

AC Servomotors /Linear Motors /Servo Drives

# **G5** Series

NEW

## **The Preeminent Servo That Revolutionizes Motion Control**



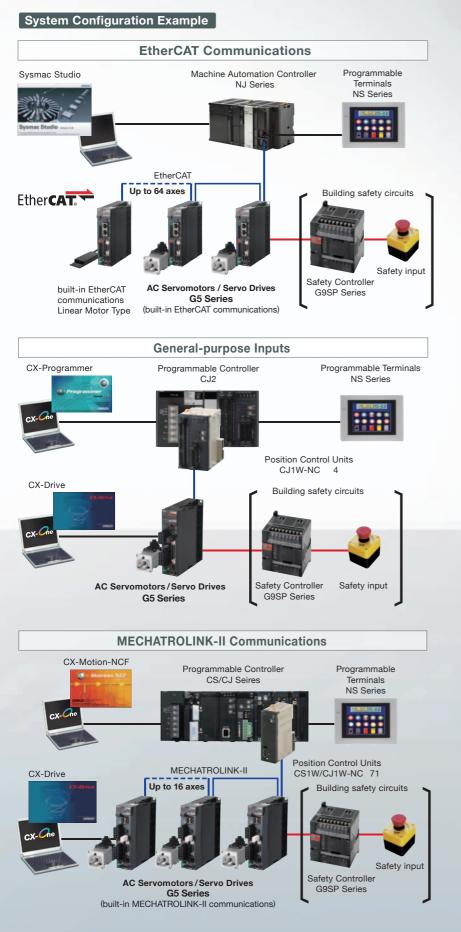
»High Speed and High Precision »International Safety Standards



# Higher Throughput and Shorter Tact Time, Plus Improved Machine Safety



# Achieve the fastest position control in the industry by combining the G5 with an OMRON Controller.



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## High Speed and High Precision

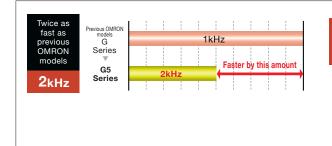
# **Provide Tact Time Improvement and Hig**

## **Industry Top-class Tracking Performance**

#### Speed Response Frequency of 2 kHz

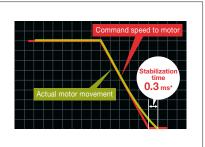
Industry V Top Class

Speed response is representative of servo system characteristics. In the G5, the industry's fastest response has been achieved at 2 kHz. By improving the speed response by twice compared to previous OMRON models, the stabilization time has been shortened and this contributes to tact time reduction.



Motion control accurately follows commands.Effective for simultaneous control as well as improving tact time.

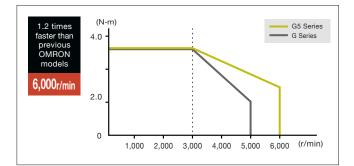
\* Combination of R88D-KT01L Servo Drive and R88M-K10030L Servomotor. Example of actual measurements taken with gain adjusted by CX-Drive, with inertia ratio of x3 on ball screw mechanical system.



## **Reduced Tact Time with Higher Speed**

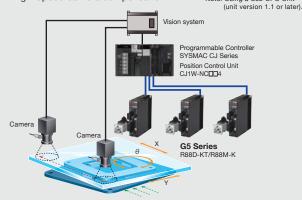
#### Maximum rotation speed : 6,000 r/min\*

The maximum rotation speed of R88M-series Servomotors has increased to 6,000 r/min, resulting in high-speed positioning that can reduce tact time. \*Applicable to 100 V/200 V models with 750 W or less.



#### Example of High-speed/High-precision Application

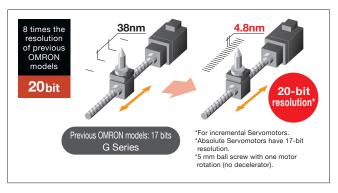
- High-Speed and, High-Precision Position Control Using Camera Compensation
- The pulse output startup time of 0.1 ms enables High-Speed camera compensation. Note: Using a CJ2 CPU Unit



## **Best Positioning Accuracy**

#### Featuring a 20-bit high-resolution incremental encoder

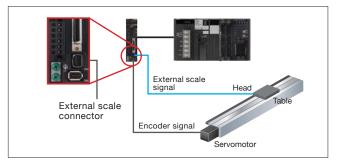
High-precision positioning can be achieved with the built-in encoder, 8 times the resolution of previous OMRON models at 20 bits.



## **High-precision Positioning**

### Fully Closed Loop Control Is a Standard Feature

High-precision and high-response positioning can be realized without being affected by temperature changes by determining the position using direct feedback of the control position from the external scale, to enable using fully closed loop control without options. (The external scale connector terminal is a standard feature.)



Safety

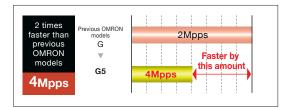
# h Accuracy

# Safety Motion Control That Provides Safety and Reliability

## High-speed and High-precision Positioning

#### Pulse input response frequency: 4 Mpps

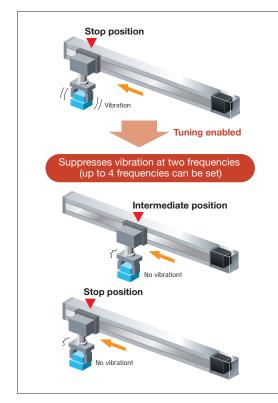
The Servo Drive response to command pulses is 4 Mpps, twice that of previous OMRON models. Response delays are thus reduced enabling high-speed and high-precision positioning.



## Ideal for Applications That Require High Accuracy

#### Improved vibration control function

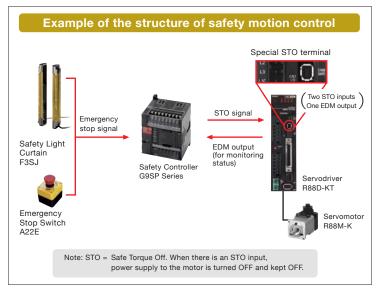
With the vibration control function, if the tip of the device is vibrating, the vibration frequency can be set to remove the vibration. It can also be used to suppress vibration resulting from starting and stopping the device, allowing precise movement.



## **Conforms to the Latest International Standards**

#### Safety and Productivity

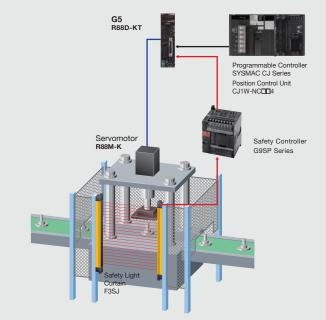
The G5 was the first to acquire international standard IEC 61800-5-2 (STO) for motion control in the industry within Japan. It also conforms to the European Directives ISO 13849-1(PLc,d) \* and EN 61508 (SIL2). Safety control circuits can be constructed with the Servo Drive, delivering both safety and productivity.



\* Refer to General Specification of Servo Drive for the compliance of international standards.

#### Safety Motion Application Example

Safety interlocks can be controlled by combining a Safety Light Curtain and Safety Motion Control.



# **Easy Adjustment and Reduce works to**

## **Complete Support from Setup to Maintenance**

#### Software

#### How to Select Required Support Software for Your Controller

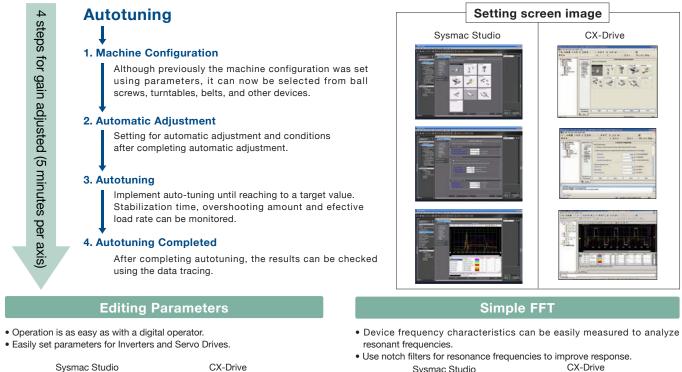
The required Support Software depends on the Controller to connect. Please check the following table when purchasing the Support Software.

Item	Omron Machine Automation Controller System	Omron PLC System
Controller	NJ-series	CS, CJ, CP, and other series
AC Servomotor/Drives	<ul> <li>G5-series</li> <li>EtherCAT Communications (Unit version 2.1 or later reccomended)</li> <li>EtherCAT Communications Linear Motor</li> </ul>	G5-series • EtherCAT Communications • EtherCAT Communications Linear Motor • General-purpose input type(PulseTrain or Analog inputs) • MECHATROLINK-II Communications
	Automation Software Sysmac Studio	FA Integrated Tool Package CX-One
Software	The Sysmac Studio provides an integrated development environment to set up, program, debug, and maintain NJ-series Controllers and other Machine Automation Controllers, as well as EtherCAT slaves.	The CX-Drive software allows you to set, transfer, and compare Servo Drive parameters, to perform trial operation and adjustments, and to monitor and trace operation. CX-Drive is bundled in CX-One.
	Setting, adjustment, monitoring/tracing with the Servo Drive can be done via an EtherCAT network.	<connecting drive="" method="" servo="" the="" with=""> - Direct connection with the Servo Drive.</connecting>
	<connecting drive="" method="" servo="" the="" with=""> - Connection via the NJ</connecting>	- Connection via a PLC (possible with the Servo Drive with built-in EtherCAT communications function)

#### Simple Gain Adjustment

#### Quickly adjust the gain using a wizard.

The autotuning feature provided with the CX-Drive makes it easy to adjust the Servo Drive gain. You can use a wizard to complete gain adjustment in approximately five minutes or less per axis simply by selecting the machine configuration and entering the target set time.





Sysmac Studio



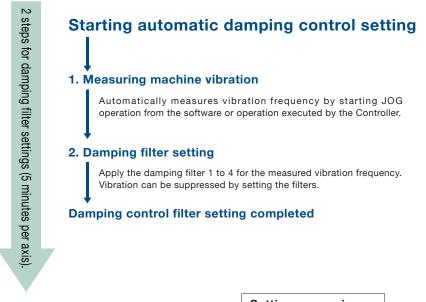


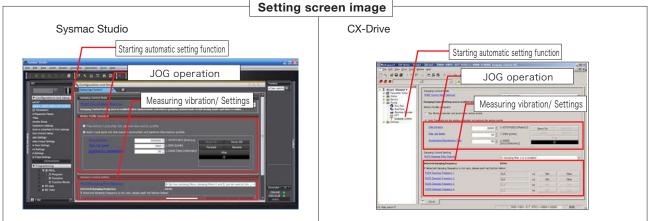


#### Automatic damping control setting

#### Settings for damping control for the axis at the tip of the machine in a short time

Automatic damping control setting function is useful to execute damping control for Servo Drives. Manual settings will not be necessary. JOG operation, measuring vibration and parameter settings can be made on one screen.





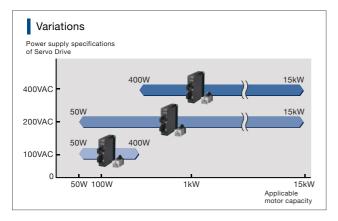


# Easy Adjustment and Reduce works to System Start-up

## Globalization

#### Lineup of 400VAC Servomotors

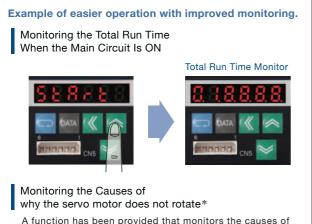
Servomotors are available for 100VAC, 200VAC, and 400VAC. And they conform to international safety standards for easy application anywhere worldwide.





## **Reduced Work with Increased Monitor Functions**

Monitoring for preventive maintenance have been improved.



A function has been provided that monitors the causes of why the Servo motor does not move even though a rotation command has been sent.

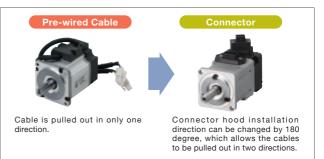
\* Supported by the Servo Drive Analog/Pulse train type only.

## Flexible cable pull-out direction

## Direct conenctors for power cable, encoder cable, and brake cable connection.

In case that user creates motor cables, cable pull-out direction can be changed by 180 degree. (Refer to G5 Series User's manual (Cat,No. I571/I572) for the information about applicable motor capacity and connection method).

If you use cables provided by Omron, cable pull-out direction is limited to only one direction.



## Side by side installation to save space

#### Possible to install multiple drivers side by side.



#### \*Drivers with 750W or less capacity only There are usage limitations including ambient temperature and load rate. Refer to G5 Series User's manual (Cat.No. 157/1572) for detailed information.

## Servomotors Conform to IP67

(Excluding through-shaft parts, connector pins of Servomotor Connector and connector pins of Encoder Connector)

The power cable and encoder cable also conform to IP67 "Applicable to 3 to 20m cables of 100V/200V models with 750W or less.

The Servomotor provides IP67 protection, enhancing resistance to the environment.



## **Reduced Stabilization Time by Suppressing Vibration**

#### **60% cogging torque reduction** (compared to previous G models)

Motor torque variation is reduced due to a 60% reduction in the cogging torque, resulting in high-precision positioning. This enables smooth operation at low speeds.

