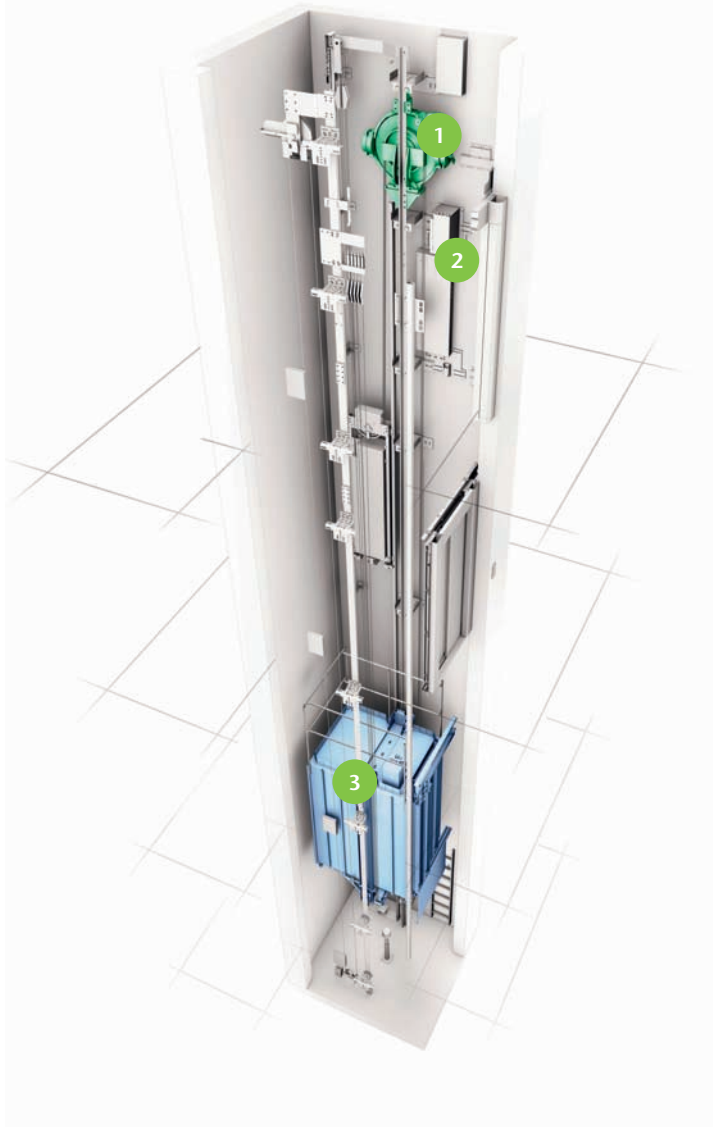


OPTIONS FOR ELEVATORS

KONE Eco-efficient™ Solutions

Elevators Go Eco-efficient

The power behind our eco-efficient solutions is the KONE EcoDisc® hoisting machine, which can save half or more of the energy consumed by an elevator. Our solutions not only save energy when the elevator is moving, but also provide low standby energy consumption when the elevator is standing still. Working together, these solutions can save as much as three-quarters of the elevator's total energy consumption. Over the lifetime of the equipment, the energy savings can amount to more than the original cost of the elevator.



Key benefits

1. KONE EcoDisc*

- Permanent-magnet synchronous hoisting machine
- Consumes 70% less energy than a hydraulic drive and 50% less than a traction 2-speed drive
- Due to variable frequency drives used in our solutions, the peak starting current is 30–40% that of equivalent hydraulic and traction units, reducing energy consumption and size of fuses
- Thin and lightweight, requires less raw material and space compared to traditional hoisting machines
- Energy saving:
 - 7500 to 12,000 kW/Hrs per year (empirical energy data)
 - 2000 kWh/year compared to traction 2-speed elevator
- Carbon footprint reduction: (based on OECD electrical energy mix)**
 - 4938 lb (2240 kg) CO₂/year compared to hydraulic elevator
 - 2469 lb (1120 kg) CO₂/year compared to traction 2-speed elevator

