SANMOTION R

Multi-Axis Servo Amplifier With EtherCAT Interface

4-axis **DC input**

Applications

Chip mounters, semiconductor manufacturing equipment, and conveying machines

EtherCAT®

With High-Speed Fieldbus EtherCAT Interface

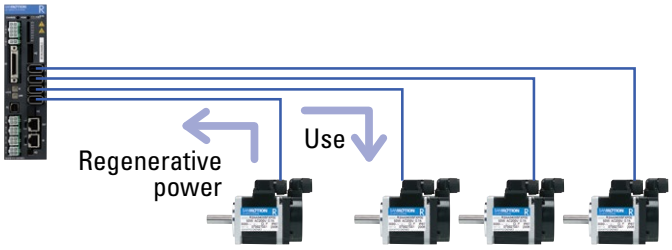
With 100 Mbps communication speed and 125 µsec minimum cycle time, commands such as for positioning or speed can be further subdivided for smooth device operation.

Compact

This compact and space-saving 4-axis servo amplifier is ideal for chip mounters and other devices where space is limited.

Energy Efficient

Regenerative power can be used to drive other motors, contributing to making devices energy-efficient.



Standard Model Number List

Main circuit power	Control power	Encoder type	General purpose output	Internal regenerative resistor	Safe Torque Off function	Amplifier capacity	Cooling fan	Model no.	Dimensions (mm)	Compatible motors
48 VDC ± 10%	24 VDC ± 10%	Serial encoder	Photo relay output	No	Yes (with delay circuit)	40 A	No	RF2J24A0HL5	W50 × H200 × D130	20 W to 30 W / axis 120 W / total 20 mm sq., 40 mm sq.
							Yes	RF2K24A0HL5		20 W to 200 W / axis 300 W / total 20 mm sq., 40 mm sq., 60 mm sq.

Common Specifications

Structure	Enclosure type
Input power	Control power: 24 VDC ±10%, Main circuit power: 48 VDC ±10%
Dimensions	W 50 mm x H 200 mm x D 130 mm
No. of axes	Up to 4 (EtherCAT interface)
Output capacity per axis	Model no. RF2J24A0HL5: 20 W to 30 W / axis Model no. RF2K24A0HL5: 20 W to 200 W / axis
Total amplifier output capacity	Model no. RF2J24A0HL5: 120 W max. Model no. RF2K24A0HL5: 300 W max.
Safety function	Safe Torque Off (STO)
Synchronization function	Each axes' encoder signal is fed back within the Control Unit, enabling tandem operation of servo motors

Contact us for specifications with 24 VDC input power (main circuit power).

EtherCAT Interface Specifications

Physical layer	IEC61158-2 IEEE802.3u 100BASE-TX
Data link layer	IEC61158-3, -4 Type12
Application layer	IEC61158-5, -6 Type12
Device profile	IEC61800-7 Profile type1 (CiA402) CoE (CAN application protocol over EtherCAT)
Communication port	RJ45 connector (2 ports)
Bit rate	100 Mbps (Full duplex)
Max. no. of nodes	65535 nodes
Transmission distance / topology	Max. 100 m (between nodes) / Daisy-chain
Cable	Twisted-pair CAT5e (straight or cross)
Communication objects	SDO (Service Data Object) PDO (Process Data Object)
Synchronization types	SYNC0, SYNC1 event synchronization mode, asynchronous mode
Operation modes	Profile position mode, profile velocity mode, profile torque mode, homing mode, cycle sync position mode, cycle sync velocity mode, cycle sync torque mode
LED indicator	Port 0/1 link display, RUN display, error display
General purpose I/O	8 inputs (4 axis shared), 2 outputs (8 total)

Precautions For Adoption

Failure to follow the precautions on the right may cause moderate injury and property damage, or in some circumstances,could lead to a serious accident. Always follow all listed precautions.

⚠ Cautions

- Read the accompanying Instruction Manual carefully prior to using the product.
- If applying to medical devices and other equipment affecting people's lives, please contact us beforehand and take appropriate safety measures.
- If applying to equipment that can have significant effects on society and the general public, please contact us beforehand.
- Do not use this product in an environment where vibration is present, such as in a moving vehicle or shipping vessel.
- Do not perform any retrofitting, re-engineering, or modification to this equipment.
- The products presented in this catalog are meant to be used for general industrial applications. If using for special applications related to aviation and space, nuclear power, electric power, submarine repeaters, etc., please contact us beforehand.

*For any question or inquiry regarding the above, contact our Sales Department.

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