# Lineup of Linear Motors to Achieve Higher Speed and Higher Precision

President and real heat lies

## **Inherited functions and performance of G5 series with EtherCAT communications**

#### **EtherCAT**

Linear motors joined the lineup and the following functions of G5 series achieve higher speed and higher precision.

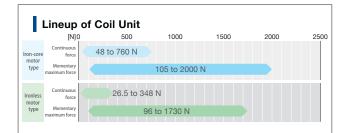
- \* High-speed communication via EtherCAT communications at 100 Mbps \* Autotuning for simple adjustment
- \* Useful damping control function to improve device quality
- \* Safety function STO (Safe Torque Off)



## Selectable motors suitable for device

#### Iron-core motor type and ironless motor type

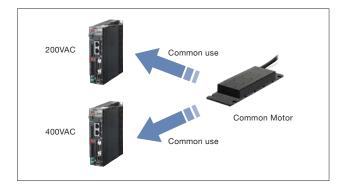
You can choose between compact and high-thrust iron-core motor type and cogging-free ironless motor type with excellent speed stability



# Power supply voltage sharing iron-core motor

## Using the same Iron-core motor for 200VAC/400VAC

Iron-core motor type The same motor can be used for 200VAC and 400VAC. The same maintenance parts for motors can be used regardless of device and user.



## **Reduced tact time with higher speed**

#### Higher speed by direct drive

Significantly higher speed than ball screws contributes to make G5 series suitable for faster device application and reduce tact time. Maximum speed 16 m/s\*

\* This value is for R88L-EC-GW0309 200VAC motor. It is limited by power supply voltage, model, linear guide, linear scale, and load.

## **High-precision positioning**

#### Available with various linear scales

High-precision and high-speed positioning Maximum speed at 0.01 μm of scale resolution for serial communications: 4 m/s\*

\* This value is for Servo Drive. It is limited by the scale specifications. Available linear scale

Serial communications (incremental/absolute), phase A/B/Z pulse type

## Quick setup

#### **Automatic setup**

Automatic setup for motor parameters by selecting the motor. A wizard helps set the scale direction, magnetic pole, or current gain automatically.



# The optimum combination can be found from a v model variations to handle various applications.

#### Servo Drive Variations G5 Series EtherCAT Compatible Servo Drives EtherCAT Compatible Servo Drives Linear Motor Type Servo Drives Pulse/analog inputs MECHATROLINK-II Compatible Servo Drives R88D-KN -ECT R88D-KN -ECT-L R88D-KT R88D-KN -ML2 E. E. 100VAC ingle-phase ingle-phase Single-phas ingle-pha ower supply Single/ Three-phas Single/ Single/ 200VAC Three-phase Three-phase 400VAC Three-phas Three-pha 53 N 58 N 96 N 117 N 400 W 48 N 160 N 175 N 50 W 400 W 50 W 100VAC Single-26.5 N 48 N 53 N phase Motor Single/ 117 N 900 1 1.5 W kW kW 160 N 175 N 400 W 750 W 200VAC 200 400 W 96 N 750 W 900 W 200 W Capacity/Force Three-phase Three 2 kW 11 kW 15 kW 6 kW 7.5 kW 3 kW 4 kW 7.5 kW 2 kW phase 750 W 1 kW 600 W 750 W 1 kW 400 W 900 W 750 W 900 W 900 W 1.5 kW 600 W 1 kW Three 400VAC 608 N 48 N 96 N phase 7.5 kW 3 kW 4 kW 5 kW 4 kW 4.5 kW 5 kW 6 kW 7.5 kW 11 kW 15 kW 2 kW 3 kW 4 kW 4.5 kW 5 kW 6 kW 11 kW 2 kW 15 kW Command type FCT ECT мі : Speed Torque Torque control Speed Torque control beed Forque Speed Control modes Control mode switching Tuning Vibration control <u>UTO</u> 32 AUT( 32 Autotuning tunctions Realtime autotuning Conforms to international fety safety standards Fully Fully closed Servo Drive **Torque limits** funct 1NC 20 Encoder output ons Internal set speeds

Refer to Ordering Information for details on combining Drives and Servomotors.

\*1. Two limits. \*2. Two adaptive filters and two notch filters.

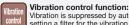
## Functions





Position control: Control is applied to move to the target position and then stop at the target position.

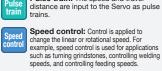
ECT: EtherCAT high-speed Servo communications motion network.



Vibration is suppressed by automatically setting a filter for the vibration frequency. Adaptive filter: The machine load inertia is calculated in realtime and the



Internal set speeds: Speed control according to the internal set speed that is set for the parameter. Up to 8 internal set speeds can be selected.



Autotuning: This function AUTO

Pulse train: The speed and travel

automatically sets an appropriate gain based on the rigidity setting of the machine load; 32 levels of rigidity settings are possible. 32

Safety function: Conforms to IEC 61800-5-2 (STO), EN ISO 13849-1: 2008 (PLc,d), ISO 13849-1: 2006(PLc,d) and EN 61508 (SIL2). Analog: The speed and torque are input to the Servo as analog signals



Absolute output: When the Controller power supply is turned ON, the Controller reads the Servo absolute position data to restore the absolute position.



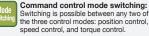
adjust the rotational force. Torque control is suitable for applications such as parts insertion, pressing, and screw tightening.



Fully closed (fully closed loop control): Positioning using direct feedback of the current position from the external scale.



ML2: MECHATROLINK-II high-speed Servo communications motion network. (See note.)





Incremental output: When the controller power supply is turned ON, operation is always started from the origin. A 20-bit resolution is provided on models with incremental outputs.

Torque limit: Switching is possible between the first torque limit and the second torque limit to limit the Servomotor output torque.

# ariety of functions and

	G	5 Series AC Servor	notor				G5 Series	Linear Motor
		therCAT Compatible, ( TROLINK-II Compatib					Servomotors with EtherCAT Compatible Linear motor Type	
	R88M-ł	<					R88L-EC-FW-	R88L-EC-GW-
								Con a ser
Motor type		Cylinder type –						
Rated speed	1000r/min	2000r/min		0r/min		Motor type	Iron-core	Ironless
50W			ABS	INC 20		26.5N		Iron less
100W			ABS	INC 20		48N	Iron core	
200W			ABS	INC 20		53N		Iron less
400W		ABS INC 20	ABS INC	INC 20		58N		Iron less
600W		ABS INC 20		_		80N		Iron less
750W			ABS	INC 20		96N	Iron core	
900W	ABS INC 20			_		117N		Iron less
1kW		ABS INC 20	ABS	INC 20	Een	160N	Iron core	
1.5kW		ABS INC 20	ABS INC	INC 20	ear Mo	175N		Iron less
2kW	ABS INC 20	ABS INC 20	ABS INC	INC 20	Lenear Motor Force	232N		Iron less
3kW	ABS INC 20	ABS INC 20	ABS INC	INC 20	G	240N	Iron core	
4kW		ABS INC 20	ABS INC	INC 20		320N	Iron core	
4.5kW	ABS					348N		Iron less
5kW		ABS INC 20	ABS	INC 20		608N	Iron core	
6kW	ABS					760N	Iron core	
7.5kW		ABS *						
11kW		ABS *						
15kW		ABS *						

## Functions

ABS INC

Iron core

absolute/Incremental output: The Servomotor can be switched between an absolute output and an Incremental output. When an absolute output is selected and the Controller power supply is turned ON, the Controller reads the Servo absolute position data to restore the absolute position. A-17bit resolution is provided on model with an absolute output and an incremental output.



**Incremental output:** When the controller power supply is turned ON, operation is always started from the origin. A 20-bit resolution is provided on models with incremental outputs.

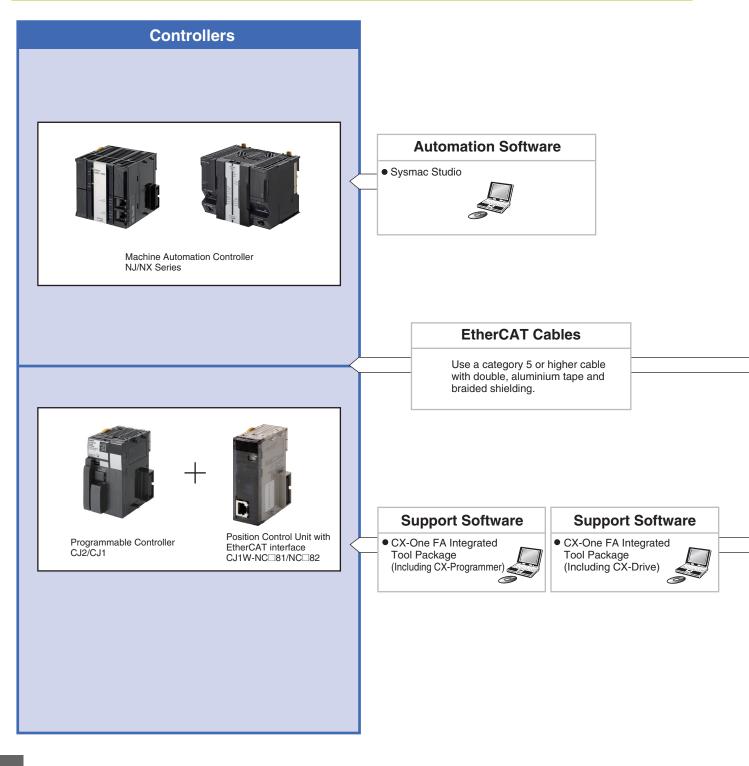
Iron-core: Coil units consist of cores and coils. Compact and high-thrust type.

lron less

Ironless: Coil units do not include a core. Cogging-free type with excellent speed stability.

G5 Series AC Servomotor/Servo Drives with built-in EtherCAT Communications **R88M-K/R88D-KN**-ECT

## **System Configuration**

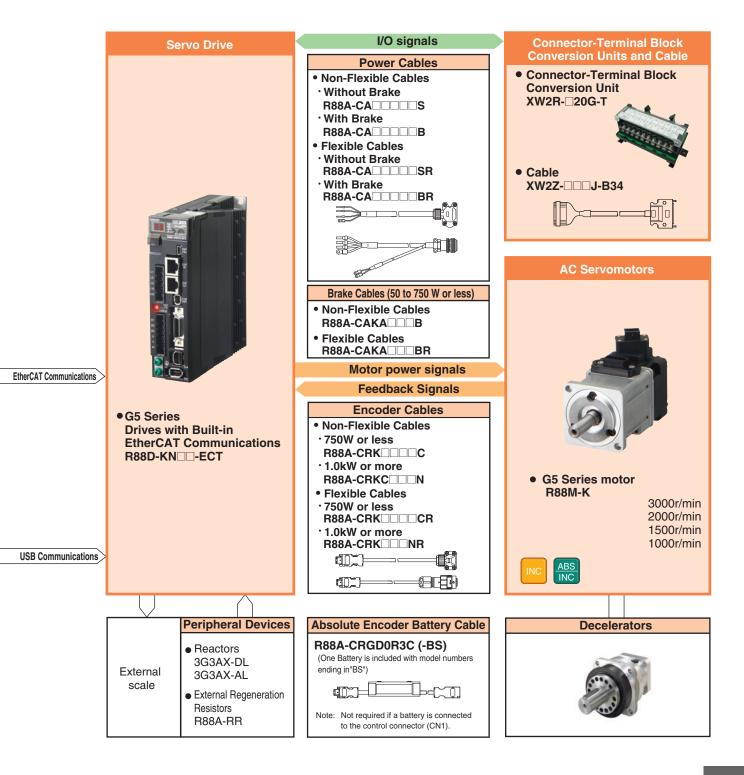


A-2 OMRON

## High-Speed and High-Precision G5 Series EtherCAT Communications with the Controller

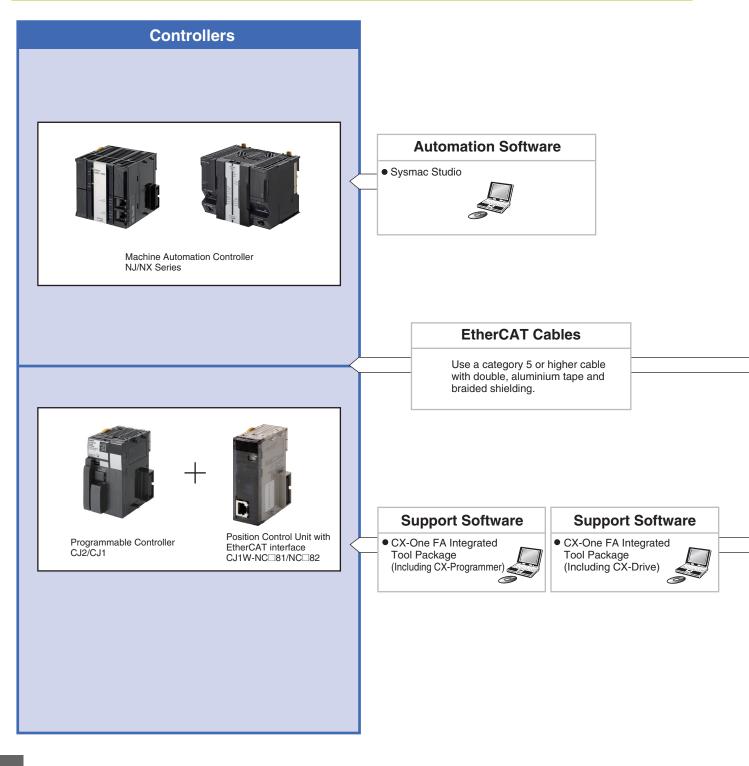
- High-accuracy positioning with fully-closed control.
- Servo Drives for 400VAC globally widens applicable systems and environment, including large-scale equipment.
- Safe design and Safe Torque Off (STO) function.
- Vibration can be suppressed in acceleration/deceleration even in low-rigidity mechanical systems.





