

# ERS

Energy Recovery  
System for lifts

Better than  
REGENERATIVE

## Top advantages\*

- > More efficient lift
- > Easy installation (<1hour)
- > Reduction of running costs
- > For new or existing lifts
- > Complies with all industry standards
- > 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 the braking resistor energy without any harmonic distortion. There is no added stand-by energy use through a simple two-wire connection.

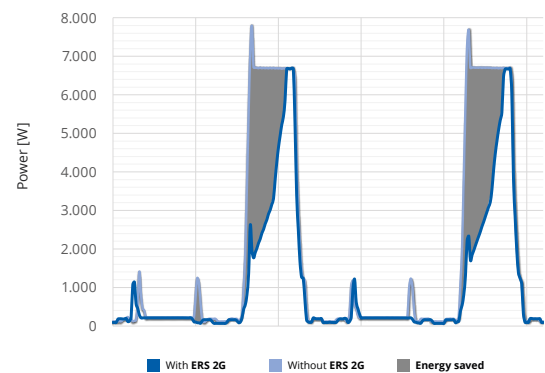
The system is fully compatible with new and existing drives from all manufacturers. No energy is returned to the grid which avoids

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**

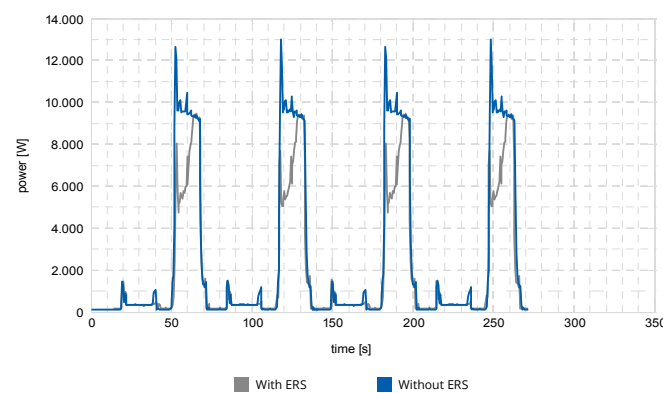


Maximum Load [kg] → 1600


Total travel distance [m] → 20

Nominal speed [m/s] → 1

VVVF drive → VACON



**Case Study 2**

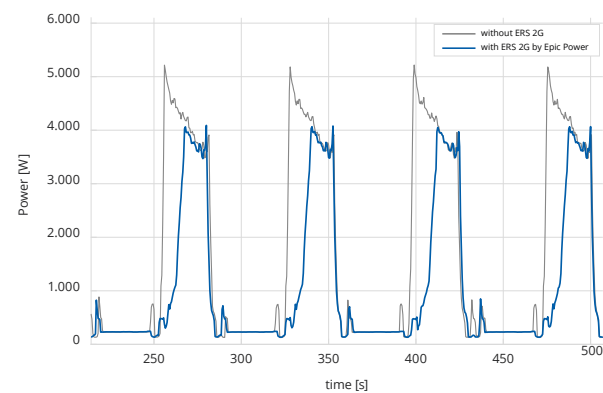


Maximum Load [kg] → 1000


Total travel distance [m] → 35

Nominal speed [m/s] → 1,6

VVVF drive → ARKEL



**Case Study 3**

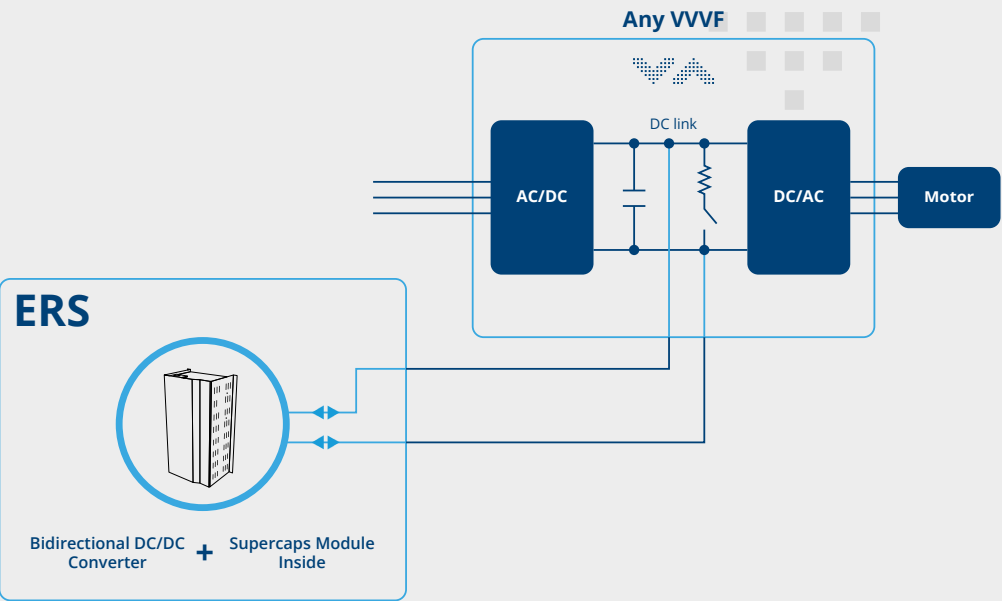


Maximum Load [kg] → 675





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



■ [epicpowerconverters.com](http://epicpowerconverters.com)



epic power

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