ERS

Energy Recovery System for lifts

Better than REGENERATIVE

Top advantages*

- More efficient lift.
- Reduction of running costs.
- Complies with all industry standards.
- Easy installation (<1hour).
- For new or existing lifts.
- No grid feedback (avoids THD problems).

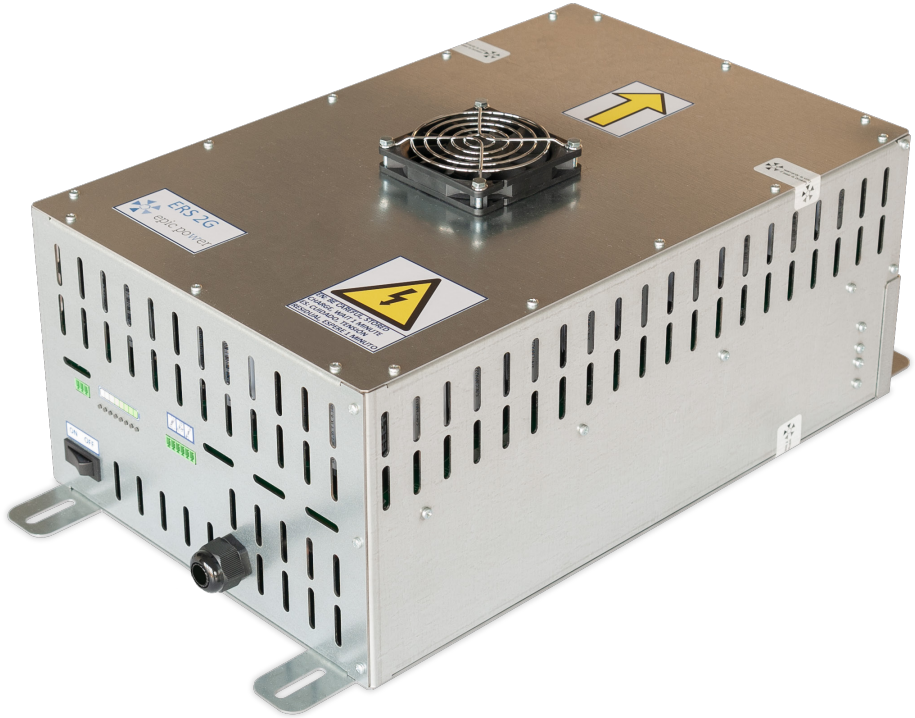
*2024 customer satisfaction survey

Recommended ERS in parallel given total travel distance and maximum load (for 1m/s)

1,0 m/s	800 kg	1000 kg	1600 kg	2000 kg	2500 kg	3000 kg
27 m	1	1	1	2	2	3
36 m	1	1	2	2	3	3
45 m	1	1	2	3	3	4
51 m	1	1	2	3	3	4
60 m	1	2	3	3	4	5

Recommended ERS in parallel given total travel distance and maximum load (for 1,6m/s)

1,6 m/s	800 kg	1000 kg	1600 kg	2000 kg	2500 kg	3000 kg
27 m	1	1	2	3	3	4
36 m	1	1	2	3	3	4
45 m	1	1	2	3	3	4
51 m	1	1	2	3	4	4
60 m	1	2	3	3	4	5



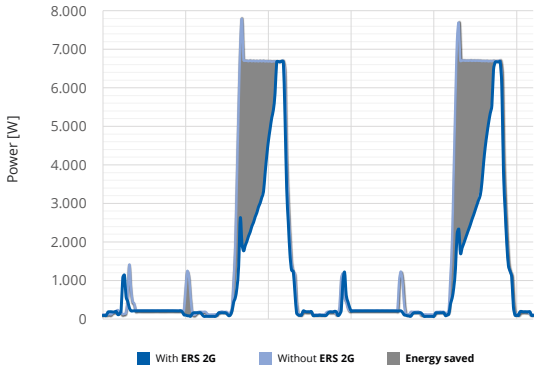
Stores in supercapacitors the energy wasted by the elevator when motor brakes to return it in the next consumption trip. The ERS saves braking resistor energy without any harmonic distortion, without additional standby energy usage, and with a simple two-wire connection.

The system is fully compatible with new and existing drives from all manufacturers. No energy is returned to the grid which avoids noise or harmonic distortion issues. Stand-by consumption is less than 3 watts.

The ERS 2G enhanced elevator's consumption savings are shown by the blue highlighted areas in the graph on the right (real measurements).