G5 Series AC Servomotor/Servo Drives with built-in EtherCAT Communications **R88M-K/R88D-KN**-ECT

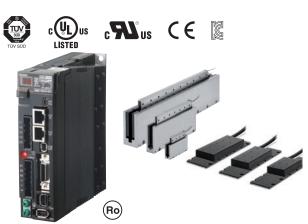
## **System Configuration**

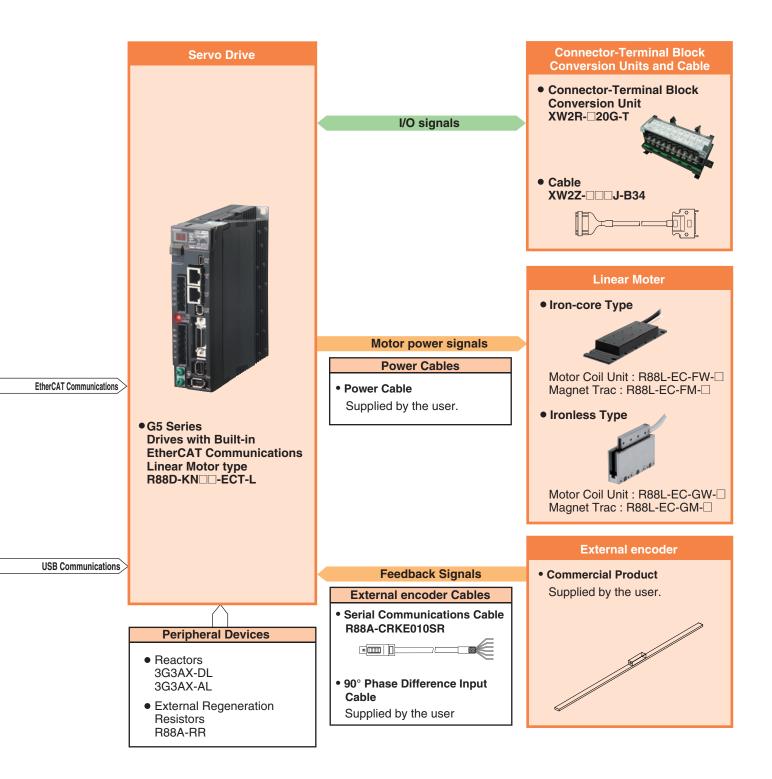


A-2 OMRON

## Linear Motor for Higher-speed and Higher-precision

- Inherited functions and performance of G5 series and EtherCAT communications achieve high-speed and high-precision positioning.
- Lineup of compact and high-thrust iron-core motor type and cogging-free ironless motor type with excellent speed stability.
- Same Iron-core motor type for 200V AC and 400V AC.
- Quick setup by automatic setup function.

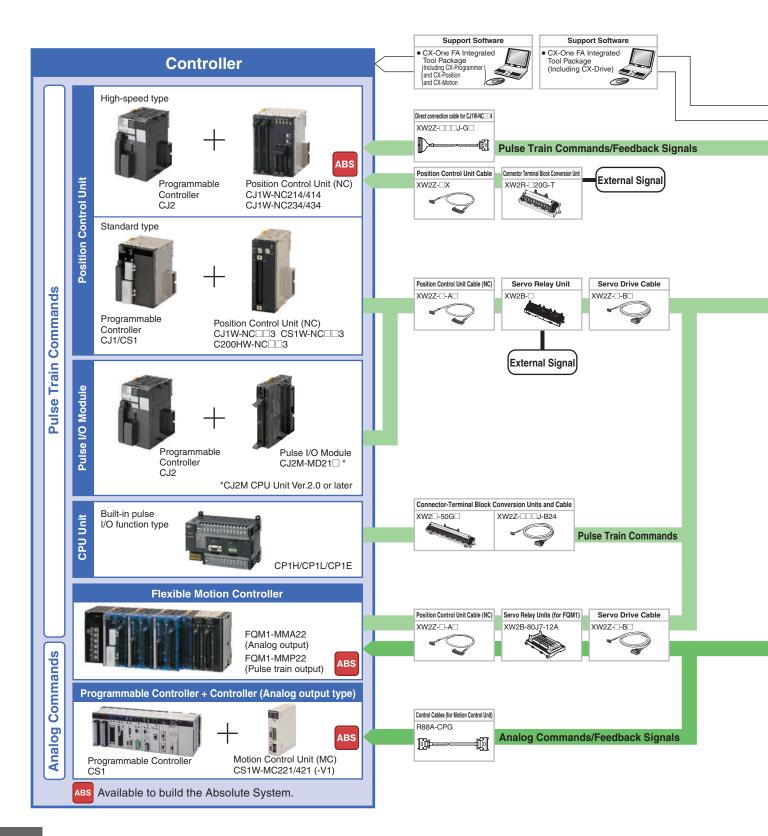




G5-series AC Servomotors/Servo Drives with General-purpose Pulse Train or Analog Inputs

# R88M-K/R88D-KT

## **System Configuration**

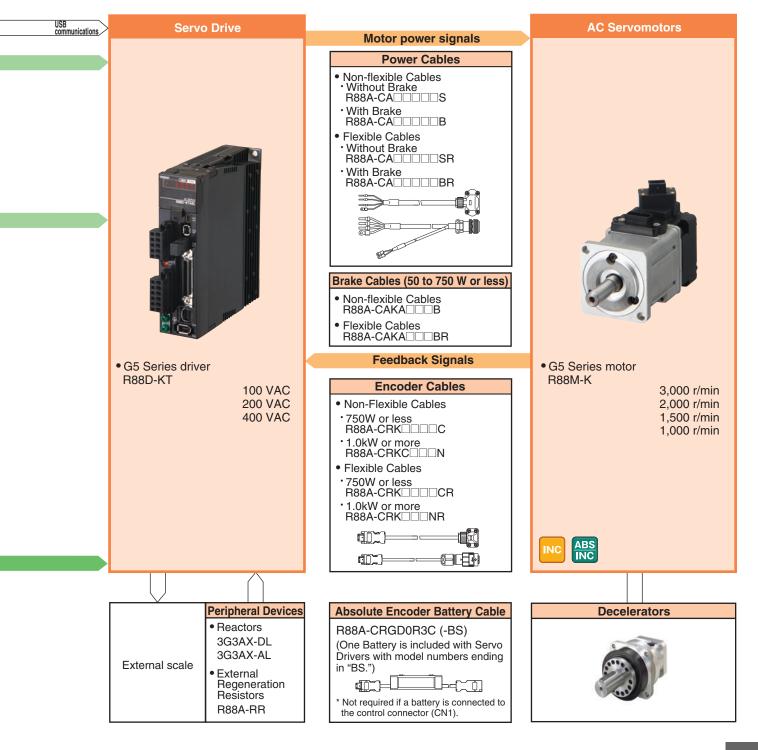


## AC Servomotor/Drive G5-series

## The Preeminent Servo That Revolutionizes Motion Controll

- Industry Top-class Tracking Performance. Speed Response Frequency of 2 kHz.
- Best Positioning Accuracy\*. Featuring a 20-bit high-resolution incremental encoder. \*8 times the resolution of previous OMRON models
- High-precision Positioning. Fully Closed Loop Control Is a Standard Feature.
- Conforms to the Latest International Standards. Safety and Productivity.
- Globalization. Lineup of 400 VAC Servomotors.



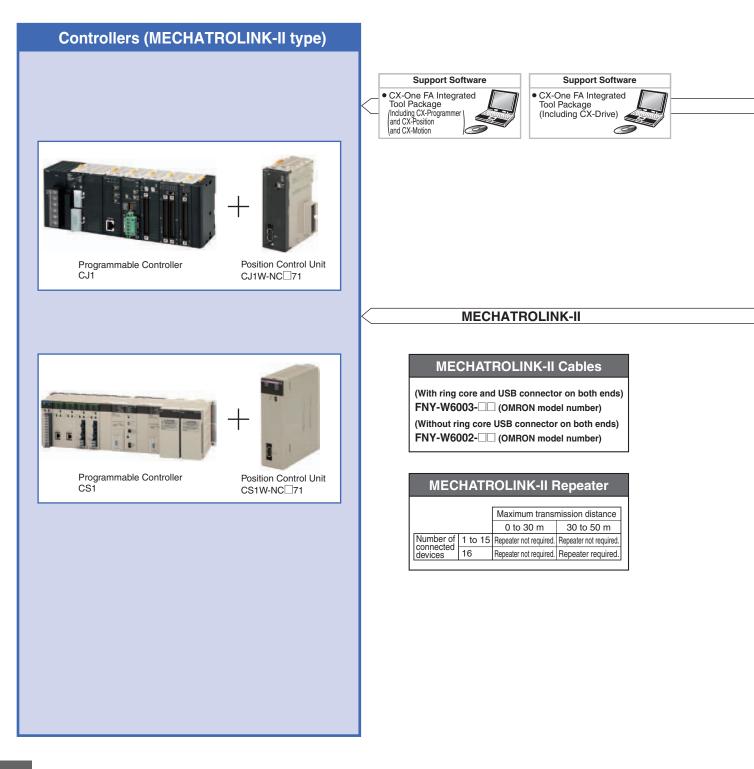


OMRON

G5-series AC Servomotors/Servo Drives with Built-in MECHATROLINK-II Communications

# R88M-K/R88D-KND-ML2

## System Configuration



## **AC Servomotor/Drive G5-series**

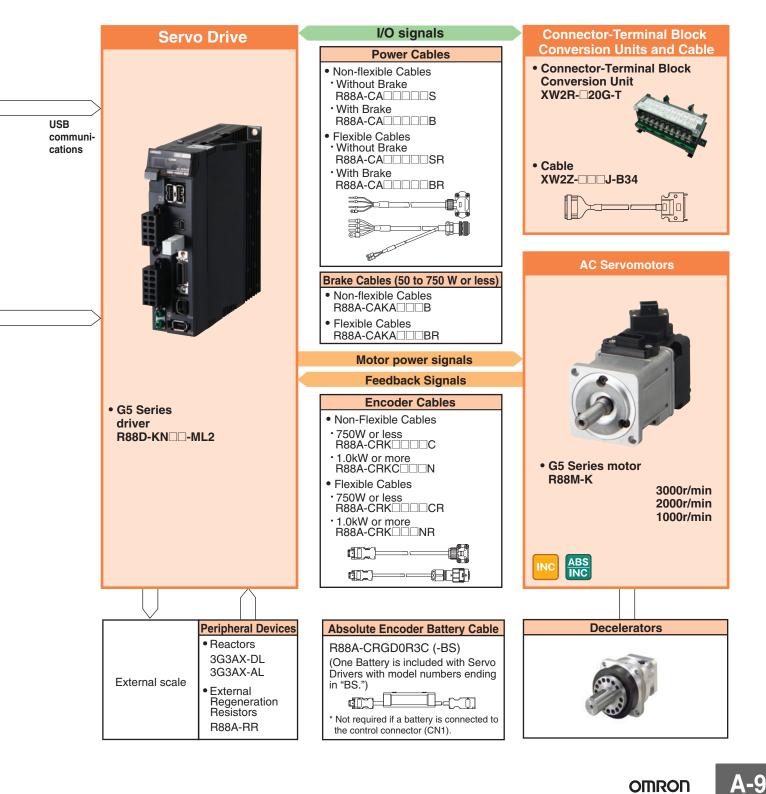
## **High-Speed and High-Precision G5 Series MECHATROLINK-II Communications with the Controller**

• Data transfer using MECHATROLINK-II Communications:

All control data that can be interfaced between the Servo Driver and the Controller is transmitted using data communications. This enables maximizing the Servomotor performance without restricting the transmission performance of the control signals.

 Having a communications module built into the Servo Driver significantly saves space in the control panel.