2. Regenerative System***

- Recovers excess energy from the elevator when the KONE EcoDisc motor acts as a generator
- This most notably occurs with an empty car traveling UP or a full car traveling DOWN
- Can recover up to 25% of the total energy used by an elevator
- Produces clean and safe energy that does not damage the network
- Carbon footprint reduction: 14,109 lb (6400 kg) CO₂/year compared to a non-regenerative drive

3. Halogen-free Cables

- Plastics used in cables for electrification do not contain halogens
- In case of fire they do not produce toxic gas and do not release corrosive acids

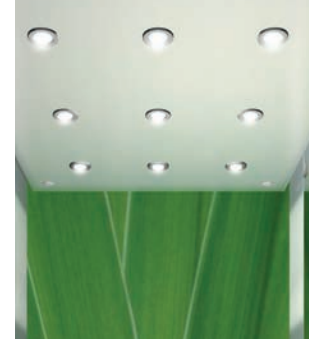


Signalization Dimming

- Standby mode for signalization: 15 minutes after the last call, signalization automatically starts switching to standby mode
- Can reduce the energy consumption of signalization by up to 30%
- Energy savings: up to 20 kWh/year
- Carbon footprint reduction: 22 lb (10 kg) CO₂/year

LED Lights

- Last up to 10 times longer than halogen lights
- Reduce energy consumption by up to 80%
- Energy saving: 560 kWh/year
- Carbon footprint reduction: 595 lb (270 kg) CO₂/year compared to halogen spotlights



Solar-powered Lighting

- The car ceiling LED lights' energy consumption can be taken "off-grid" by enabling the use of solar energy
- KONE supplies a kit that connects the car light supply to a small stand-alone solar panel system
- A specialized supplier provides the solar panel system, including: charge regulator, solar panels and a battery
- Energy savings: 140 kWh/year
- Carbon footprint reduction: 154 lb (70 kg) CO₂/year



Corridor Illumination Control

- Automatically illuminates the floor where the car is stopping
- Reduces overall energy consumption in the building
- Energy savings: depends on application



Car Light / Fan Saving Mode

- Standby mode for the light and fan: after the last call and after a predetermined time, car light and fan switch off automatically
- Reduces heat in car and the amount of cooling needed in warm climates
- When the elevator is used again, the car light is automatically switched "on"
- Energy savings: up to 350 kWh/year
- Carbon footprint reduction: 375 lb (170 kg) CO₂/year

Destination Control

The KONE Polaris™ destination control system saves energy by optimizing traffic. An elevator group using KONE Polaris requires less transportation devices compared to one using a conventional control system.

- Elevators can serve more people and more floors in a building
- Energy savings: fewer or smaller elevators can be used, which reduces the energy consumption of the building



* The basis for the calculations for EcoDisc is: an elevator speed of 3.3 ft/s (1.0 m/s) (0.63 for hydraulic), a load of 1389 lb (630 kg) (8 persons) and 200,000 starts/year.

** The average OECD electrical energy mix is defined as 13% gas, 16% hydro, 23% nuclear, 7% oil, 33% stone coal, 6% lignite coal, 1.5% bio mass & waste and 0.5% other.

*** The basis for the calculations for regenerative systems is: an elevator speed of 11.5 ft/s (3.5 m/s), load of 3527 lb (1600 kg), travel distance of 492 ft (150 m), and 600,000 starts/year.

U.S. Operations Center

One KONE Court
Moline, Illinois 61265
1-800-956-KONE (5663)

Canadian Operations Center

80 Horner Avenue
Toronto, Ontario M8Z 4X8
1-416-252-6151

KONE Mexico, S.A. de C.V.

Clavel 227
Colonia Atlampa
Mexico City, D.F. 06450
+52.55.1946.0100

For the latest product information and interactive design tools, visit www.us.kone.com

KONE and EcoDisc are registered trademarks of KONE Inc.

Dedicated to People Flow, Eco-efficient and Polaris are trademarks of KONE Inc.

"USGBC" and related logo is a trademark owned by the U.S. Green Building Council and is used by permission.

©2010 KONE Inc.
SF2872 REV1210
Printed in U.S.A.



This document is printed using soy-based inks.

For more information go to www.us.KONE.com