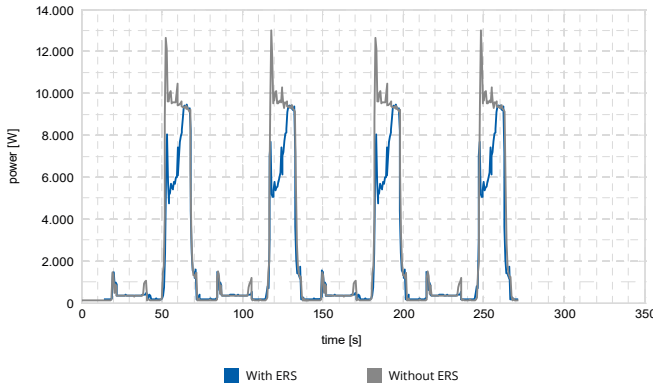
Supercapacitors are accumulators that require no maintenance or replacement.

Real time power profile P(t) with and without ERS



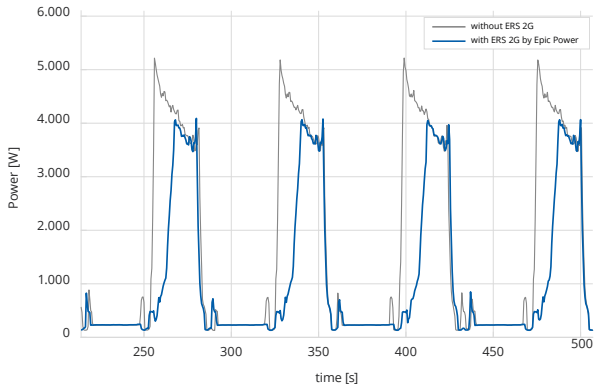
Case Study 1

Maximum Load [kg]	1600
Total travel distance [m]	20
Nominal speed [m/s]	1
VVVF drive	VACON



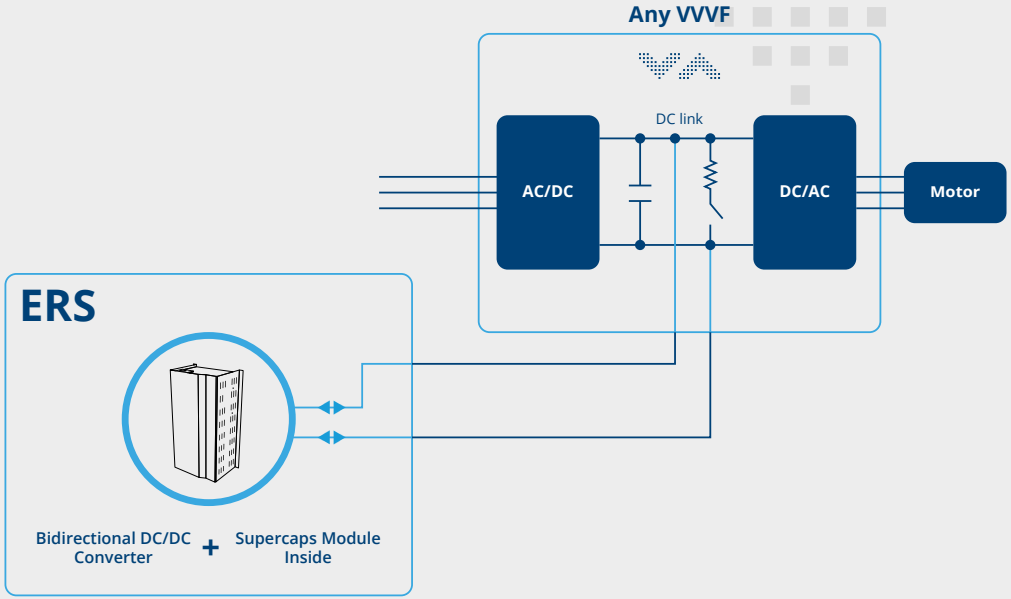
Case Study 2

Maximum Load [kg]	1000
Total travel distance [m]	35
Nominal speed [m/s]	1,6
VVVF drive	ARKEL



Case Study 3

Maximum Load [kg]	675
Total travel distance [m]	21
Nominal speed [m/s]	1,0
VVVF drive	KONE



Documentation	
Electrical connections (recommended)	
VVVF drive connections	
Dimensioning of the system	
Installation Manual	

	ERS 2G x 1	ERS 2G x 2	ERS 2G x n
Motor power	Up to 15kW	Up to 30kW	Up to 15kW x n
Stored energy	60.000Ws	120.000Ws	60.000Ws x n
Nominal power	6.300W	12.600W	6.300W x n
Efficiency	Up to 98%		
Standby	<2W		
Dimensions (Height x Width x Depth) (mm)	497x265x190		
Weight (kg)	13		
IP rating	IP2X		

ENERGY INTELLIGENCE
FOR LIFTS

epicpowerlifts.com

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Epic Power Converters, S.L.
+34 976 24 95 80 · Zaragoza (Spain)
info@epicpower.es