

Automating the World

FACTORY AUTOMATION

MITSUBISHI ELECTRIC INDUSTRIAL/COLLABORATIVE ROBOTS MELFA PRODUCT LINES



MELFA FR series FR PLUS^{*1}



Scan for more information

"MELFA High Drive function" and supports a wider range of applications with "expanded force sensor lineup" With these features, MELFA FR series FR PLUS flexibly meets the need of each customer's manufacturing processes and contributes to high productivity and quality.

MELFA FR series FR PLUS offers reduced positioning time and improved trajectory accuracy with the

MELFA High Drive function

Reduced positioning time

The vibrations that occur during positioning can be suppressed by using Mitsubishi Electric's unique vibration control algorithm. This enables a 30 %⁻² reduction of the positioning settling time, improving the cycle time. The improved cycle time leads to improved productivity.



MELFA High Drive OFF



ON

High-accuracy trajectory control

The trajectory accuracy is improved with trajectory compensation control. Setup adjustment has become easier since the trajectory fluctuation due to the speed and position less occurs. Furthermore, this function improves work quality, such as sealing process.



Trajectory error occurs in accordance with the speed.

MELFA High Drive OFF High trajectory accuracy is achieved regardless of the speed.

MELFA High Drive





Expanded force sensor lineup*3

With the collaboration of our robot software technology and the partner companies, a wider range of applications is supported to meet the need of each customer's manufacturing processes.

Canon U.S.A., Inc.





Equipped with an optical encoder, FH-300-20 achieves precise force control with a thin, lightweight design and low noise.

Scan for more information



*1: Supported models are planned to be expanded as needed.

*2: This value indicates the measurement result in our environment. The improvement rate varies depending on the environment of each customer.

*3: For details of the specifications and installation method, refer to the standard specifications of the force sensor.

If you would like more information about Canon force sensors, please contact your local Canon or distributor.



Robot support services





Three services to solve your issues and ensure a stable operation

Monitoring service

Automatically aggregates daily robot operation data, making it easy to look up

the operation status for each day. This lets everyone monitor

I his lets everyone monitor a wide range of information

Setup Operation



Inspection service

A comprehensive inspection service to ensure the stable operation of robots.

This service can be utilized through our Light Inspection Service or our Detailed Inspection Service.

Maintenance / Repair



Warranty extension service

Loss costs can be reduced in the unlikely event that a robot encounters a failure

as parts covered by the warranty are repaired free of charge.



Operation Maintenance / F

Mitsubishi Electric Industrial/Collaborative Robots MELFA Powerful, agile, and compact robots that meet diversified customer needs

Vertical articulated robot RV-FR series *1



RV-2FR-D/Q/R Maximum load capacity: 2 kg Maximum reach radius: 504 mm



RV-2FRL-D/Q/R Maximum load capacity: 2 kg Maximum reach radius: 649 mm

Environmental specifications (Protection degree) Standard (IP30)



RV-4FR-D/Q/R Maximum load capacity: 4 kg Maximum reach radius: 515 mm



RV-4FRL-D/Q/R Maximum load capacity: 4 kg Maximum reach radius: 649 mm



Maximum load capacity: 7 kg

Maximum reach radius: 713 mm

PLUS RV-7FRL-D/Q/R



Ame





RH-3FRH35**-D/Q/R Maximum load capacity: 3 kg Maximum reach radius: 350 mm



RH-3FRH45**-D/Q/R Maximum load capacity: 3 kg Maximum reach radius: 450 mm

Environmental specifications (Protection degree) Standard (IP20) Cleanroom (ISO class 3)



RH-3FRH55**-D/Q/R Maximum load capacity: 3 kg Maximum reach radius: 550 mm



RH-6FRH35**-D/Q/R Maximum load capacity: 6 kg Maximum reach radius: 350 mm

RH-6FRH55**-D/Q/R

Maximum load capacity: 6 kg Maximum reach radius: 550 mm

Environmental specifications (Protection degree) Standard (IP20) Oil mist (IP65) Cleanroom (ISO class 3)

RH-6FRH45**-D/Q/R

Maximum load capacity: 6 kg

Maximum reach radius: 450 mm

Vertical articulated robot RV-CR series



RV-8CRL-D Maximum load capacity: 8 kg Maximum reach radius: 931 mm



RV-12CRL-D Maximum load capacity: 12 kg Maximum reach radius: 1504 mm

Environmental specifications (Protection degree) Oil mist (IP65)

Horizontal articulated robot RH-CRH series



RH-3CRH4018-D Maximum load capacity: 3 kg Maximum reach radius: 400 mm



RH-6CRH6020/7020-D Maximum load capacity: 6 kg Maximum reach radius: 600/700 mm



Maximum load capacity: 10 kg

Maximum reach radius: 600/700/800 mm



RH-20CRH8542/10042-D Maximum load capacity: 20 kg Maximum reach radius: 850/1000 mm

Environmental specifications (Protection degree) Standard (IP20)



FR PLUS-compatible model



RV-7FRLL-D/Q/R Maximum load capacity: 7 kg Maximum reach radius: 1503 mm

Environmental specifications (Protection degree) Standard (IP40) Oil mist (IP67) Cleanroom (ISO class 3)



RV-13FR-D/Q/R Maximum load capacity: 13 kg Maximum reach radius: 1094 mm



RV-13FRL-D/Q/R Maximum load capacity: 13 kg Maximum reach radius: 1388 mm



RV-20FR-D/Q/R Maximum load capacity: 20 kg Maximum reach radius: 1094 mm



RV-35FR-D/Q/R, RV-50FR-D/Q/R, RV-80FR-D/Q/R Maximum load capacity: 35 kg/50 kg/80 kg Maximum reach radius: 2100 mm

Environmental specifications (Protection degree) Standard (Wrist: equivalent to IP67, Body: equivalent to IP65) Oil mist (Whole body: equivalent to IP67)



RH-12FRH55**-D/Q/R Maximum load capacity: 12 kg Maximum reach radius: 550 mm



RH-12FRH70**-D/Q/R Maximum load capacity: 12 kg Maximum reach radius: 700 mm

Environmental specifications (Protection degree) Standard (IP20) Oil mist (IP65) Cleanroom (ISO class 3)



RH-12FRH85**-D/Q/R Maximum load capacity: 12 kg Maximum reach radius: 850 mm



RH-20FRH85**-D/Q/R Maximum load capacity: 20 kg Maximum reach radius: 850 mm



RH-20FRH100**-D/Q/R Maximum load capacity: 20 kg Maximum reach radius: 1000 mm

Environmental specifications (Protection degree) Standard (IP20) Oil mist (IP65) Cleanroom (ISO class 3)



RH-3FRHR35**-D/Q/R Maximum load capacity: 3 kg Maximum reach radius: 350 mm Vertical stroke: 150 mm Cleanroom (ISO class 5), Waterproof (IP65): Vertical stroke 120 mm





RV-5AS-D Maximum load capacity: 5 kg Maximum reach radius: 910 mm Environmental specifications (Protection degree) Oil mist (IP54)







*1: To purchase the robots designed to withstand environmental conditions (for pharmaceutical and food applications), contact your local sales office

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Mitsubishi Electric's e-F@ctory concept utilizes both FA and IT technologies, to reduce the total cost of development, production and maintenance, with the aim of achieving manufacturing that is a "step ahead of the times". It is supported by the e-F@ctory Alliance Partners covering software, devices, and system integration, creating the optimal e-F@ctory architecture to meet the end users needs and investment plans.



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