

Schindler AC Regeneration Module

Saves energy. Saves money.



The Green LED indicator on the module provides an easy to recognize indication that the Schindler AC Regeneration Module is saving you money.

The Schindler AC Regeneration Module is a high performance line regeneration unit for elevator applications. When applied to an existing ACVF brake resistor drive, it saves energy by taking the excess regenerative energy from the motor and returning it to the AC power source. Additionally, the brake resistors generate less heat, reducing the need to cool the machine room, providing further savings.

Design features

- Power factor: greater than 0.9
- Efficiency: 95 percent
- External and internal display indicators: show the mode of operation and the regenerative current level
- Fuse protection: AC Line and DC Buss
- Current limit: 100 percent DC rating, inverse time overload trip
- Disable function: unit turns off if e-power generator is in use.

Benefits

- Efficient installation: minimal downtime
- Energy savings: recover the power that is usually lost as heat and send it back to the power line
- Lower cooling costs: reduced need for air conditioning
- Generator-friendly: the system will not impact the operation of emergency power generators
- Rebates: may qualify for state/local rebate programs.

KT

Kits

AC

Accessories

CW

Counter-

weights

SA

Safeties

FI

Fixtures

CA

Cars

DO

Doors

MM

Mechanical

material

CO

Controls

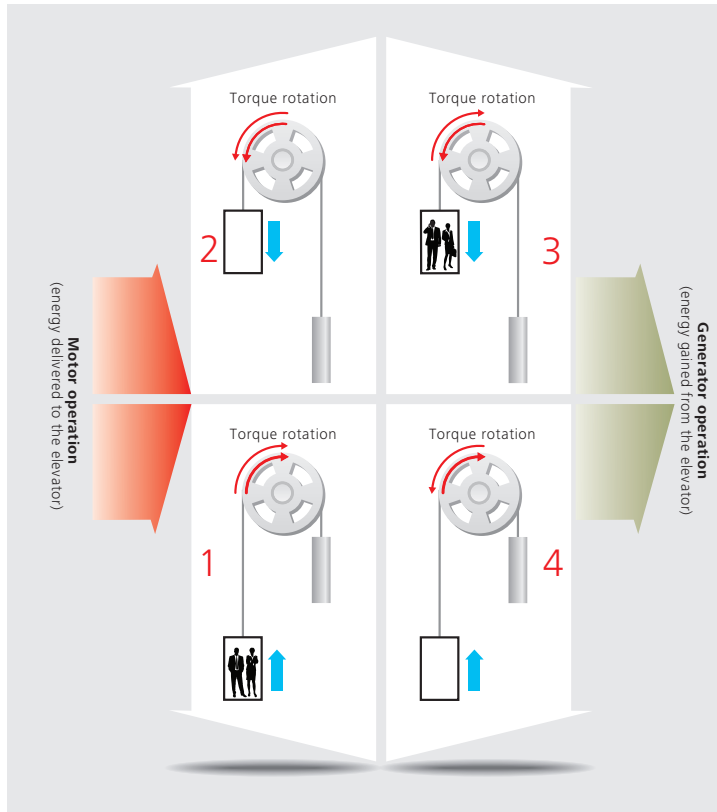
DR

Drives



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Operating modes of an elevator

1. Passengers ascending. This is a conventional motor-driven operation, with both torque and rotation in the same direction.
2. Empty cab descending. This is also motor-driven operation.
3. Passengers descending. The cab is heavier than the counterweight. Motor acts as an electric brake and regenerates electricity.
4. Empty cab ascending. The cab is now lighter than the counterweight. Motor again acts as a brake and regenerates electricity.

A green alternative to brake resistor drive systems.

A typical geared elevator control and drive system uses a Variable Frequency AC Brake Resistor Drive. This technology takes energy that is regenerated back to the drive system (during generator operation) and dissipates it in braking resistors built into the drive module. The energy is then exhausted into the machine room in the form of heat.

Schindler's AC Regeneration Module provides a cost-effective technology that can recover this generated energy without changing the existing equipment. When the module is applied to the existing system, the dynamic braking resistors are no longer needed to dissipate this energy. This energy is instead channeled back into the incoming power line where it can be used by other equipment.

Owners can realize energy and cost savings in powering the elevators, and in cooling the elevator machine room.

Options

- Digital power meters: monitor consumed and regenerative power from each unit.
- Digital display: interfaced to a central graphical display to monitor overall performance.

The application of the AC Regeneration Module does not impact any of the functionality or ride quality of the existing elevator system. In fact, during emergency power conditions the module will shut down and the system will operate as it did before the upgrade. This ensures that the existing generator will not be required to handle any of the recovered energy.

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Schindler is a member organization of the U.S. Green Building Council.



Schindler has received renewal to ISO 14001:2004 and ISO 9001:2008 certificates.



Schindler prints with vegetable-based ink on paper containing post-consumer waste fiber.

