

FACTORY AUTOMATION

MELSERVO MR-J5 ETHERCAT

Perfect Match: Mitsubishi Electric Servo Motion and EtherCAT



// Safety over EtherCAT with FSoE

// Easily integrates into existing systems

// Top performance: compact & flexible

TOP PERFORMANCE IN ETHERCAT NETWORKS

Discover the globally proven MELSERVO MR-J5 servo amplifiers from Mitsubishi Electric, which have established themselves across a wide range of industries including mechanical engineering and fully automated production systems. Thanks to advanced EtherCAT technology, our single- and multi-axis systems deliver top performance in terms of speed while maintaining a compact design. Naturally, they comply with international standards and carry the CE mark.

Our MR-J5 series, built on innovative EtherCAT technology, responds to a wide range of commands—such as speed changes or position shifts—with lightning-fast precision thanks to an impressive speed/frequency response of 3.5 kHz. This level of

responsiveness is crucial for your system's performance, accuracy, and reaction speed. Our enhanced real-time tuning features, supported by EtherCAT, ensure a fast and simple commissioning process.

The MR-J5 series models are currently available with output capacities of up to 25 kW.

Thanks to EtherCAT technology, our N1 models also offer additional benefits, including support for Safety over EtherCAT and FSoE. This allows for more flexible and simplified system setup.



MR-J5-G-__N1 (NETWORK-COMPATIBLE WITH ETHERCAT)

With the N1 specification of the network-compatible amplifiers, you can utilize safety functions via your EtherCAT network. The device supports specific protocols such as FSoE, FoE, CoE, and EoE, allowing you to integrate both safety and non-safety communication within a single network.



Online auto-tuning for the shortest commissioning times

Dual- and triple-axis amplifiers / controllers for control cabinet installation

Class-leading moment of inertia for compact design and maximum performance

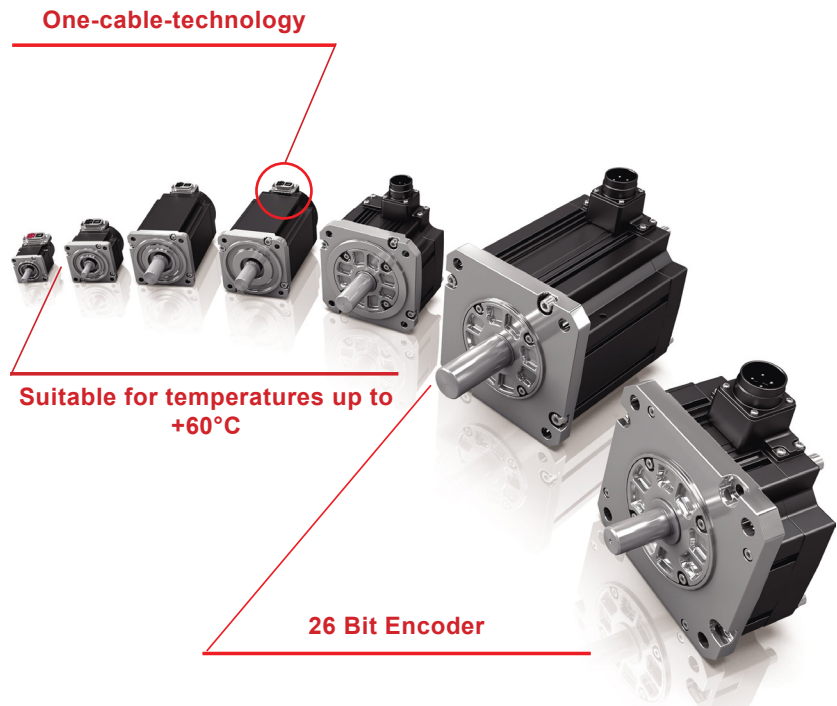
TOP PERFORMANCE IN ETHERCAT NETWORKS

HK series servo motors

Discover our groundbreaking servo motors, which combine exceptional power and compactness thanks to innovative and patented winding technologies – all while minimizing the use of rare earth elements. Equipped with an integrated battery-free absolute encoder, they offer ultra-high resolution of 26-bit, equivalent to 67,108,864 pulses per revolution.

Our wide range of servo motors from 50W to 22kW perfectly covers a wide variety of applications. In addition, the rotational speed in our new motor series has been increased by up to 67%, reaching up to 10,000 rpm.

Furthermore, the servo motors can be operated with both 200 V and 400 V amplifiers, allowing for greater flexibility in application design.



HK-KT SERIES

The series is particularly well-suited for applications with higher moments of inertia as well as those with increased frictional torque. Its advantages become especially apparent in conveyor systems, food processing machinery, and X-Y tables.

// Power rating: 0.05kW – 2kW

HK-MT SERIES

Designed with a low moment of inertia, this series is especially suited for highly dynamic positioning tasks with short cycle times. Its strengths come into play particularly in pick-and-place machines, assembly equipment, and welding automation systems.

// Power rating: 0.05kW – 1kW

HK-ST SERIES

With a medium moment of inertia, stable system configurations can be achieved across a wide range of speeds – from low to high. This all-rounder can be directly coupled to a ball screw and is suitable for a wide variety of applications, including winders and tension controllers, loading and unloading devices, conveyor systems, and many more.

// Power rating: 0.5kW – 7kW

HK-RT SERIES

Featuring a low inertia and compact design, this series has been specifically developed for positioning tasks with extremely short cycle times. Typical applications include roll-to-roll processes as well as loading and unloading stations.

// Power rating: 1kW – 7kW

HK-JT-SERIES

With a medium moment of inertia, this servo motor offers a rated speed of 1500 rpm and reaches up to 3000 rpm. It is ideal for larger machine axes or applications with slightly higher load inertia that still require quick responsiveness. Designed for a well-balanced ratio between inertia and motor size, it is perfectly suited for dynamic and demanding applications.

// Power rating: 7kW – 22kW

Contact

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More information



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Mitsubishi Electric's e-F@ctory concept leverages both FA and IT technologies to reduce overall costs in development, production, and maintenance — with the goal of enabling manufacturing that stays “one step ahead of the times.” It is supported by e-F@ctory Alliance partners who provide software, devices, and system integration, creating an optimal e-F@ctory architecture tailored to the needs and investment plans of end users.



Automating the World

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