Mitsubishi Electric Launches NEXIEZ-MRL Version2 Elevator

New door system improves operating efficiency and deploys antivirus solutions help ensure passenger safety

TOKYO, October 25, 2021 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today the launch of the NEXIEZ-MRL Version2 elevator, featuring more advanced specifications than the NEXIEZ-MRL model, the company’s mainstay machine room-less elevator in overseas markets. In addition to operating more efficiently, the new model will help improve passenger safety, comfort and convenience by providing antivirus solutions that meet the demands of the “new normal.” Sales will commence on October 29, and the company is targeting orders of 5,000 units per year in overseas markets.

Main Features

1) **New door system boosts operational efficiency**
   - Quick-motion Door System shortens door opening and closing times, increasing transport efficiency by approximately 12%\(^1\) and cutting average waiting time by around 14%\(^1\).
   - Quick Closing System with Sensor shortens door opening time when it detects no passengers in the elevator hall. The average waiting time is reduced by approximately 24%\(^1\) in combination with the Quick-motion Door System.

\(^1\) Compared to the previous NEXIEZ-MRL elevator. Simulated with 2 cars with 13 persons each at 1.0m/sec and 4 stops. Transport efficiency is simulated in 5 minutes.

2) **Antivirus solutions for passenger safety and comfort**
   - The new elevators feature clean solutions such as circulation fans equipped with Plasma Quad\(^\text{TM}\)\(^2\), and antiviral and antibacterial buttons help ensure passenger safety and a comfortable ride.
- Passengers can call an elevator remotely and select their destination floor using their smartphone, providing reassuring “no-touch” transportation.

2 Mitsubishi Electric original technology. An electric field/discharge suppresses contaminants in the air, such as viruses, bacteria and pollen.

3) Allows use by mobile robots and features four new designs, enhancing property value

- The new models are designed to allow use of the elevators by robots for operations such as building security, cleaning and transportation, and can be integrated into the building management systems of various manufacturers, contributing to labor saving and building operation efficiency.
- Four new styles of car design based on the results of global market research – "LUXURY", "NATURAL", "COMFORT", and "MODERN" – create a comfortable environment for passengers.
- Design variations include operating panels and hall buttons based around the color black, and luxury textured faceplates.

Sales Details

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Usage</th>
<th>Capacity</th>
<th>Speed</th>
<th>Price</th>
<th>Manufacturing Location</th>
<th>Launch</th>
<th>Targeted Annual Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEXIEZ-MRL</td>
<td>Passenger</td>
<td>450 to 1,000kg</td>
<td>1.0m/s ~ 1.75m/s</td>
<td>By quote</td>
<td>Thailand</td>
<td>October 29, 2021</td>
<td>5,000 units</td>
</tr>
</tbody>
</table>

Background

Elevators play an important role in vertical transportation, and Mitsubishi Electric has developed models that improve passenger safety, comfort, and operational efficiency. With elevator safety requirements increasing year by year, it is necessary to create new value by integrating their operation with building facilities and through the use of antivirus solutions.

The company has expanded the specifications of its mainstay machine room-less elevator model, the NEXIEZ-MRL, with the new Version2. In addition to functionality that allows the deployment of robots and integration with building facility management, its improved operational efficiency and range of anti-virus solutions will improve passenger safety, security and comfort, while helping to increase the value of the buildings they are installed in.

Detailed Features

1) New door system boosts operational efficiency

(1) Quick-motion Door System (Standard)
An optimized door design shortens opening and closing times, resulting in smoother transport and improved operational efficiency.

(2) Quick Closing System with Sensor (Optional)
When the sensor installed above the car doors detects no passengers in the elevator hall, the doors close after a shorter amount of time than usual.
2) Antivirus solutions for passenger safety and comfort

(1) Circulation Fan with Plasma Quad™ (Optional)

By creating a discharge area in an electric field, the device captures airborne contaminants in the car, such as viruses, bacteria and pollen.\(^4\) Microparticles (PM 2.5) and odors are also filtered out,\(^5\) keeping the air in the car fresh at all times.\(^6\)

\(^4\) Virus reduction: Tested with one type of virus in a 25m\(^3\) space. Circulation fan with Plasma Quad™ reduced virus count by 99% in 408 minutes.

