

PLUG & SINGLE-PHASE

System that mitigates peak power consumption to 500W, enables the elevator for long-term operation after blackout, reuses braking energy and, adding optional solar panels transforms the elevator to a ZERO NET ENERGY one.

P2S

plug & single-phase

POWER SUPPLY FOR ELEVATORS



by epic power

ADVANTAGES

- » **Reduces peak power consumption** to 500W, therefore no three-phase mains is required and single-phase supply is sufficient.
- » Elevator continues in operation for a prolonged time after a blackout occurs.
- » » When **motor generates** energy, it is stored in the accumulators.
- » **Contributes to reduce stand-by consumption** up to 30%. Drive stand-by can be completely avoided.
- » **Prolongs VVVF drive's life.**
- » No auxiliary backup supply (UPS) is needed.
- » **Inclusion of solar energy** is an option.
- » Suitable for new lifts or existing ones under modernization.



What is it?

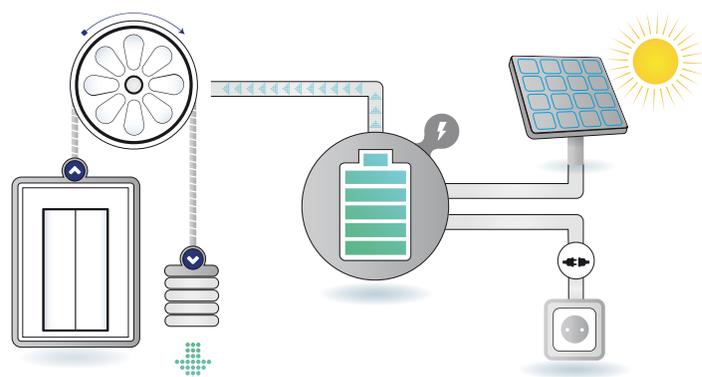


P2S is an intelligent power supply for any elevator, new or existing. It enables single-phase supply of the lift.

The included **accumulators** allow for hundreds of trips after a mains failure or lack of supply.

This system simplifies the electrical installation as no three-phase mains is needed, just **single-phase**. The peak power consumption by the lift is now **500W** or less in all situations.

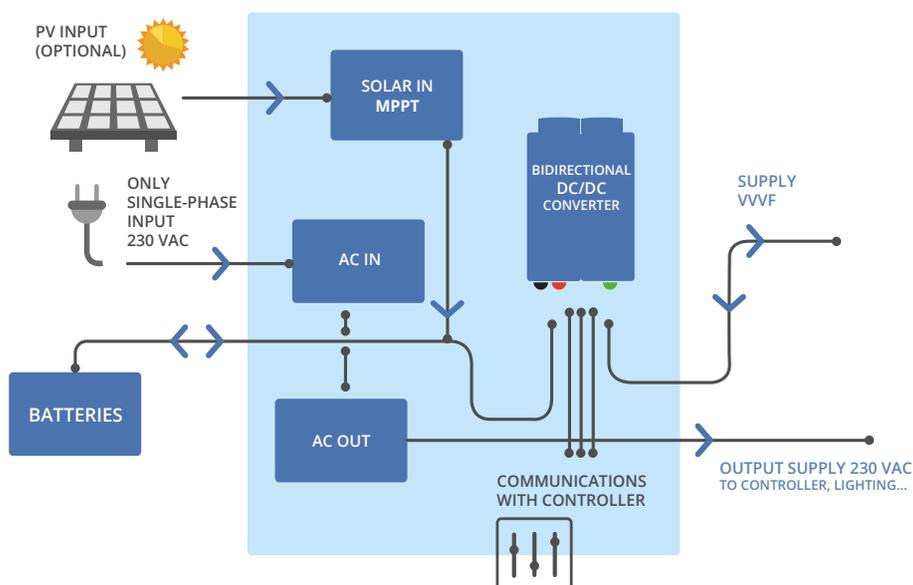
The option of adding **two solar panels** guarantees that the elevator consumes **ZERO energy** during day time.





The system comprises

- » A **single-phase** 500W input.
- » **Two outputs:**
 - » 600 Vdc to feed the VVVF drive (a 400 Vac one) but directly to the DC link. Connection to mains is no longer needed. Bidirectional DC/DC converter feeds drive from 48 Vdc accumulators.
 - » 230 Vac to supply control, door operators, brakes, etc.
- » **Optional input from solar panels.**
- » Extensive communication signals to and from the control such as for example, battery state-of-charge or energy consumption.
- » **Energy accumulators** granting the elevator to operate for more than 100 trips lacking mains.



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ABOUT P2S

- » Enables a normally three-phase mains fed elevator to be supplied with single-phase mains with a very reduced peak power. It simplifies the electrical installation of the building and significantly **reduces the contracted peak power** with the electrical company
- » After a blackout the elevator continues in operation with an autonomy of about **100 trips**
- » Saves up to 70 % energy



ABOUT US

Designing, developing and manufacturing very efficient high power converters since 2009.

epic power is a key power electronics partner for energy efficiency and energy storage solutions:

- » Flexible systems
- » Customized designs
- » Experienced engineering support

Product range and features

	P2S 3k5W	P2S 5k5kW	P2S 7kW
Maximum input power	500 W	500 W	500 W
Input voltage	230 Vac - (90~305 Vac - 47~63Hz)		
Nominal output power (to VVVF drive)	3500 W	5500 W	7000 W
Maximum output power (to VVVF drive)	4000 W	6300 W	8000 W
Output voltage (to VVVF drive)	600 Vdc - Compatible with 400 Vac three-phase drives Soft Start - Drive can be started as many times as required not compromising life expectancy		
Maximum output power @ 230 Vac	400 W or 700 W (different options available)		
Energy storage	48 Vdc From 1kWh up to requirements		
Allied with the sun	One or two 72 cells solar panels in parallel (optional)		



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