Mitsubishi Electric AC Servo System
Motion Module RD78GHW/RD78GHV

December 2019

High-performance type

RD78GH is newly released
RD78G is upgraded

New Product Release
SV1912-2E

CC-Link IE TSN
MELSEC iQ-R series

RD78GHV [NEW]
RD78GHW [NEW]

- Maximum number of control axes:
  128 axes/module (RD78GHV)
  256 axes/module (RD78GHW)
- ST language program capacity:
  Built-in ROM max. 64 MB
  + SD memory card

CC-Link IE TSN
MELSEC iQ-R series

RD78G4/RD78G8/RD78G16
RD78G32/RD78G64

- Maximum number of control axes:
  64 axes/module (RD78G64)
- ST language program capacity:
  Built-in ROM max. 16 MB + SD memory card

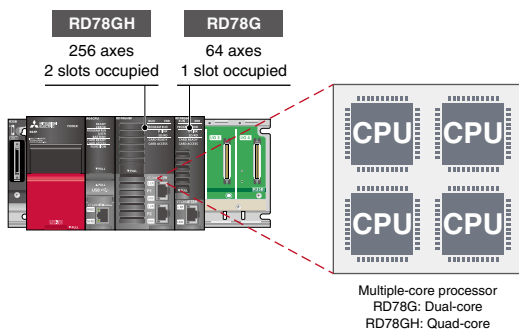| Minimum operation cycle	Max. number of control axes
31.25 µs	**256** axes

Industry-leading level

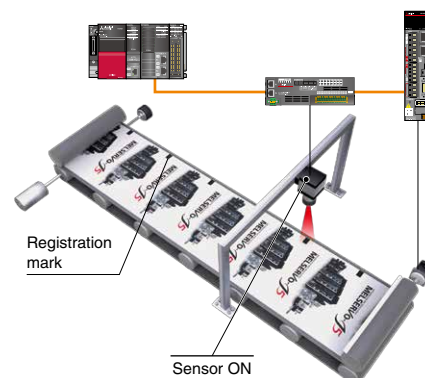| Minimum operation cycle	Max. number of control axes
62.5 µs	**64** axes

Upgraded

Motion Modules for High-Performance Operation

- Two types of Motion modules are available:
  RD78G for positioning and synchronous control and
  RD78GH for higher-accuracy control.
- Control load distribution among PLC CPUs and Motion
  modules is possible: the PLC CPUs execute machine
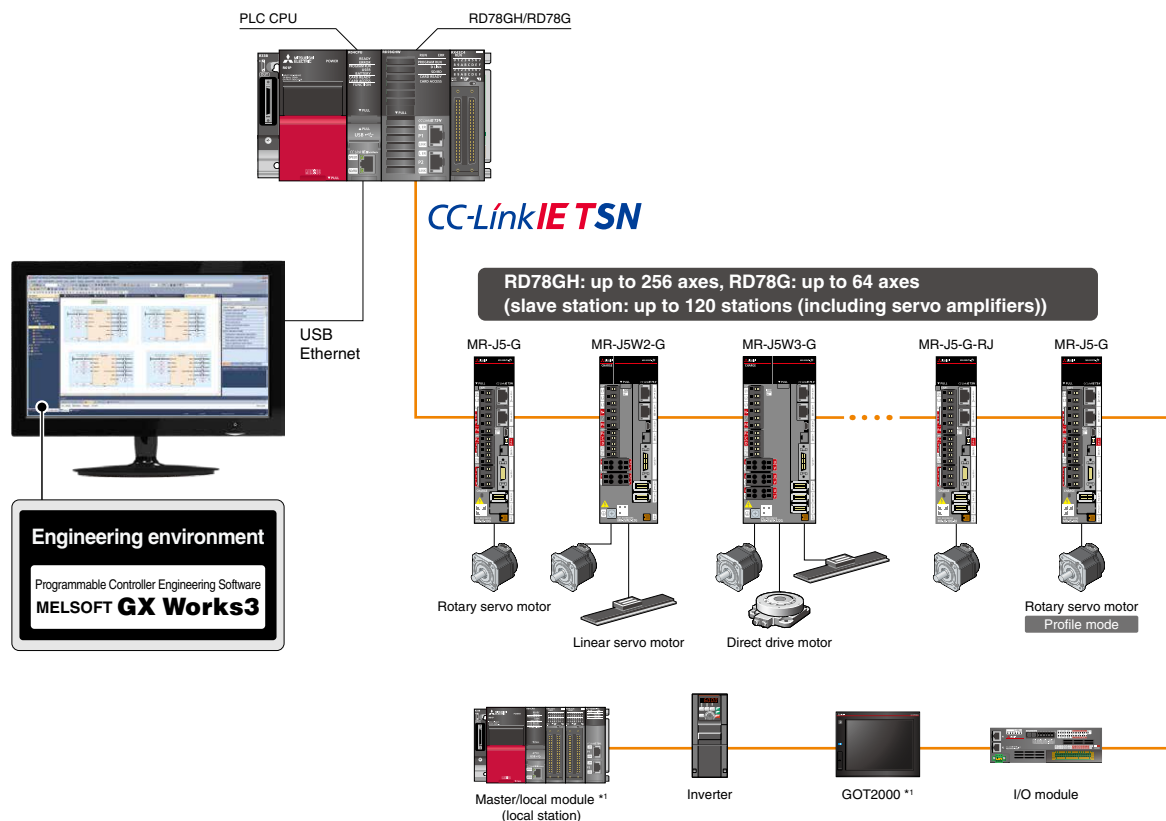 control, and the Motion modules execute motion control.