# AC Servomotor/Drive G5-series

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# **Ordering Information**

Product name	AC Servomotors / Linear Motors / Servo Drives G5-series	
Interpreting Mod	lel Numbers	3-2
■ AC Servo ■ AC Servo ■ Linear Mo ■ Understa	o Drive Rotary Motor Type Model Numbers o Drive Linear Motor Type Model Numbers omotor Model Numbers otor Model Numbers anding Decelerator Model Numbers h = 3' Max./Backlash = 15' Max.)	
Table of AC Serv	omotor Variations	3-5
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EtherC Linear Genera	/esB-6 CAT Communications Motor with built-in EtherCAT communications al-purpose Inputs ATROLINK-II Communications	5
Linear Motors Decelerators ( Accessories a ■ Connecti (Non-f	orsB-7 sB-12 (Backlash = 3' Max./Backlash = 15' Max.)B-12 and CablesB-14 ion Cables (Power Cables, Brake Cables, Encoder Cables) flexible Cables) ble Cables)	2 1
■ Cable/Co ■ Control C ●For Ge ■ Commun ●For ME	nnector	
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<ul> <li>■ AC Servo</li> <li>■ Linear Mo</li> <li>■ Controlle</li> </ul>	o Drive and Servomotor Combinations omotor and Decelerator Combinations otor and AC Servo Drive Linear Motor Type Combinations er Combinations ombinations	
Related Manuals	sB	-37
As a Sysmac Device, th	he G5-series AC Servomotor/Servo Drive with Built-in EtherCAT Communication	ons

As a Systhac Device, the GS-series AC Servorholo//Servo Drive with Built-In Effect AT Communications is designed to provide optimal functionality and enhanced operability when used in conjunction with a Machine Automation Controller such as NJ series and the automation software Sysmac Studio. Sysmac Device is a generic term for OMRON control devices such as an EtherCAT Slave, designed with unified communications specifications and user interface specifications.

When connecting a Servo Drive to the NJ5 series Machine Automation Controller, it is recommended that you use the Servo Drive with Built-in EtherCAT Communications, R88D-KN $\Box$ -ECT, with unit version 2.1 or later.

### **AC Servomotor/Drive G5-series**

## **Interpreting Model Numbers**

## AC Servo Drive Rotary Motor Type Model Numbers

## **R88D-K N 01 H -ECT** (5)

(2) (3) (4) (1)

No	Item	Symbol	Specifications			
(1)		G5-se	G5-series Servo Drive			
(0)	Drive Type	Т	Analog input/Pulse train input type			
(2)	Drive Type	Ν	Communication type			
		A5	50 W			
		01	100 W			
		02	200 W			
		04	400 W			
		06	600 W			
	Maximum	08	750 W			
(3)	Applicable Servomotor Capacity	10	1 kW			
(3)		15	1.5 kW			
		20	2 kW			
		30	3 kW			
		40	4 kW			
		50	5 kW			
		75	7.5 kW			
		150	15 kW			
		L	100 VAC			
(4)	Power Supply Voltage	н	200 VAC			
	vollage	F	400 VAC			
		Blank	General-purpose Inputs			
(5)	Network type	-ML2	MECHATROLINK-II Communications			
		-ECT	EtherCAT Communications			

## AC Servo Drive Linear Motor Type Model Numbers

## R88D-K N 01 H -ECT -L

(1) (2) (3) (4) (5) (6)

No	Item	Symbol	Specifications			
(1)		G5-series Servo Drive				
(2)	Drive Type	N	Communication type			
		01	100 W			
		02	200 W			
		04	400 W			
	Maximum	06	600 W			
(3)	Applicable Linear Motor Capacity	08	750 W			
		10	1 kW			
		15	1.5 kW			
		20	2 kW			
		30	3 kW			
		L	100 VAC			
(4)	Power Supply Voltage	Н	200 VAC			
	• chage	F	400 VAC			
(5)	Network type	-ECT	EtherCAT Communications			
(6)	Motor type	-L	Linear Motor			

## **AC Servomotor Model Numbers** R88M-K 🗆 750 30 H -BO S2

	(1)	(2) (	3) (4) (5)	(6)
No	Item	Symbol	Specification	s
(1)		G5-se	eries Servomotor	
(2)	Motor Type	Blank	Cylinder type	)
		050	50 W	
		100	100 W	
		200	200 W	
		400	400 W	
		600	600 W	
		750	750 W	
		900	900 W	
		1K0	1 kW	
(0)	Servomotor	1K5	1.5 kW	
(3)	Capacity	2K0	2 kW	
		3K0	3 kW	
		4K0	4 kW	
		4K5	4.5 kW	
		5K0	5 kW	
		6K0	6 kW	
		7K5	7.5 kW	
		11K0	11 kW	
		15K0	15 kW	
		10	1,000 r/min	
(1)	Rated Rotation	15	1,500 r/min	
(4)	Speed	20	2,000 r/min	
		30	3,000 r/min	
		F	400 VAC (with incremental encoder specifications)	INC
		н	200 VAC (with incremental encoder specifications)	INC
(5)	Applied Voltoge	L	100 VAC (with incremental encoder specifications)	INC
(5)	Applied Voltage	С	400 VAC (with absolute encoder specifications)	ABS/INC
		т	200VAC (with absolute encoder specifications)	ABS/INC
		S	100 VAC (with absolute encoder specifications)	ABS/INC
		Blank	Straight shaf	t
	Ontion	В	With brake	
(6)	Option	0	With oil seal	
		~		

Note: INC incremental encoder: 20bit

ABS/INC incremental encoder: 17bit, absolute encoder: 17bit

(5)

(5)

#### **Linear Motor** Iron-core linear motor **Motor Coil Unit**

#### R88L-EC -FW -03 03 -A NP C (1) (2) (3) (4) (5) (7) (6)

No	Item	Symbol	Specifications
(1)		G5-se	ries Linear Motor
(2)	Part Type	FW	Iron-core type Motor Coil Unit
		03	30mm
(3)	Effective Magnet Width	06	60mm
	<b>WIGHT</b>	11	110mm
		03	3-coil
		06	6-coil
(4)	Coil Model	09	9-coil
		12	12-coil
		15	15-coil
(5)	Version	А	Ver.A
(6)	Connector	NP	Not Provided
(7)	Туре	С	Compact type

Magnet Trac

R88L-EC -FM -03 096 -A

(1) (2)

(3) (4)

No	Item	Symbol	Specifications			
(1)		G5-series Linear Motor				
(2)	Part Type	FM	Iron-core type Magnet Trac			
		03	30mm			
(3)	Effective Magnet Width	06	60mm			
		11	110mm			
		096	96mm			
		144	144mm			
(4)	Magnet Trac Unit Length	192	192mm			
		288	288mm			
		384	384mm			
(5)	Version	А	Ver.A			

#### Ironless linear motor **Motor Coil Unit**

#### R88L-EC -GW -03 03 -A NP S (1) (3) (4) (5) (6) (7)(2)

No	Item	Symbol	Specifications			
(1)	G5-series Linear Motor					
(2)	Part Type	GW	Ironless type Motor Coil Unit			
		03	30mm			
(3)	Effective Magnet Width	05	50mm			
		07	70mm			
		03	3-coil			
(4)	Coil Model	06	6-coil			
		09	9-coil			
(5)	Version	А	Ver.A			
(6)	Connector	NP	Not Provided			
(7)	Туре	S	Standard type			

#### Magnet Trac

R88L-EC -GM -03 090 -A (2) (4) (1)

(3)

No Item Symbol Specifications (1) G5-series Linear Motor Ironless type Magnet Trac (2) Part Type GM 03 30mm Effective Magnet 05 50mm (3) Width 07 70mm 090 90mm 114mm 114 120 120mm 126 126mm 168 168mm Magnet Trac Unit (4) Length 171 171mm 210mm 210 390mm 390 456 456mm 546 546mm Version Ver.A (5) А

## Understanding Decelerator Model Numbers (Backlash = 3' Max./Backlash = 15' Max.)

Backlash = 15' Max.

R88G-HPG 14A 05 100 S B J (2) (3) (4) (5) (6) (7) (1)

R88G-VRSF 09 B 100

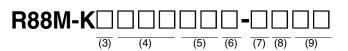
No	Item	Symbol	Specifications
(1)			ecelerator for
	GS	11B	omotors Backlash = 3' Max.
		14A	□40
		20A	
(2)	Flange Size Number	-	
	Number	32A 50A	□120 □170
		65A	230
		05	1/5
		09	1/9 (only frame number 11B)
		11	1/11 (except frame number 65A)
		12	1/12 (only frame number 65A)
(3)	Gear Ratio	20	1/20 (only frame number 65A)
		21	1/21 (except frame number 65A)
		25	1/25 (only frame number 65A)
		33	1/33
		45	1/45
		050	50 W
		100	100 W
		200	200 W
		400	400 W
		750	750 W
	Applicable	900	900 W
(4)	Servomotor	1K0	1 kW
	Capacity	1K5	1.5 kW
		2K0	2 kW
		3K0	3 kW
		4K0	4 kW
		4K5	4.5 kW
		5K0	5 kW
		Blank	3,000-r/min cylindrical servomotors
(5)	Motor Type	S	2,000-r/min cylindrical servomotors
		Т	1,000-r/min cylindrical servomotors
(6)	Backlash	В	Backlash = 3' Max
		Blank	Straight shaft
(7)	Option	J	With key and tap

	(1)		(2)         (3)         (4)         (5)         (6)         (7)			
No	Item	Symbol	Specifications			
(1)	G⊡-Se		ecelerator for motors Backlash = 15' Max.			
		05	1/5			
(0)	O Datia	09	1/9			
(2)	Gear Ratio	15	1/15			
		25	1/25			
	Flange Size Number	В	□52			
(3)		С	□78			
		D	□98			
		050	50 W			
	Applicable	100	100 W			
(4)	Servomotor	200	200 W			
	Capacity	400	400 W			
		750	750 W			
(5)	Motor Type	Blank	3,000-r/min cylindrical servomotors			
(6)	Backlash	С	Backlash = 15' Max			
(7)	Option	J	With key (without tap)			

CJ

Backlash = 3' Max.

## **Table of AC Servomotor Variations**



(3)	(4)	(5)				(	6)			(7	7)	8)	3)	(9	)
				Applied Voltage						With k	orake /				
	Applicable		Model	INC	INC	INC	ABS	ABS	ABS	Without brake		Model oil s		Shaft type	
Туре	Servomotor	Rotation speed	WOUEI	400	200	100	400	200	100	-	в	UIS	cais		
	Capacity			F	н	L	с	т	s	Blank	With brake	Blank	0	Blank	S2
	50 W		R88M-K05030 <b>*1</b>		$\checkmark$			$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$
	100 W	-	R88M-K10030		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	200 W	=	R88M-K20030		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	400 W	-	R88M-K40030		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	750 W	-	R88M-K75030	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	1 kW	3,000 r/min	R88M-K1K030	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	1.5 kW		R88M-K1K530	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	2 kW	-	R88M-K2K030	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	3 kW		R88M-K3K030	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	4 kW		R88M-K4K030	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	5 kW	-	R88M-K5K030	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	400 W		R88M-K40020	$\checkmark$			$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	600 W	-	R88M-K60020	$\checkmark$			$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Cylinder	1 kW	-	R88M-K1K020	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	1.5 kW	-	R88M-K1K520	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	2 kW	-	R88M-K2K020	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	3 kW	2,000 r/min	R88M-K3K020	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	4 kW	-	R88M-K4K020	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	5 kW	-	R88M-K5K020	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	7.5 kW	-	R88M-K7K515 *2				$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	11 kW	-	R88M-K11K015 *2				$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	15 kW	-	R88M-K15K015 *2				$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	900 W		R88M-K90010	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	2 kW		R88M-K2K010	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	3 kW	1,000 r/min	R88M-K3K010	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
	4.5 kW		R88M-K4K510				$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
	6 kW		R88M-K6K010				$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Blank: Cylinder type	example 030: 30 W 100: 100 W 1K0: 1 kW	10: 1,000 r/min 20: 2,000 r/min 30: 3,000 r/min		H: 200 L: 100 C: 400 T: 200	VAC (wi VAC (wi VAC (wi VAC (wi	th incrent th incrent th absol	nental er mental er nental er ute enco ute enco ute enco	ncoder) ncoder) der) AE der) AB	INC INC S/INC S/INC	Blank: Withou brake B: 24 VD With b	С	Blank: Withou seals O: With seals		Blank: Straigh S2: With ke tap	

**\*1.** R88M-K05030H-□, R88M-K05030T-□, can be used for Power Supply Voltage of 100/200VAC. **\*2.** The rated speed is 1,500 r/min.

