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Inventing "Variable Voltage" function, Mitsubishi Electric undertakes prestigious elevator systems projects

HIGH SPEED ELEVATOR TECHNOLOGY MEETS ENERGY EFFICIENCY

Globally recognized for its high technology, Mitsubishi Electric develops high-speed, comfortable and safe elevators with high energy efficiency. Mitsubishi Electric elevators, preferred for various prestigious projects in Turkey, also provide added value to significant projects throughout the world. Having developed an elevator technology for a 70-storey skyscraper in Yokohama making the ride so smooth that a coin set on its edge would not topple 23 years ago, the company currently makes preparations to deliver elevators to LCT Landmark Tower project that shall be the fastest elevators in South Korea. Furthermore, it has developed the "Variable Voltage" function which reduces carbon footprint in production and provides significant energy saving through various advantages such as setting the elevator speed according to the internal load, recycling thermal energy to be resupplied to the electric network of the building, switching to stand-by mode automatically when there are no calls or the traffic is reduced.

Recognized as a leading global "technology" brand in various businesses, Mitsubishi Electric also creates difference in elevator business. Contracted for delivering elevators for several distinguished projects in Turkey including but not limited to Quasar Istanbul – Fairmont Hotel Istanbul, Rönesans Tower Ataşehir, Tema İstanbul, Bursa Hilton Oteli, Çırağan Palace By Kempinski, Vadistanbul Bulvar and Park Etapları, Mitsubishi Electric also introduces significant innovations for renowned projects in the world. Having developed an elevator technology for a 70-storey skyscraper in Yokohama making the ride so smooth that a coin set on its edge would not topple in 1993, Mitsubishi Electric currently makes preparations to deliver South Korea's fastest elevators in LCT Landmark Tower, Busan.

The company shall deliver elevators capable of ascending 600 metres per minute for LTC Landmark Tower which shall be completed in 2019, making it possible for passengers to ascend to the 100th floor in 52 seconds. The 383.5 metres of travel shall be the longest distance covered by any elevator in South Korea. Superior riding comfort, silence and safety shall be ensured by Mitsubishi Electric's cutting-edge innovations for ultra-high speed elevators, such as advanced drive and control equipment, streamlined aerodynamic car covers, active roller guides and various safety devices.

Reduces carbon footprint

Mitsubishi Electric, with its high technology, is distinguished for not only high speed but also comfort, safety and high energy efficiency of its elevators. Embracing the spirit of its environmental statement, "Eco Changes", Mitsubishi Electric acts with environmental awareness in all phases from the production to the installation of the elevators as in all the other operations. Reducing the carbon footprint arising from manufacturing operations, Mitsubishi Electric elevators provide high energy efficiency by switching to stand-by mode automatically whenever there are no calls or the traffic is low at the building in order to turn off the lights and fans of the cars automatically in addition to using LED lightning in all cars. Besides, state-of-the-art group control systems are used for responding to the call with the closest car to minimize energy consumption. Thus, the elevator traffic is affected from the traffic as little as possible in addition to providing energy efficiency.

Speed adjustment based on internal load

A technology specific to Mitsubishi Electric elevators, "Variable Voltage" function has been invented by Mitsubishi Electric in order to adjust the elevator speed according to the internal load. This high technology creates significant energy saving in that it enables the elevators to carry 1-3 passengers in a car for 10 (800 kg) at a speed of 1.6 metres per second, ascend to 2.5 metres per second when there are 4-6 passengers and turn back to the speed of 1.6 metres per second while carrying 7-10 passengers. Thus, this option not only ensures energy efficiency but also contributes to reducing the traffic.

Reduces carbon dioxide emissions

A special system generates electric power as the elevator car descends with passengers or ascends without passengers to resupply that power to the electric network of the building. The optional "Regeneration" function provides energy saving up to 35 per cent while reducing carbon dioxide emissions by approximately 1,400 kg per year.

Saves both space and energy

Mitsubishi Electric uses "Gearless Traction Machine with Permanent Magnet" in all elevator systems to minimize lubrication requirement. That, in turn, contributes to reducing the size of traction machine leading to saving both space and energy.

Comfortable and silent travel

Having invented "Variable Voltage Variable Frequency" technology for elevator propulsion systems, Mitsubishi Electric benefits from this technology for main propulsion engines and cover engines of elevators as well. Thus, it minimizes noise and concussion to provide high quality, comfortable and silent travel.

About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation 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. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavours to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,394.3 billion yen (US\$ 38.8 billion*) in the fiscal year ended March 31, 2016. For more information visit: www.MitsubishiElectric.com

* At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016.

About Mitsubishi Electric Turkey Operations

Mitsubishi Electric concentrates on sales and after-sales services for HVAC systems, factory automation systems, CNC-Mechatronics systems and advanced robot technologies in Turkey. In addition, the

company provides support for satellite, elevator, visual data systems, power sources and transportation-based infrastructure projects. Mitsubishi Electric, the acknowledged manufacturer of Turksat 4A and 4B satellites contributing to communication and broadcasting infrastructure of Turkey and neighbouring countries, is also recognized for the automation technology used for Marmaray project. Having incorporated a company for development and manufacturing of room air-conditioners in Turkey in April 2016, Mitsubishi Electric intends to start manufacturing operations in Manisa plant by January 2018. For more information visit: www.mitsubishielectric.com.tr

About Mitsubishi Electric's Elevator and Escalator Business

Mitsubishi Electric develops high speed, comfortable and safe elevators with high energy efficiency thanks to its high technology. The manufacturer of the sole spiral escalator in the world, Mitsubishi Electric is also a recognized world leader in vertical transportation business. The brand manufacturers a wide range of products from standard models to spiral escalators. Offering high tech services in various countries globally, Mitsubishi Electric has also developed the world's fastest elevators (20.5 m per second) for 632 m high Shanghai Tower project in China.