

PRESS THE ENERGY  
SAVING BUTTON.

CHOOSE SEM  
FOR YOUR ELEVATOR.



→ INTRODUCING SEM

Powered by

**ENCOSYS**  
Energy Control Systems

Find out more  
**ABOUT SEM**



## Three phase performances also when **monophasic**

**SEM is an energy storage system** for elevators, that allows to recover the kinetic energy of the cabin during the braking phase, and the potential energy during the descending phase, that can be used during acceleration and rising phases.

### How does it work?

The system is composed by an electronic control part and an energy accumulator (flywheel).

SEM allows to control the energy flow between the elevator and the electricity grid, storing the energy into the accumulator, improving the absorption and power conditions.

Through the energy storage and its collection for a future use, we get that the instantaneous power required by the elevator and its movement, is not entirely supplied by the grid, but it partly comes from the accumulator.



## Advantages for CONDOMINIUM



### COMPATIBILITY AND EASY INSTALLATION

It can be installed without invasive measures, both on existing or new plants, hydraulic or electrical, in less than 2 hours, without any difficult programming.

### BOOST YOUR PROPERTY VALUE

Installing an high energy efficient device, boosts the energy efficiency class, thereby the property value.

### HIGH PERFORMANCES

It guarantees a faster speed higher comfort, more precise positioning, using less power and energy, even when monophasic

### ENERGY SAVING

SEM guarantees a saving up to 45% on used energy, thanks to the recovery and storage of available energy during descent phase, and a saving of necessary energy going up.

*\* available for regenerative elevators*

-75%

Used power reduction

-45%

Energy consumption reduction

45%

SAVING ON YOUR BILL

## Working even during a black-out.

The elevator doesn't stop, instead  
it continues working in complete safety

Not always an energy efficiency improvement allows a money saving:

**SEM does!**

Saving is just a  
**SEM** away!



**How long do I need  
to get back on the investment?**

It usually takes four years.

**SEM Investment amortization comes from saving on bills.**

Unlike traditional inverters, SEM allows you to save also on installation costs, according to the installed power.

Therefore a smaller power consumption is equal to a lower installation cost.

## HOW MUCH YOU CAN SAVE



### MONEY SAVING

SEM can reduce about the 75% of the supply used by a traditional elevator, with an important saving on your bill. An hydraulic elevator needs at least 12 kW to work, by using **SEM control system you need only 3 kW.**

### 50% TAX CREDIT AND VAT AT 10%

Installing SEM, you can enjoy the benefits provided for energy efficiency improvements of buildings and favored VAT at 10%.



SINGLE PHASE

### Cost Comparison on Hydraulic Lift with and without SEM

| Plant type         |     | Without SEM       | With SEM                       |
|--------------------|-----|-------------------|--------------------------------|
| Engaged power      | kW  | <b>15</b>         | <b>3</b>                       |
| Consumption        | kWh | 2250              | 1900                           |
| Fixed cost         |     | € 188,57          | € 188,66                       |
| Power cost         |     | € 497,08          | € 89,42                        |
| Energy cost        |     | € 377,11          | € 318,45                       |
| Accisa tax         |     | € 6,98            | € 5,89                         |
| County tax         |     | € 20,93           | € 17,67                        |
| VAT                |     | € 229,04          | € 130,22                       |
| <b>Total cost</b>  |     | <b>€ 1.319,70</b> | <b>€ 750,31</b>                |
| <b>Annual Save</b> |     |                   | <b>€ 569,39</b><br><b>-43%</b> |

## ENERGY EFFICIENCY

SEM energy recovery system is the right key to today's needs of **buildings' streamlining.**

### Installing SEM allows to:

- Increase the efficiency value of the elevator
- Let the property energy efficient class grow
- Increase the property value

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About 850.000 elevators perform more than 200 million of movements every day in Italy...

**Make them efficient is our goal.**

### OUR COMPANY

Encosys is an Italian company founded in 2009, from the idea of 4 professional people, with more than 10 years' experience and business achievements, in the environment and sustainable energy branches.

They all have a common goal: create a company with an high technological content, paying particular attention to saving and energy efficiency.



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