## **Ordering Information**

## AC Servo Drives EtherCAT Communications

Specif	ications			
Power Model Supply Voltage	Applicable Servomotor Capacity	Model		
	50 W	R88D-KNA5L-ECT		
Single-phase	100 W	R88D-KN01L-ECT		
100 VAC	200 W	R88D-KN02L-ECT		
	400 W	R88D-KN04L-ECT		
	100 W	R88D-KN01H-ECT		
Single-	200 W	R88D-KN02H-ECT		
phase/three-	400 W	R88D-KN04H-ECT		
phase	750 W	R88D-KN08H-ECT		
200 VAC	1 kW	R88D-KN10H-ECT		
	1.5 kW	R88D-KN15H-ECT		
	2 kW	R88D-KN20H-ECT		
	3 kW	R88D-KN30H-ECT		
Three-phase 200 VAC	5 kW	R88D-KN50H-ECT		
200 1740	7.5 kW	R88D-KN75H-ECT		
	15 kW	R88D-KN150H-ECT		
	600 W	R88D-KN06F-ECT		
	1 kW	R88D-KN10F-ECT		
	1.5 kW	R88D-KN15F-ECT		
Three-phase	2 kW	R88D-KN20F-ECT		
400 VÁC	3 kW	R88D-KN30F-ECT		
	5 kW	R88D-KN50F-ECT		
	7.5 kW	R88D-KN75F-ECT		
	15 kW	R88D-KN150F-ECT		

#### General-purpose Inputs (Analog input/Pulse train input type)

Specif	ications	
Power Supply Voltage	Applicable Servomotor Capacity	Model
	50 W	R88D-KTA5L
Single-phase	100 W	R88D-KT01L
100 VAC	200 W	R88D-KT02L
	400 W	R88D-KT04L
	100 W	R88D-KT01H
Single-	200 W	R88D-KT02H
phase/three-	400 W	R88D-KT04H
phase	750 W	R88D-KT08H
200 VAC	1 kW	R88D-KT10H
	1.5 kW	R88D-KT15H
	2 kW	R88D-KT20H
	3 kW	R88D-KT30H
Three-phase 200 VAC	5 kW	R88D-KT50H
200 1740	7.5 kW	R88D-KT75H
	15 kW	R88D-KT150H
	600 W	R88D-KT06F
	1 kW	R88D-KT10F
	1.5 kW	R88D-KT15F
Three-phase	2 kW	R88D-KT20F
400 VÁC	3 kW	R88D-KT30F
	5 kW	R88D-KT50F
	7.5 kW	R88D-KT75F
	15 kW	R88D-KT150F

# Linear Motor with built-in EtherCAT communications

Specif	ications	
Power Supply Voltage	Applicable Servomotor Capacity	Model
<b>.</b>	100 W	R88D-KN01L-ECT-L
Single-phase 100 VAC	200 W	R88D-KN02L-ECT-L
	400 W	R88D-KN04L-ECT-L
	100 W	R88D-KN01H-ECT-L
Single-	200 W	R88D-KN02H-ECT-L
phase/three-	400 W	R88D-KN04H-ECT-L
phase 200 VAC	750 W	R88D-KN08H-ECT-L
200 VAC	1 kW	R88D-KN10H-ECT-L
	1.5 kW	R88D-KN15H-ECT-L
	600 W	R88D-KN06F-ECT-L
	1 kW	R88D-KN10F-ECT-L
Three-phase 400 VAC	1.5 kW	R88D-KN15F-ECT-L
	2 kW	R88D-KN20F-ECT-L
	3 kW	R88D-KN30F-ECT-L

#### **MECHATROLINK-II Communications**

Specif	ications	
Power Supply Voltage	Applicable Servomotor Capacity	Model
	50 W	R88D-KNA5L-ML2
Single-phase	100 W	R88D-KN01L-ML2
100 VAC	200 W	R88D-KN02L-ML2
	400 W	R88D-KN04L-ML2
	100 W	R88D-KN01H-ML2
Single-	200 W	R88D-KN02H-ML2
phase/three-	400 W	R88D-KN04H-ML2
phase 200 VAC	750 W	R88D-KN08H-ML2
200 VAC	1 kW	R88D-KN10H-ML2
	1.5 kW	R88D-KN15H-ML2
	2 kW	R88D-KN20H-ML2
Three-phase 200 VAC	3 kW	R88D-KN30H-ML2
200 17.0	5 kW	R88D-KN50H-ML2
	600 W	R88D-KN06F-ML2
	1 kW	R88D-KN10F-ML2
Three-phase	1.5 kW	R88D-KN15F-ML2
400 VAC	2 kW	R88D-KN20F-ML2
	3 kW	R88D-KN30F-ML2
	5 kW	R88D-KN50F-ML2

## **AC Servomotors**

### <Cylinder Type> 3,000-r/min servomotors

Rotatio	n speed Enco	der Option	
	INC	C Without key	
3,000	) r/min ABS/	INC With key	
		_	Model
	Specificat	ions	With incremental encoder
	<b>I</b>		Straight shaft with key and tap
	Voltage	Rated output	Without oil seals
		50 W	R88M-K05030H-S2
		100 W	R88M-K10030L-S2
	100 V	200 W	R88M-K20030L-S2
		400 W	R88M-K40030L-S2
		50 W	R88M-K05030H-S2
		100 W	R88M-K10030H-S2
		200 W	R88M-K20030H-S2
		400 W	R88M-K40030H-S2
		750 W	R88M-K75030H-S2
ake	200 V	1 kW	R88M-K1K030H-S2
tbra		1.5 kW	R88M-K1K530H-S2
inor		2 kW	R88M-K2K030H-S2
Without brake		3 kW	R88M-K3K030H-S2
-		4 kW	R88M-K4K030H-S2
		5 kW	R88M-K5K030H-S2
		750 W	R88M-K75030F-S2
		1 kW	R88M-K1K030F-S2
		1.5 kW	R88M-K1K530F-S2
	400 V	2 kW	R88M-K2K030F-S2
		3 kW	R88M-K3K030F-S2
		4 kW	R88M-K4K030F-S2
		5 kW	R88M-K5K030F-S2
		50 W	R88M-K05030H-BS2
	100 V	100 W	R88M-K10030L-BS2
		200 W	R88M-K20030L-BS2
		400 W	R88M-K40030L-BS2
		50 W	R88M-K05030H-BS2
		100 W	R88M-K10030H-BS2
		200 W	R88M-K20030H-BS2
		400 W	R88M-K40030H-BS2
		750 W	R88M-K75030H-BS2
ake	200 V	1 kW	R88M-K1K030H-BS2
With brake		1.5 kW	R88M-K1K530H-BS2
With		2 kW	R88M-K2K030H-BS2 R88M-K3K030H-BS2
-		3 kW	
		4 kW 5 kW	R88M-K4K030H-BS2 R88M-K5K030H-BS2
		750 W	R88M-K75030F-BS2
		1 kW	R88M-K1K030F-BS2
		1.5 kW	R88M-K1K530F-BS2
	400 V	2 kW	R88M-K2K030F-BS2
	400 V	2 kW 3 kW	R88M-K3K030F-BS2
		4 kW	R88M-K4K030F-BS2
		5 kW	R88M-K5K030F-BS2
Nata	Madalawi		

			-			
Note	: Models	with	oil seals	are also	available	

Rotation speed	Encoder	Option	
2.000 r/min	INC	Without key	
3,000 r/min	ABS/INC	With key	

			Model				
	Specificat	ions	With incremental encoder				
			Straight shaft without key				
	Voltage	Rated output	Without oil seals				
		50 W	R88M-K05030H				
	100 V	100 V	100 W	R88M-K10030L			
		200 W	R88M-K20030L				
		400 W	R88M-K40030L				
		50 W	R88M-K05030H				
		100 W	R88M-K10030H				
		200 W	R88M-K20030H				
		400 W	R88M-K40030H				
đ		750 W	R88M-K75030H				
Without brake	200 V	1 kW	R88M-K1K030H				
ut b		1.5 kW	R88M-K1K530H				
tho		2 kW	R88M-K2K030H				
Ň		3 kW	R88M-K3K030H				
		4 kW	R88M-K4K030H				
		5 kW	R88M-K5K030H				
		750 W	R88M-K75030F				
		1 kW	R88M-K1K030F				
		1.5 kW	R88M-K1K530F				
	400 V	2 kW	R88M-K2K030F				
		3 kW	R88M-K3K030F				
		4 kW	R88M-K4K030F				
		5 kW	R88M-K5K030F				
	100 V	50 W	R88M-K05030H-B				
		100 W	R88M-K10030L-B				
		200 W	R88M-K20030L-B				
		400 W	R88M-K40030L-B				
		50 W	R88M-K05030H-B				
		100 W	R88M-K10030H-B				
		200 W	R88M-K20030H-B				
		400 W	R88M-K40030H-B				
	000 V	750 W	R88M-K75030H-B				
ake	200 V	1 kW	R88M-K1K030H-B				
With brake		1.5 kW	R88M-K1K530H-B				
Vit		2 kW	R88M-K2K030H-B				
-		3 kW	R88M-K3K030H-B				
		4 kW	R88M-K4K030H-B				
		5 kW	R88M-K5K030H-B				
		750 W	R88M-K75030F-B				
		1 kW	R88M-K1K030F-B				
	400 V	1.5 kW	R88M-K1K530F-B				
	400 V	2 kW	R88M-K2K030F-B				
		3 kW	R88M-K3K030F-B				
		4 kW	R88M-K4K030F-B				
		5 kW	R88M-K5K030F-B				

# AC Servomotor/Drive G5-series

tatio	n speed	Encoder	Option			
000		INC	Without key			
000	) r/min	ABS/INC	With key			
				Model		
	Spec	ification	s	With absolute encoder		
				Straight shaft withkey and tap		
	Volta	age	Rated output	Without oil seals		
			50 W	R88M-K05030T-S2		
			100 W	R88M-K10030S-S2		
	100	v	200 W	R88M-K20030S-S2		
			400 W	R88M-K40030S-S2		
			50 W	R88M-K05030T-S2		
			100 W	R88M-K10030T-S2		
			200 W	R88M-K20030T-S2		
			400 W	R88M-K40030T-S2		
			750 W	R88M-K75030T-S2		
2	200		1 kW	R88M-K1K030T-S2		
			1.5 kW	R88M-K1K530T-S2		
5			2 kW	R88M-K2K030T-S2		
			3 kW	R88M-K3K030T-S2		
			4 kW	R88M-K4K030T-S2		
			5 kW	R88M-K5K030T-S2		
		750 W	R88M-K75030C-S2			
			1 kW	R88M-K1K030C-S2		
		1.5 kW	R88M-K1K530C-S2			
	400	v	2 kW	R88M-K2K030C-S2		
						3 kW
			4 kW	R88M-K4K030C-S2		
			5 kW	R88M-K5K030C-S2		
			50 W	R88M-K05030T-BS2		
	4.00		100 W	R88M-K10030S-BS2		
	100		200 W	R88M-K20030S-BS2		
			400 W	R88M-K40030S-BS2		
			50 W	R88M-K05030T-BS2		
			100 W	R88M-K10030T-BS2		
			200 W	R88M-K20030T-BS2		
			400 W	R88M-K40030T-BS2		
			750 W	R88M-K75030T-BS2		
	200	v	1 kW	R88M-K1K030T-BS2		
			1.5 kW	R88M-K1K530T-BS2		
			2 kW	R88M-K2K030T-BS2		
:			3 kW	R88M-K3K030T-BS2		
			4 kW	R88M-K4K030T-BS2		
			5 kW	R88M-K5K030T-BS2		
			750 W	R88M-K75030C-BS2		
			1 kW	R88M-K1K030C-BS2		
			1.5 kW	R88M-K1K530C-BS2		
	400	v	2 kW	R88M-K2K030C-BS2		
			3 kW	R88M-K3K030C-BS2		
		4 kW	R88M-K4K030C-BS2			

 Rotation speed
 Encoder
 Option

 3,000 r/min
 INC
 Without key

 ABS/INC
 With key

			Model
Specifications			With absolute encoder
			Straight shaft without key
	Voltage	Rated output	Without oil seals
		50 W	R88M-K05030T
	100.1/	100 W	R88M-K10030S
	100 V	200 W	R88M-K20030S
		400 W	R88M-K40030S
		50 W	R88M-K05030T
		100 W	R88M-K10030T
		200 W	R88M-K20030T
		400 W	R88M-K40030T
		750 W	R88M-K75030T
ake	200 V	1 kW	R88M-K1K030T
it br		1.5 kW	R88M-K1K530T
Without brake		2 kW	R88M-K2K030T
Wit		3 kW	R88M-K3K030T
		4 kW	R88M-K4K030T
		5 kW	R88M-K5K030T
		750 W	R88M-K75030C
		1 kW	R88M-K1K030C
		1.5 kW	R88M-K1K530C
	400 V	2 kW	R88M-K2K030C
		3 kW	R88M-K3K030C
		4 kW	R88M-K4K030C
		5 kW	R88M-K5K030C
	100 V	50 W	R88M-K05030T-B
		100 W	R88M-K10030S-B
		200 W	R88M-K20030S-B
		400 W	R88M-K40030S-B
		50 W	R88M-K05030T-B
		100 W	R88M-K10030T-B
		200 W	R88M-K20030T-B
		400 W	R88M-K40030T-B
		750 W	R88M-K75030T-B
brake	200 V	1 kW	R88M-K1K030T-B
		1.5 kW	R88M-K1K530T-B
With		2 kW	R88M-K2K030T-B
		3 kW 4 kW	R88M-K3K030T-B
			R88M-K4K030T-B R88M-K5K030T-B
		5 kW 750 W	R88M-K75030C-B
		1 kW	R88M-K1K030C-B
		1.5 kW	
	400 V	2 kW	R88M-K2K030C-B
	400 V	2 kW 3 kW	R88M-K3K030C-B
		3 kW 4 kW	R88M-K4K030C-B
		5 kW	R88M-K5K030C-B
Noto		5 KW	Room-NoNUSUC-D

#### 2,000-r/min servomotors

Rotation speed	Encoder	Option
0.000 r/min	INC	Without key
2,000 r/min	ABS/INC	With key

			Model	
Specifications			With incremental encoder	
			Straight shaft with key and tap	
	Voltage	Rated output	Without oil seals	
		1 kW	R88M-K1K020H-S2	
		1.5 kW	R88M-K1K520H-S2	
	200 V	2 kW	R88M-K2K020H-S2	
	200 V	3 kW	R88M-K3K020H-S2	
		4 kW	R88M-K4K020H-S2	
ake		5 kW	R88M-K5K020H-S2	
tbr		400 W	R88M-K40020F-S2	
Without brake		600 W	R88M-K60020F-S2	
With	400 V	1 kW	R88M-K1K020F-S2	
-		1.5 kW	R88M-K1K520F-S2	
		2 kW	R88M-K2K020F-S2	
		3 kW	R88M-K3K020F-S2	
		4 kW	R88M-K4K020F-S2	
		5 kW	R88M-K5K020F-S2	
	200 V	1 kW	R88M-K1K020H-BS2	
		1.5 kW	R88M-K1K520H-BS2	
		2 kW	R88M-K2K020H-BS2	
		3 kW	R88M-K3K020H-BS2	
		4 kW	R88M-K4K020H-BS2	
e		5 kW	R88M-K5K020H-BS2	
bral		400 W	R88M-K40020F-BS2	
With brake		600 W	R88M-K60020F-BS2	
≥		1 kW	R88M-K1K020F-BS2	
	400 V	1.5 kW	R88M-K1K520F-BS2	
	400 V	2 kW	R88M-K2K020F-BS2	
		3 kW	R88M-K3K020F-BS2	
		4 kW	R88M-K4K020F-BS2	
		5 kW	R88M-K5K020F-BS2	

Note: Models with oil seals are also available.

