O-18	Keywords	Y3	equipment or facility	Z4	electricity	E29	electrical machinery
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Mitsubishi Electric Building Solutions Corporation

Machine Room-Less Elevator

Features

- The "NEXIEZ-MRL Version2" went on sale in October 2021 for overseas markets and is an elevator that requires no elevator machine room. Offering improved operational efficiency, this model also features countermeasures against viruses sought in this age of the new normal, with added functionality to work in collaboration with robots and building facilities.
- Energy saving and long-lasting LED lights have been adopted for the elevator cage.
- Stand-by mode reduces power consumption when the elevator is not in use.
- Regenerative converters (optional feature provided at additional cost) supplement a building's power supply.
- * This description applies to the machine room-less "NEXIEZ-MRL Version2" elevator, destined for overseas markets.



Elevator car



Hall

Basic Concept or Summary

(1) LED lighting (Figure 1)

LED light sources are used for ceiling lights, hall lanterns, and backlights for LCD indicator. Approximately 75% reduction in power consumption is expected, compared to conventional fluorescent lamps.

* This applies to cages with the CL2 ceiling specifications



Figure 1

(2) Standby power reduction

The elevator automatically enters stand-by mode when it is not used for a specified time. Further energy savings are also realized by shortening the transition time to automatic stand-by mode.

(3) Regenerative converter (Figure 2)

Elevator cars typically move up and down using the driving force of the traction machine. However, when cars travel down with a heavy cage weight, or up with a light cage weight (regenerative operation), the traction machine functions as a power generator. Although the power generated during traction machine operation is usually dissipated as heat, the regenerative converter transmits the power back to the distribution transformer which feeds into the electrical power network of the building, along with electricity from the power supply, enabling it to be effectively used as a supplementary power source for lighting, air conditioning, and other devices.



Effects or Remarks

- Energy consumption is reduced by approximately 75% using LED lights, compared with the use of conventional fluorescent lamps (this applies to cages with the CL2 ceiling specifications)
- Energy consumption is reduced by approximately 35% with the implementation of the regenerative converter when compared with the non-use of a regenerative converter (this effect may vary, depending on conditions of use and building specifications).

Installation in	Practice or Schedule	
Domestic	AXIEZ-LINKs	Sales launched in October 2020
Overseas	NEXIEZ-MRL Version2	Sales launched in October 2021

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