



## Media Inquiries:

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Mitsubishi Electric iQ-R Series to reduce costs and increase efficiency

# Mitsubishi Electric introduces its new generation automation platform

Mitsubishi Electric's iQ-R series, the PLC of the future developed through the global expertise and experience of the corporation on manufacturing operations, is distinguished as the new generation member of iQ Platform structure combining all automation components in a single platform. As a high added value for factories, iQ-R Series provides a readymade platform for e-F@ctory, Mitsubishi Electric's response to Industry 4.0. Developed out of the need for resolving challenges the users face with productivity, engineering, maintenance, quality, connectivity and compatibility matters, the series provides a number of advantages including cost reduction, high productivity, reliability and reusability.

Mitsubishi Electric iQ Platform, known for reducing the costs and engineering times that might be created by any given product in its entire automation lifecycle, increasing productivity and facilitating access to information on site, minimizes the total cost of ownership (TCO) during the initial investment process. Paving the way for the creation of e-F@ctory platform as Mitsubishi Electric's response to Industry 4.0, iQ Automation Platform is also a unique product family that combines all the important automation components in a single structure. The most recent offspring of this family is iQ-R series, the PLC of the future.

## Developed from scratch to resolve problems

Mitsubishi Electric's adjustable, robust control platform iQ Platform ensures full integration between production line operations and management functions so as to enable corporations to adopt a strategic approach to automation and control issues. As the newest generation of iQ Platform structure, iQ-R Series provides high added value by offering new generation automation environment to factories.



iQ-R series provides high cost efficiency in terms of hardware operations in that it makes it possible to conduct operations with a single CPU as opposed to the prior technologies which used to require multiple CPUs. iQ-R series introduces a highly innovative method to make sure that users benefit from updates by merely upgrading software instead of hardware according to which it reduces improvement and maintenance costs while minimizing system breakdown risks. As an automation controller guaranteeing productivity increase by setting new criteria for performance standards, iQ-R series boasts of 0,14 milliseconds scanning time, operating capacity up to 419 commands per millisecond and 0,98 nanoseconds LD command speed.

#### High performance automation systems

Mitsubishi Electric iQ-R series provides operating performance and synchronization capability compatible with the criteria even under the most challenging environments. Furthermore, integration of successive control, motion control and safety control on a single rear panel reinforces the performance of iQ Platform. Designed for contributing to the manufacturing and operational performance of users, iQ-R series is ideal for creating well-developed automation systems providing better performance with cost effective constant manufacturing processes.

## Increasing production quality by preventing delays in transfer

New generation iQ-R series offers synchronized PLC and network scanning to prevent delays in transfer and increase production quality. In addition, all output modules are synchronized for more precise control to eliminate the need for positioning sensors and reduce total system costs.

# Safe data storage prevents suspension of system

Mitsubishi Electric iQ-R series is capable of creating back-up of all PLC system data including parameters and CC-link IE Field network equipment as well as reloading them. Therefore, it becomes possible to prevent suspension of the entire automation system when the network collapses or communication with PC database server is halted. Important production details such as recipes are stored in iQ-R internal database.

## Reducing maintenance needs

Mitsubishi Electric iQ-R series which embodies a number of attributes and functions that lead to reduction in maintenance needs and costs makes it possible to define the errors and incidents which are stored in the internal SD Card automatically. In case of an error, PLC keeps all the relevant process details, errors and incident records including operational records of SD card. Those data remain at hand to be analysed easily at any time thereafter. Thus, the need for maintenance operations leading to system interruptions is reduced.



## Uninterrupted equipment connectivity

When iQ-R series is connected to other equipment over CC-Link IE, CC-Link IE Field or Ethernet, users may benefit from "Mitsubishi Electric Seamless Message Protocol" (SLMP) system to monitor any equipment available at any location in the network and collect data from the relevant equipment. Thus, the need for developing codes for communication structure is eliminated and the users can communicate simply by selecting the communication protocol and labels to activate PLC and connected equipment.

#### System safety increased

Another feature of Mitsubishi Electric iQ-R series is that it is necessary to insert a hardware safety key inside the CPU. The CPU module cannot be activated without those keys and the fact that the data available in the keys are encrypted to prevent third parties from copying them further increases the system safety. Besides, it is possible to define the IP addresses of the authorized equipment on the system to restrict access to the equipment so that risks of computer hacking or modification of PLC programmes by unauthorized employees are minimized.

#### 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: <a href="https://www.MitsubishiElectric.com">www.MitsubishiElectric.com</a>

\* 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: <a href="https://www.mitsubishielectric.com.tr">www.mitsubishielectric.com.tr</a>

#### About Mitsubishi Electric Turkey Factory Automation Systems

Mitsubishi Electric Turkey Factory Automation Systems division provides added value to leading industrial corporations in Turkey in a range of fields including automotive, foodstuff, packaging, metal and PVC processing machinery in terms of fast integration, efficiency, flexibility and productivity. It has adapted to "Industry 4.0", the new industrial phase, with its digital factory platform known as e-F@ctory.