Rotation speed	Encoder	Option
0.000 r/min	INC	Without key
2,000 r/min	ABS/INC	With key

		Model
Specificat	ions	With incremental encoder
		Straight shaft without key
Voltage	Rated output	Without oil seals
	1 kW	R88M-K1K020H
	1.5 kW	R88M-K1K520H
200 V	2 kW	R88M-K2K020H
200 V	3 kW	R88M-K3K020H
	4 kW	R88M-K4K020H
	5 kW	R88M-K5K020H
	400 W	R88M-K40020F
	600 W	R88M-K60020F
	1 kW	R88M-K1K020F
400 V	1.5 kW	R88M-K1K520F
400 V	2 kW	R88M-K2K020F
	3 kW	R88M-K3K020F
	4 kW	R88M-K4K020F
	5 kW	R88M-K5K020F
200 V	1 kW	R88M-K1K020H-B
	1.5 kW	R88M-K1K520H-B
	2 kW	R88M-K2K020H-B
	3 kW	R88M-K3K020H-B
	4 kW	R88M-K4K020H-B
	5 kW	R88M-K5K020H-B
	400 W	R88M-K40020F-B
	600 W	R88M-K60020F-B
	1 kW	R88M-K1K020F-B
400 V	1.5 kW	R88M-K1K520F-B
400 V	2 kW	R88M-K2K020F-B
	3 kW	R88M-K3K020F-B
	4 kW	R88M-K4K020F-B
	5 kW	R88M-K5K020F-B
	Voltage 200 V 400 V 200 V 400 V	Voltage         output           1 kW         1.5 kW           2 kW         3 kW           4 kW         5 kW           4 kW         5 kW           400 V         600 W           1 kW         1.5 kW           400 V         600 W           1 kW         1.5 kW           2 kW         3 kW           4 kW         5 kW           200 V         2 kW           3 kW         4 kW           5 kW         3 kW           4 kW         5 kW           200 V         2 kW           3 kW         4 kW           5 kW         1 kW           1.5 kW         2 kW           3 kW         4 kW           5 kW         600 W           1 kW         1.5 kW           2 kW         3 kW           400 V         600 W           1 kW         1.5 kW           2 kW         3 kW           4 kW         5 kW

# AC Servomotor/Drive G5-series

Rotation	speed	Encode	r Option	
2.000		INC	Without key	
2,000	r/min	ABS/IN	C With key	
				Model
Specifications			ne	With absolute encoder
	opec	incatio	15	Straight shaft with key and tap
Batad		Rated		
	Volta	age	output	Without oil seals
			1 kW	R88M-K1K020T-S2
			1.5 kW	R88M-K1K520T-S2
			2 kW	R88M-K2K020T-S2
			3 kW	R88M-K3K020T-S2
	200	v	4 kW	R88M-K4K020T-S2
			5 kW	R88M-K5K020T-S2
			7.5 kW	R88M-K7K515T-S2 *
			11 kW	R88M-K11K015T-S2 *
Without brake			15 kW	R88M-K15K015T-S2 *
ut bi			400 W	R88M-K40020C-S2
thou			600 W	R88M-K60020C-S2
Ň			1 kW	R88M-K1K020C-S2
			1.5 kW	R88M-K1K520C-S2
			2 kW	R88M-K2K020C-S2
	400		3 kW	R88M-K3K020C-S2
			4 kW	R88M-K4K020C-S2
			5 kW	R88M-K5K020C-S2
			7.5 kW	R88M-K7K515C -S2 *
			11 kW	R88M-K11K015C-S2 *
			15 kW	R88M-K15K015C-S2 *
			1 kW	R88M-K1K020T-BS2
			1.5 kW	R88M-K1K520T-BS2
			2 kW	R88M-K2K020T-BS2
			3 kW	R88M-K3K020T-BS2
	200	v	4 kW	R88M-K4K020T-BS2
			5 kW	R88M-K5K020T-BS2
		-	7.5 kW	R88M-K7K515T-BS2 *
		-	11 kW	R88M-K11K015T-BS2 *
brake			15 kW 400 W	R88M-K15K015T-BS2 * R88M-K40020C-BS2
-		-		
With		-	600 W 1 kW	R88M-K60020C-BS2 R88M-K1K020C-BS2
		-	1.5 kW	R88M-K1K520C-BS2
		-	2 kW	R88M-K2K020C-BS2
	400	v	2 kW 3 kW	R88M-K3K020C-BS2
	100	. –	4 kW	R88M-K4K020C-BS2
		-	4 KW 5 kW	R88M-K5K020C-BS2
		-	7.5 kW	R88M-K7K515C-BS2 *
		-	11 kW	R88M-K11K015C-BS2 *
		-	15 kW	R88M-K15K015C-BS2 *
lote: I	Mode	ls with		are also available.

 Rotation speed
 Encoder
 Option

 2,000 r/min
 INC
 Without key

 ABS/INC
 With key

			Model
Specifications			With absolute encoder
			Straight shaft without key
	Voltage	Rated output	Without oil seals
		1 kW	R88M-K1K020T
		1.5 kW	R88M-K1K520T
		2 kW	R88M-K2K020T
		3 kW	R88M-K3K020T
	200 V	4 kW	R88M-K4K020T
		5 kW	R88M-K5K020T
		7.5 kW	R88M-K7K515T *
		11 kW	R88M-K11K015T *
Without brake		15 kW	R88M-K15K015T *
tbr		400 W	R88M-K40020C
nou		600 W	R88M-K60020C
Wit		1 kW	R88M-K1K020C
-		1.5 kW	R88M-K1K520C
		2 kW	R88M-K2K020C
	400 V	3 kW	R88M-K3K020C
		4 kW	R88M-K4K020C
		5 kW	R88M-K5K020C
		7.5 kW	R88M-K7K515C *
		11 kW	R88M-K11K015C *
		15 kW	R88M-K15K015C *
		1 kW	R88M-K1K020T-B
		1.5 kW	R88M-K1K520T-B
		2 kW	R88M-K2K020T-B
		3 kW	R88M-K3K020T-B
	200 V	4 kW	R88M-K4K020T-B
		5 kW	R88M-K5K020T-B
		7.5 kW	R88M-K7K515T-B *
		11 kW	R88M-K11K015T-B *
ě		15 kW	R88M-K15K015T-B *
With brake		400 W	R88M-K40020C-B
/ith		600 W	R88M-K60020C-B
3		1 kW	R88M-K1K020C-B
		1.5 kW	R88M-K1K520C-B
		2 kW	R88M-K2K020C-B
	400 V	3 kW	R88M-K3K020C-B
		4 kW	R88M-K4K020C-B
		5 kW	R88M-K5K020C-B
		7.5 kW	R88M-K7K515C-B *
		11 kW	R88M-K11K015C-B *
		15 kW	R88M-K15K015C-B *

Note: Models with oil seals are also available. \* The rated speed is 1,500 r/min.

**Note:** Models with oil seals are also available. **\*** The rated speed is 1,500 r/min.

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#### 1,000-r/min servomotors

otatio	n speed	Encode	r Option	
		INC	Without key	
1,000	) r/min	ABS/IN0	With key	
				Model
	•			
	Spec	cificatio	ns	With incremental encoder
				Straight shaft with key and tap
	Volt	age	Rated output	Without oil seals
	200 V		900 W	R88M-K90010H-S2
ake		v	2 kW	R88M-K2K010H-S2
ţ			3 kW	R88M-K3K010H-S2
in or			900 W	R88M-K90010F-S2
Without brake	400	v	2 kW	R88M-K2K010F-S2
			3 kW	R88M-K3K010F-S2
			900 W	R88M-K90010H-BS2
With brake	200	v	2 kW	R88M-K2K010H-BS2
			3 kW	R88M-K3K010H-BS2
			900 W	R88M-K90010F-BS2
>	400	v	2 kW	R88M-K2K010F-BS2
			3 kW	R88M-K3K010F-BS2

Note: Models with oil seals are also available.

Rotation speed	Encoder	Option
1 000 r/min	INC	Without key
1,000 r/min	ABS/INC	With key

			Model	
	Specificat	ions	With incremental encoder	
			Straight shaft without key	
	Voltage Rated output		Without oil seals	
		900 W	R88M-K90010H	
ake	200 V	2 kW	R88M-K2K010H	
Without brake		3 kW	R88M-K3K010H	
ηοι	400 V	900 W	R88M-K90010F	
VitI		2 kW	R88M-K2K010F	
-		3 kW	R88M-K3K010F	
	200 V	900 W	R88M-K90010H-B	
e		2 kW	R88M-K2K010H-B	
With brake		3 kW	R88M-K3K010H-B	
ith		900 W	R88M-K90010F-B	
Š	400 V	2 kW	R88M-K2K010F-B	
		3 kW	R88M-K3K010F-B	
Note	Inte: Models with oil seals are also available			

Note: Models with oil seals are also available.

Rotation speed	Encoder	Option
1.000 r/min	INC	Without key
1,000 r/min	ABS/INC	With key

			Model
	Specificat	ions	With absolute encoder
			Straight shaft without key
	Voltage Rated output		Without oil seals
		900 W	R88M-K90010T
		2 kW	R88M-K2K010T
	200 V	3 kW	R88M-K3K010T
ake		4.5 kW	R88M-K4K510T
Without brake		6 kW	R88M-K6K010T
nou	400 V	900 W	R88M-K90010C
Vit		2 kW	R88M-K2K010C
		3 kW	R88M-K3K010C
		4.5 kW	R88M-K4K510C
		6 kW	R88M-K6K010C
	200 V	900 W	R88M-K90010T-B
		2 kW	R88M-K2K010T-B
		3 kW	R88M-K3K010T-B
ê		4.5 kW	R88M-K4K510T-B
With brake		6 kW	R88M-K6K010T-B
Ę		900 W	R88M-K90010C-B
>		2 kW	R88M-K2K010C-B
	400 V	3 kW	R88M-K3K010C-B
		4.5 kW	R88M-K4K510C-B
		6 kW	R88M-K6K010C-B
Note: Models with oil seals are also available.			

Ordering Information

Rotation speed	Encoder	Option
1,000 r/min	INC	Without key
1,000 f/min	ABS/INC	With key

Specifications			Model	
			With absolute encoder	
			Straight shaft with key and tap	
	Voltage Rated output		Without oil seals	
		900 W	R88M-K90010T-S2	
		2 kW	R88M-K2K010T-S2	
	200 V	3 kW	R88M-K3K010T-S2	
ake		4.5 kW	R88M-K4K510T-S2	
Without brake		6 kW	R88M-K6K010T-S2	
nou	400 V	900 W	R88M-K90010C-S2	
Vit		2 kW	R88M-K2K010C-S2	
		3 kW	R88M-K3K010C-S2	
		4.5 kW	R88M-K4K510C-S2	
		6 kW	R88M-K6K010C-S2	
	200 V	900 W	R88M-K90010T-BS2	
		2 kW	R88M-K2K010T-BS2	
		3 kW	R88M-K3K010T-BS2	
ê		4.5 kW	R88M-K4K510T-BS2	
With brake		6 kW	R88M-K6K010T-BS2	
ith		900 W	R88M-K90010C-BS2	
>		2 kW	R88M-K2K010C-BS2	
	400 V	3 kW	R88M-K3K010C-BS2	
		4.5 kW	R88M-K4K510C-BS2	
		6 kW	R88M-K6K010C-BS2	
Note:	Note: Models with oil seals are also available.			