Bacteria reduction: Tested with one type of bacteria in a 25m\(^3\) space. Circulation fan with Plasma Quad™ reduced bacteria levels by 99% in 388 minutes.

Pollen reduction: Tested with one type of pollen in a 25m\(^3\) space. Circulation fan with Plasma Quad™ reduced pollen concentration by 88%.

\(^5\) PM2.5 removal: Tested with PM2.5 in a 27.5m\(^3\) space. Circulation Fan with Plasma Quad™ (air flow: 40m\(^3\)/h) removed 99% of particles in 370 minutes.

\(^6\) Deodorization: Tested with acetaldehyde in a 4.4 m\(^3\) space. Circulation fan with Plasma Quad™ reduced odor levels by 99% in 44 minutes.

![Image of Plasma Quad™](Image of Plasma Quad™)

(2) Antiviral and antibacterial surfaces (Optional)

Antiviral and antibacterial coating or film may be applied to car and hall buttons frequently touched by passengers, thus inhibiting the growth of viruses and bacteria.\(^7\)

\(^7\) Antiviral film: Tested with 4cm x 4cm specimen in test vessel; it neutralized 99.9% of viruses and inhibited bacterial growth by 99.9% in 24 hours.

Antiviral coating: Tested with 5cm x 5cm specimen in test vessel; it neutralized 99.9% of viruses and inhibited bacterial growth by 99.9% in 24 hours.

Availability of antiviral and antibacterial options dependent on individual country regulations.

(3) Elevator Call System with Smartphone (Optional)

Using the ELCS-SP\(^8\) board, users can call an elevator remotely by accessing a dedicated website via their smartphones. By eliminating the need for them to touch buttons in the elevator lobby or car, the system meets the need for reduced contact between people and helps improve user convenience and comfort.

\(^8\) An interface board which can be connected to a web server and access control system via a smartphone by serial communication.

3) Allows use by mobile robots and features four new designs, enhancing property value

(1) Coordination with mobile robots (Optional)

Integration of the elevator operation with the deployment of mobile robots via the ELSGW board\(^9\) allows a mobile robot to automatically call an elevator, board the car and move between floors. This level of sophisticated coordination between elevators and mobile robots allows social distancing to be maintained and helps reduce the need for manpower in buildings.

\(^9\) An interface board that can be connected to security gates and access the control systems of card readers by serial communication.
(2) Coordination with building management systems (Optional)

Elevators can be easily connected to building management systems via serial communication using the BMS-GW board, making it easier to monitor elevator operational status.

(3) New car designs

The four new car designs are based on the results of architectural research and interviews with architects conducted in 13 regions in 11 countries around the world. They incorporate the latest design concepts, including surface materials and paint colors that differ from domestic products, improving architectural affinity and continuity.

**LUXURY**
An air of sophistication is created not by decorative elements but by a rich surface finish. An elegant space produced by an exquisite combination of muted colors and different materials.

**COMFORT**
A minimalistic design that produces a comfortable and warm impression. A bright ceiling creates a feeling of reassuring comfort.

**NATURAL**
A natural style emphasizing the soft texture of wood. Produces a natural feeling that is unaffected by the trends of the times.

**MODERN**
A beautiful urban style created by noiseless, simple lines. The modern and solid space exudes an air of refinement.

**Contribution to the Environment**

Total power consumption of the building is reduced through the use of gearless hoisting machines powered by permanent magnet motors, and by the provision of LED lightning in the cars.

*Plasma Quad™ is a trademark of Mitsubishi Electric Corporation (except in certain regions).*

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**About Mitsubishi Electric Corporation**

With 100 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Mitsubishi Electric enriches society with technology in the spirit of its “Changes for the Better.” The company recorded a revenue of ¥4,191.4 billion yen (U.S.$ 37.8 billion*) in the fiscal year ended March 31, 2021. For more information, please visit [www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)

*U.S. dollar amounts are translated from yen at the rate of ¥111=U.S.$1, the approximate rate on the Tokyo Foreign Exchange Market on March 31, 2021*