A	27x45x46	70
E.SEM11	30kVA	130 A	31x52x52 *	95
E.SEM12	40kVA	174 A	31x52x52 *	120

\* dimensions may vary based on component availability and costs at the time of production



# Naicon

UNIT



Diloc



Elsist



Naicon srl Via il Caravaggio, 25 Trecella I 20060 Pozzuolo Martesana - Milano (Italy)  
Tel. +39 02 95.003.1 Fax +39 02 95.003.313 [www.naicon.com](http://www.naicon.com) e-mail: [naicon@naicon.com](mailto:naicon@naicon.com)