## Linear Motors <u>NEW</u> <Iron-core motor type> Motor Coil Unit

Motor Coil Unit model	Continuous force [N]	Momentary maximum force [N]
R88L-EC-FW-0303-ANPC	48	105
R88L-EC-FW-0306-ANPC	96	210
R88L-EC-FW-0606-ANPC	160	400
R88L-EC-FW-0609-ANPC	240	600
R88L-EC-FW-0612-ANPC	320	800
R88L-EC-FW-1112-ANPC	608	1600
R88L-EC-FW-1115-ANPC	760	2000

#### Magnet Trac

Magnet Trac model	Magnet Trac Unit Length (mm)
R88L-EC-FM-03096-A	96
R88L-EC-FM-03144-A	144
R88L-EC-FM-03384-A	384
R88L-EC-FM-06192-A	192
R88L-EC-FM-06288-A	288
R88L-EC-FM-11192-A	192
R88L-EC-FM-11288-A	288

#### <Ironless motor type> Motor Coil Unit

Motor Coil Unit model	Continuous force [N]	Momentary maximum force [N]
R88L-EC-GW-0303-ANPS	26.5	96
R88L-EC-GW-0306-ANPS	53	200
R88L-EC-GW-0309-ANPS	80	300
R88L-EC-GW-0503-ANPS	58	240
R88L-EC-GW-0506-ANPS	117	480
R88L-EC-GW-0509-ANPS	175	720
R88L-EC-GW-0703-ANPS	117	552
R88L-EC-GW-0706-ANPS	232	1110
R88L-EC-GW-0709-ANPS	348	1730

#### Magnet Trac

Magnet Trac model	Magnet Trac Unit Length (mm)
R88L-EC-GM-03090-A	90
R88L-EC-GM-03120-A	120
R88L-EC-GM-03390-A	390
R88L-EC-GM-05126-A	126
R88L-EC-GM-05168-A	168
R88L-EC-GM-05210-A	210
R88L-EC-GM-05546-A	546
R88L-EC-GM-07114-A	114
R88L-EC-GM-07171-A	171
R88L-EC-GM-07456-A	456

#### **Combination table**

Motor Coil Unit and Magnet Trac Combinations

#### Iron-core motor type

Motor Coil Unit model	Magnet Trac model
R88L-EC-FW-0303-ANPC R88L-EC-FW-0306-ANPC	R88L-EC-FM-03096-A R88L-EC-FM-03144-A R88L-EC-FM-03384-A
R88L-EC-FW-0606-ANPC R88L-EC-FW-0609-ANPC R88L-EC-FW-0612-ANPC	R88L-EC-FM-06192-A R88L-EC-FM-06288-A
R88L-EC-FW-1112-ANPC R88L-EC-FW-1115-ANPC	R88L-EC-FM-11192-A R88L-EC-FM-11288-A

#### Ironless motor type

Motor Coil Unit model	Magnet Trac model
R88L-EC-GW-0303-ANPS R88L-EC-GW-0306-ANPS R88L-EC-GW-0309-ANPS	R88L-EC-GM-03090-A R88L-EC-GM-03120-A R88L-EC-GM-03390-A
R88L-EC-GW-0503-ANPS R88L-EC-GW-0506-ANPS R88L-EC-GW-0509-ANPS	R88L-EC-GM-05126-A R88L-EC-GM-05168-A R88L-EC-GM-05210-A R88L-EC-GM-05546-A
R88L-EC-GW-0703-ANPS R88L-EC-GW-0706-ANPS R88L-EC-GW-0709-ANPS	R88L-EC-GM-07114-A R88L-EC-GM-07171-A R88L-EC-GM-07456-A

## Decelerators (Backlash = 3' Max./Backlash = 15' Max.)

## Backlash = 3' Max <Cylinder Type> ● 3,000-r/min servomotors Straight shaft without key

Motor capacity	Gear Ratio	Model (Straight shaft)	
	1/5	R88G-HPG11B05100B	
	1/9	R88G-HPG11B09050B	
50 W	1/21	R88G-HPG14A21100B	
	1/33	R88G-HPG14A33050B	
	1/45	R88G-HPG14A45050B	
	1/5	R88G-HPG11B05100B	
	1/11	R88G-HPG14A11100B	
100 W	1/21	R88G-HPG14A21100B	
	1/33	R88G-HPG20A33100B	
	1/45	R88G-HPG20A45100B	
	1/5	R88G-HPG14A05200B	
	1/11	R88G-HPG14A11200B	
200 W	1/21	R88G-HPG20A21200B	
	1/33	R88G-HPG20A33200B	
	1/45	R88G-HPG20A45200B	
	1/5	R88G-HPG14A05400B	
	1/11	R88G-HPG20A11400B	
400 W	1/21	R88G-HPG20A21400B	
	1/33	R88G-HPG32A33400B	
	1/45	R88G-HPG32A45400B	
	1/5	R88G-HPG20A05750B	
	1/11	R88G-HPG20A11750B	
750 W	1/21	R88G-HPG32A21750B	
(200 V)	1/33	R88G-HPG32A33750B	
	1/45	R88G-HPG32A45750B	
	1/5	R88G-HPG32A052K0B	
	1/11	R88G-HPG32A112K0B	
750W	1/21	R88G-HPG32A211K5B	
(400 V)	1/33	R88G-HPG32A33600SB	
	1/45	R88G-HPG50A451K5B	
	1/5	R88G-HPG32A052K0B	
	1/11	R88G-HPG32A112K0B	
1kW	1/21	R88G-HPG32A211K5B	
	1/33	R88G-HPG50A332K0B	
	1/45	R88G-HPG50A451K5B	
	1/5	R88G-HPG32A052K0B	
	1/11	R88G-HPG32A112K0B	
1.5kW	1/21	R88G-HPG32A211K5B	
	1/33	R88G-HPG50A332K0B	
	1/45	R88G-HPG50A451K5B	
	1/5	R88G-HPG32A052K0B	
	1/11	R88G-HPG32A112K0B	
2kW	1/21	R88G-HPG50A212K0B	
	1/33	R88G-HPG50A332K0B	
	1/5	R88G-HPG32A053K0B	
3kW	1/11	R88G-HPG50A113K0B	
	1/21	R88G-HPG50A213K0B	
	1/5	R88G-HPG32A054K0B	
4kW	1/11	R88G-HPG50A115K0B	
	1/5	R88G-HPG50A055K0B	
5kW			
	1/11	R88G-HPG50A115K0B	

Note: 1. The standard models have a straight shaft.

 To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

### ● 2,000-r/min servomotors

Straight shaft without key		thout key
Motor capacity	Gear Ratio	Model (Straight shaft)
	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
400 W	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG32A33600SB
	1/45	R88G-HPG32A45400SB
	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
600 W	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG32A33600SB
	1/45	R88G-HPG50A451K5B
	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
1 kW	1/21	R88G-HPG32A211K0SB
	1/33	R88G-HPG50A332K0SB
	1/45	R88G-HPG50A451K0SB
	1/5	R88G-HPG32A053K0B
	1/11	R88G-HPG32A112K0SB
1.5 kW	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
	1/5	R88G-HPG32A053K0B
2 kW	1/11	R88G-HPG32A112K0SB
ZKVV	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
	1/5	R88G-HPG32A054K0B
3 kW	1/11	R88G-HPG50A115K0B
JKVV	1/21	R88G-HPG50A213K0SB
	1/25	R88G-HPG65A253K0SB
	1/5	R88G-HPG50A055K0SB
4 1/1/	1/11	R88G-HPG50A115K0SB
4 kW	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB
	1/5	R88G-HPG50A055K0SB
5 kW	1/11	R88G-HPG50A115K0SB
5 KVV	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB

Note: 1. The standard models have a straight shaft.
2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

### ● 1,000-r/min servomotors

Straight shaft without key

Motor capacity	Gear Ratio	Model (Straight shaft)	
	1/5	R88G-HPG32A05900TB	
900 W	1/11	R88G-HPG32A11900TB	
900 W	1/21	R88G-HPG50A21900TB	
	1/33	R88G-HPG50A33900TB	
2 kW 1/	1/5	R88G-HPG32A052K0TB	
	1/11	R88G-HPG50A112K0TB	
	1/21	R88G-HPG50A212K0TB	
	1/25	R88G-HPG65A255K0SB	
3 kW 1/5 1/11 1/20 1/25	1/5	R88G-HPG50A055K0SB	
	1/11	R88G-HPG50A115K0SB	
	1/20	R88G-HPG65A205K0SB	
	1/25	R88G-HPG65A255K0SB	

Note: 1. The standard models have a straight shaft.
2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.

#### Backlash = 15' Max <Cylinder Type> • 3,000-r/min servomotors

Straight shaft with key

Straight shart with Key			
Motor capacity	Gear Ratio	Model (Straight shaft)	
	1/5	R88G-VRSF05B100CJ	
50 W	1/9	R88G-VRSF09B100CJ	
50 W	1/15	R88G-VRSF15B100CJ	
	1/25	R88G-VRSF25B100CJ	
	1/5	R88G-VRSF05B100CJ	
100 W	1/9	R88G-VRSF09B100CJ	
100 W	1/15	R88G-VRSF15B100CJ	
	1/25	R88G-VRSF25B100CJ	
200 W	1/5	R88G-VRSF05B200CJ	
	1/9	R88G-VRSF09C200CJ	
	1/15	R88G-VRSF15C200CJ	
	1/25	R88G-VRSF25C200CJ	
1/5		R88G-VRSF05C400CJ	
400 W	1/9	R88G-VRSF09C400CJ	
400 W	1/15	R88G-VRSF15C400CJ	
	1/25	R88G-VRSF25C400CJ	
	1/5	R88G-VRSF05C750CJ	
750 W	1/9	R88G-VRSF09D750CJ	
750 W	1/15	R88G-VRSF15D750CJ	
	1/25	R88G-VRSF25D750CJ	

## **Accessories and Cables**

## ■ Connection Cables (Power Cables, Brake Cables, Encoder Cables) <Non-flexible Cables>

Power cable

Onesitient		Without brake	With brake
Specifications		Model	Model
	3 m	R88A-CAKA003S	
	5 m	R88A-CAKA005S	
	10 m	R88A-CAKA010S	
100 V/200 V]	15m	R88A-CAKA015S	
,000-r/min Servomotors of 50 to 750 W	20 m	R88A-CAKA020S	
	30 m	R88A-CAKA030S	
	40 m	R88A-CAKA040S	
	50 m	R88A-CAKA050S	
	3 m	R88A-CAGB003S	R88A-CAGB003B
	5 m	R88A-CAGB005S	R88A-CAGB005B
200 V]	10 m	R88A-CAGB010S	R88A-CAGB010B
3,000-r/min Servomotors of 1 to 2 kW	15 m	R88A-CAGB015S	R88A-CAGB015B
2,000-r/min Servomotors of 1 to 2 kW I,000-r/min Servomotors of 900 W	20 m	R88A-CAGB020S	R88A-CAGB020B
	30 m	R88A-CAGB030S	R88A-CAGB030B
	40 m	R88A-CAGB040S	R88A-CAGB040B
	50 m	R88A-CAGB050S	R88A-CAGB050B
	3 m	R88A-CAGB003S	R88A-CAKF003B
	5 m	R88A-CAGB005S	R88A-CAKF005B
400 V]	10 m	R88A-CAGB010S	R88A-CAKF010B
3,000-r/min Servomotors of 750 W to 2 kW	15 m	R88A-CAGB015S	R88A-CAKF015B
2,000-r/min Servomotors of 400 W to 2 kW	20 m	R88A-CAGB020S	R88A-CAKF020B
	30 m	R88A-CAGB030S	R88A-CAKF030B
	40 m	R88A-CAGB040S	R88A-CAKF040B
	50 m	R88A-CAGB050S	R88A-CAKF050B
	3 m	R88A-CAGD003S	R88A-CAGD003B
	5 m	R88A-CAGD005S	R88A-CAGD005B
200 V] [400 V]	10 m	R88A-CAGD010S	R88A-CAGD010B
3,000-r/min Servomotors of 3 to 5 kW	15 m	R88A-CAGD015S	R88A-CAGD015B
2,000-r/min Servomotors of 3 to 5 kW	20 m	R88A-CAGD020S	R88A-CAGD020B
	30 m	R88A-CAGD030S	R88A-CAGD030B
	40 m	R88A-CAGD040S	R88A-CAGD040B
	50 m	R88A-CAGD050S	R88A-CAGD050B
	3 m	R88A-CAGE003S	
	5 m	R88A-CAGE005S	
	10 m	R88A-CAGE010S	
[200 V] [400 V] 1,500-r/min Servomotors of 7.5 kW	15 m	R88A-CAGE015S	
I,000-r/min Servomotors of 6 kW	20 m	R88A-CAGE020S	
	30 m	R88A-CAGE030S	
	40 m	R88A-CAGE040S	
	50 m	R88A-CAGE050S	

Note: 1. Different connectors are used for the motor power and the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to 750 W and Servomotors of 6 to 15 kW. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.

2. For non-flexible power cables for Servomotors of 11 or 15 kW, refer to the G5 series USER'S MANUAL and make your own cable. Confirm the Manual No. that is listed in Related Manuals.

