



S4 energy

KINEXT

ENERGY RECUPERATION

FOR CRANES

ADVANCED STORAGE TECHNOLOGY TO OPTIMIZE ENERGY GENERATION, TRANSPORTATION, DISTRIBUTION AND USE

KINEXT LIFTS ON-SITE ENERGY EFFICIENCY, CAPACITY & QUALITY

The KINEXT Energy Storage converts electricity into kinetic energy that can be stored from, or delivered to the on-site electricity network with an exceptionally fast response time. Peaks in electrical loads can be smoothed, while regenerated energy can be stored in KINEXT. This leads to significant energy savings and ensures a reduction in grid demand and use.

KINEXT ENERGY STORAGE

Technology	Flywheel
Capacity	30 kWh
Stand-By Loss	7 % per hour
Power Capacity	Modular, 0,1 – 1 MW
Cycle Efficiency	92 %
Response Time	< 20 ms
Lifetime	20 years/1.000.000+ cycles
Footprint	4 x 4 meters

APPLICATION EXAMPLE

- Hoisting a load demands a large peak power, that can be fully covered by KINEXT. A larger grid connection becomes unnecessary.
- On lowering a crane load, the resulting energy is stored in KINEXT. This energy is otherwise dissipated in load banks.
- The stored energy is reused to power the crane when hoisting the next load.
- This results in immediate and significant savings: lower grid demand or diesel consumption in diesel-electric cranes.
- The transition from a (partially) diesel-powered crane to a fully electric crane is now possible without the delays of waiting for a grid connection upgrade.

KINEXT uses proven flywheel technology to power scalable energy storage solutions that increase operational efficiency. Whether its primary application is peak shaving, increasing network stability and power quality, or UPS: KINEXT saves costs by optimizing the grid connection demand and efficiency, production uptime, equipment lifetime, residual energy recycling while integrating sustainable sources and limiting on-site emissions.

KINEXT can be installed in a matter of weeks.
Would you like to know more? Contact our team to discuss your application today.

Please call **+31 (0)10 742 0840** or visit

S4-ENERGY.COM

BENEFITS (650 kVA CRANE)

- No more diesel consumption.
- Annual savings of 500 tonnes CO₂ emissions.
- No more NOX emissions.
- No more maintenance and depreciation on gen-set.
- No reactive power feed to the grid.
- Annual savings up to 200.000 Euros.
- Return on Investment < 2 years.