RD78GH
256 axes
2 slots occupied

RD78G
64 axes
1 slot occupied

CPU CPU
CPU CPU

Multiple-core processor
RD78G: Dual-core
RD78GH: Quad-core

Touch Probe Function (Mark Detection Function) [NEW]

This function latches data responding to a trigger signal input.
The trigger signal can be inputted to the controller using a
remote I/O.

Registration mark

Sensor ON

Mitsubishi Electric AC Servo System Motion Module RD78GHW/RD78GHV

■ System configuration

PLC CPU   RD78GH/RD78G

CC-Link **IE TSN**

USB
Ethernet

**RD78GH: up to 256 axes, RD78G: up to 64 axes
(slave station: up to 120 stations (including servo amplifiers))**

MR-J5-G   MR-J5W2-G   MR-J5W3-G   MR-J5-G-RJ   MR-J5-G

Engineering environment

Programmable Controller Engineering Software
MELSOFT **GX Works3**

Rotary servo motor

Linear servo motor   Direct drive motor

Rotary servo motor
Profile mode

Master/local module *1
(local station)

Inverter   GOT2000 *1   I/O module

*1. Planned for a future support.

■ Specifications list

Item		RD78GHW	RD78GHV	RD78G64	RD78G32	RD78G16	RD78G8	RD78G4
Maximum number of control axes	[axes]	256	128	64	32	16	8	4
Minimum operation cycle*1	[µs]	31.25		62.5				
Maximum number of connectable stations		120 stations						
Servo amplifier connection method		CC-Link IE TSN (Authentication class: B)						
Number of I/O points occupied		32 points + 16 points (empty slot)		32 points				
Number of slots occupied		2 slots		1 slot				
5 V DC internal current consumption	[A]	2.33		1.93				
Mass	[kg]	0.44		0.26				
Dimensions	[mm]	106.0 (H) × 56.0 (W) × 110.0 (D)		106.0 (H) × 27.8 (W) × 110.0 (D)				

*1. The minimum operation cycle varies by the number of control axes and the models.

■ To use the RD78GH and the upgraded RD78G, the following versions of the firmware and the software are required.
To obtain the firmware/software update files, contact your local sales office.

- ● Motion module firmware: 05 or later
- ● PLC CPU module firmware
  - R00CPU/R01CPU/R02CPU: 14 or later
  - R04CPU/R08CPU/R16CPU/R32CPU/R120CPU: 46 or later
  - R□ENCPU: 46 or later (CPU part)

- ● GX Works3 Version1: 1.060N or later
- ● Motion control setting: 1.005F or later
- ● MR-J5-G servo amplifier firmware: A6 or later

MITSUBISHI ELECTRIC CORPORATION

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Specifications are subject to change without notice.