## Brake Cable

Specifications		Non-flexible Cables	
		Model	
	3 m	R88A-CAKA003B	
	5 m	R88A-CAKA005B	
[100 V][200 V]	10 m	R88A-CAKA010B	
3,000-r/min	15 m	R88A-CAKA015B	
Servomotors of	20 m	R88A-CAKA020B	
50 to 750 W	30 m	R88A-CAKA030B	
	40 m	R88A-CAKA040B	
	50 m	R88A-CAKA050B	
	3 m	R88A-CAGE003B	
[200 V][400 V]	5 m	R88A-CAGE005B	
1,500-r/min	10 m	R88A-CAGE010B	
Servomotors of 7.5 to 15 kW	15 m	R88A-CAGE015B	
1,000-r/min	20 m	R88A-CAGE020B	
Servomotors of	30 m	R88A-CAGE030B	
6 kW	40 m	R88A-CAGE040B	
	50 m	R88A-CAGE050B	

Encoder Cable			
0		Non-flexible Cables	
Specification	IS	Model	
	3 m	R88A-CRKA003C	
	5 m	R88A-CRKA005C	
[100 V/200 V]	10 m	R88A-CRKA010C	
3,000-r/min	15 m	R88A-CRKA015C	
Servomotors of 50 to 750 W	20 m	R88A-CRKA020C	
	30 m	R88A-CRKA030C	
	40 m	R88A-CRKA040C	
	50 m	R88A-CRKA050C	
[100 V and 200 V] 3,000-r/min Servomotors	3 m	R88A-CRKC003N	
	5 m	R88A-CRKC005N	
of 1.0 kW or more 2,000-r/min Servomotors	10 m	R88A-CRKC010N	
1,500-r/min Servomotors 1,000-r/min Servomotors	15 m	R88A-CRKC015N	
[400 V]	20 m	R88A-CRKC020N	
3,000-r/min Servomotors 2,000-r/min Servomotors	30 m	R88A-CRKC030N	
1,500-r/min Servomotors 1,000-r/min Servomotors	40 m	R88A-CRKC040N	
	50 m	R88A-CRKC050N	

## <Flexible Cables>

**Power cable** 

Specifications		Without brake	With brake
opecifications		Model	Model
	3 m	R88A-CAKA003SR	
	5 m	R88A-CAKA005SR	Note: There are separate connectors for
	10 m	R88A-CAKA010SR	power and brakes for 3,000-r/min
[100 V/200 V]	15 m	R88A-CAKA015SR	Servomotors of 50 to 750W. When a Servomotor with a brake is used, it is
3,000-r/min Servomotors of 50 to 750 W	20 m	R88A-CAKA020SR	necessary to use both a PowerCable
	30 m	R88A-CAKA030SR	for Servomotors without brakes and
	40 m	R88A-CAKA040SR	Power cable.
	50 m	R88A-CAKA050SR	
	3 m	R88A-CAGB003SR	R88A-CAGB003BR
	5 m	R88A-CAGB005SR	R88A-CAGB005BR
1000 V/I	10 m	R88A-CAGB010SR	R88A-CAGB010BR
[200 V] 3,000-r/min Servomotors of 1 to 2 kW	15 m	R88A-CAGB015SR	R88A-CAGB015BR
2,000-r/min Servomotors of 1 to 2 kW 1,000-r/min Servomotors of 900 W	20 m	R88A-CAGB020SR	R88A-CAGB020BR
	30 m	R88A-CAGB030SR	R88A-CAGB030BR
	40 m	R88A-CAGB040SR	R88A-CAGB040BR
	50 m	R88A-CAGB050SR	R88A-CAGB050BR
	3 m	R88A-CAGB003SR	R88A-CAKF003BR
	5 m	R88A-CAGB005SR	R88A-CAKF005BR
(400 V/I	10 m	R88A-CAGB010SR	R88A-CAKF010BR
[400 V] 3,000-r/min Servomotors of 750 W to 2 kW	15 m	R88A-CAGB015SR	R88A-CAKF015BR
2,000-r/min Servomotors of 400 W to 2 kW	20 m	R88A-CAGB020SR	R88A-CAKF020BR
1,000-r/min Servomotors of 900 W	30 m	R88A-CAGB030SR	R88A-CAKF030BR
	40 m	R88A-CAGB040SR	R88A-CAKF040BR
	50 m	R88A-CAGB050SR	R88A-CAKF050BR
	3 m	R88A-CAGD003SR	R88A-CAGD003BR
[200 V] [400 V] 3,000-r/min Servomotors of 3 to 5 kW 2,000-r/min Servomotors of 3 to 5 kW	5 m	R88A-CAGD005SR	R88A-CAGD005BR
	10 m	R88A-CAGD010SR	R88A-CAGD010BR
	15 m	R88A-CAGD015SR	R88A-CAGD015BR
	20 m	R88A-CAGD020SR	R88A-CAGD020BR
1,000-r/min Servomotors of 4.5 kW	30 m	R88A-CAGD030SR	R88A-CAGD030BR
	40 m	R88A-CAGD040SR	R88A-CAGD040BR
	50 m	R88A-CAGD050SR	R88A-CAGD050BR

Note: 1. Different connectors are used for the motor power and the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to 750 W and Servomotors of 6 to 15 kW. When using a Servomotor with a brake, two cables are required: a Power Cable without Brake and a Brake Cable.
 Note: 2. For flexible power cables for Servomotors of 11 to 15 kW, refer to the G5 series USER'S MANUAL and make your own cable. For flexible power cables for Servomotors of 6 to 7.5 kW, refer to the G5 series USER'S MANUAL and make your own power cable.

#### **Brake Cable**

Specifications		Flexible Cables	
		Model	
	3 m	R88A-CAKA003BR	
	5 m	R88A-CAKA005BR	
[100 V] [200 V] 3,000-r/min Servomotors of 50 to 750 W	10 m	R88A-CAKA010BR	
	15 m	R88A-CAKA015BR	
	20 m	R88A-CAKA020BR	
	30 m	R88A-CAKA030BR	
	40 m	R88A-CAKA040BR	
	50 m	R88A-CAKA050BR	

Note: For flexible brake cables for Servomotors of 6 to 15 kW, refer to the G5 series USER'S MANUAL and make your own brake cable. Confirm the Manual No. that is listed in Related Manuals.

### **Encoder Cable**

Specifications		Flexible Cables	
		Model	
	3 m	R88A-CRKA003CR	
[100 V/200 V]	5 m	R88A-CRKA005CR	
3,000-r/min Servomotors of	10 m	R88A-CRKA010CR	
50 to 750 W	15 m	R88A-CRKA015CR	
(for both absolute	20 m	R88A-CRKA020CR	
encoders and incremental	30 m	R88A-CRKA030CR	
encoders)	40 m	R88A-CRKA040CR	
	50 m	R88A-CRKA050CR	
[100 V and 200 V] 3.000-r/min Servomotors	3 m	R88A-CRKC003NR	
	5 m	R88A-CRKC005NR	
of 1.0 kW or more 2,000-r/min Servomotors	10 m	R88A-CRKC010NR	
1,500-r/min Servomotors 1,000-r/min Servomotors	15 m	R88A-CRKC015NR	
[400 V]	20 m	R88A-CRKC020NR	
3,000-r/min Servomotors 2,000-r/min Servomotors	30 m	R88A-CRKC030NR	
1,500-r/min Servomotors 1,000-r/min Servomotors	40 m	R88A-CRKC040NR	
	50 m	R88A-CRKC050NR	

# Cable/Connector Absolute Encoder Battery Cable

Name	Length	model
Absolute Encoder Battery Cable (Battery not included)	0.3 m	R88A-CRGD0R3C
Absolute Encoder Battery Cable (One R88A-BAT01G Battery included)	0.3 m	R88A-CRGD0R3C-BS

# Absolute Encoder Backup Battery

Specifications	Model	
2,000 mA • h 3.6 V	R88A-BAT01G	

# **Analog Monitor Cable**

Name	Length	Model
Analog Monitor Cable	1 m	R88A-CMK001S

# Servo Drive Connectors (common)

Name	Connects to	Model
Encoder Connector	CN2	R88A-CNW01R
External Scale Connector	CN4	R88A-CNK41L
safety bypass connector	CN8	R88A-CNK81S

## Servo Drive Connectors

Name	Connects to	Drive type	Model
		General-purpose Input	R88A-CNU11C
Control I/O Connector	CN1	MECHATROLINK-II Communications EtherCAT Communications EtherCAT Communications Linear motor	R88A-CNW01C

## Servomotor Connector

Name		Model	
Name	Applicable Servomotor Capacity	woder	
	[100 V/200 V] 3,000 r/min (50 to 750 W)	R88A-CNK02R	
Servomotor Connector for Encoder Cable	[100 V/200 V] 3,000 r/min (1 to 5 kW) 2,000r/min,1,000r/min [400 V] 3,000 r/min, 2,000 r/min, 1,000 r/min	R88A-CNK04R	
Power Cable Connector	(750 W max.)	R88A-CNK11A	
Brake Cable Connector	(750 W max.)	R88A-CNK11B	

## External Encoder Cable

Name	Lengths	Model
Serial Communications Cable	10 m	R88A-CRKE010SR

# Control Cables Control Cables (for Connector Terminal Block/CN1)

Name	Model				
		Specifications			
	General-pur		Length 1.0 m	XW2Z-100J-B24	
Connector Terminal Block Cables	General-pui	pose input	Length 2.0 m	XW2Z-200J-B24	
Connector Terminal Block Cables	MECHATRO	DLINK-II Communications	Length 1.0 m	XW2Z-100J-B34	
	EtherCAT C	ommunications	Length 2.0 m	XW2Z-200J-B34	
	General-	Slotted screw (rise up) M3		XW2R-E50G-T	
	purpose	Phillips screw M3		XW2R-J50G-T	
	Input	Push-in spring		XW2R-P50G-T	
Connector Terminal Block Conversion Unit	MECHATR OLINK-II	Slotted screw (rise up) M3		XW2R-E20G-T	
	Communic ations EtherCAT	Phillips screw M3		XW2R-J20G-T	
	Communic ations	Push-in spring		XW2R-P20G-T	

## • General-purpose Inputs (Analog input/Pulse train input type) Connection Cables (for CN1)

Specifications		The number	Length	Model
Name	Unit	of axes	Lengui	woder
			1 m	XW2Z-100J-G9
		for 1 axis	5 m	XW2Z-500J-G9
Position Control Unit (High-speed type)	CJ1W-NC234/434		10 m	XW2Z-10MJ-G9
for Line-driver output	0110-100234/434		1 m	XW2Z-100J-G1
		for 2 axis	5 m	XW2Z-500J-G1
			10 m	XW2Z-10MJ-G1
		for 1 axis	1 m	XW2Z-100J-G13
Position Control Unit (High-speed type)	CJ1W-NC214/NC414	IOF I AXIS	3 m	XW2Z-300J-G13
for Open collector output		for 2 axis	1 m	XW2Z-100J-G5
			3 m	XW2Z-300J-G5
		for 1 axis	1 m	R88A-CPG001M1
			2 m	R88A-CPG002M1
			3 m	R88A-CPG003M1
Control Cables	CS1W-MC221 (-V1)		5 m	R88A-CPG005M1
for Motion Control Unit	CS1W-MC421 (-V1)		1 m	R88A-CPG001M2
		for 2 axis	2 m	R88A-CPG002M2
		IUI Z AXIS	3 m	R88A-CPG003M2
			5 m	R88A-CPG005M2
General-purpose Control Cables with	Cables for Constal numbers Controllers		1 m	R88A-CPG001S
Connector on One End	Cables for General-purpose Controllers	-	2 m	R88A-CPG002S

## Device for External Signal Connection / Connecting Cables (for CJ1W-NC□□4)

N	ame	Specification	IS	Model
Connection Cables Terminal Block	Normal wiring	Length 0.5 m	XW2Z-C50X	
		Length 1.0 m	XW2Z-100X	
		Length 2.0 m	XW2Z-200X	
		Length 3.0 m	XW2Z-300X	
			Length 5.0 m	XW2Z-500X
Cables			Length 10.0 m	XW2Z-010X
Connector		Slotted screw (rise up) M3		XW2R-E20G-T
Terminal Block	Phillips screw M3		XW2R-J20G-T	
Conversion Unit		Push-in spring		XW2R-P20G-T

### Servo Relay Units (for CN1)

Specifications	The number of axes	Model
Position Control Unit: For CJ1W-NC113/NC133 For CS1W-NC113/NC133 For C200HW-NC113	for 1 axis	XW2B-20J6-1B
Position Control Unit: For CJ1W-NC213/NC233/NC413/NC433 For CS1W-NC213/NC233/NC413/NC433 For C200HW-NC213/NC413	for 2 axis	XW2B-40J6-2B
For CJ2M-CPU31/CPU32/CPU33/CPU34/CPU35	for 1 axis	XW2B-20J6-8A
For CJ2M-CPU11/CPU12/CPU13/CPU14/CPU15	for 2 axis	XW2B-40J6-9A
For FQM1-MMA22 (Analog output) For FQM1-MMP22 (Pulse train output)	for 2 axis	XW2B-80J7-12A

## Servo Relay Unit cable (for Servo Drive/CN1)

Specifications	Length	Model
Position Control Unit: For CJ1W-NC 3	1 m	XW2Z-100J-B25
For CS1W/C200HW-NC	2 m	XW2Z-200J-B25
For CJ2M-CPU31/CPU32/CPU33/CPU34/CPU35	1 m	XW2Z-100J-B31
For CJ2M-CPU11/CPU12/CPU13/CPU14/CPU15 (XW2B-20J6-8A, XW2B-40J6-9A)	2 m	XW2Z-200J-B31
For FQM1-MMA22 (Analog output)	1 m	XW2Z-100J-B27
(XW2B-80J7-12A)	2 m	XW2Z-200J-B27
For FQM1-MMP22 (Pulse train output)	1 m	XW2Z-100J-B26
(XW2B-80J7-12A)	2 m	XW2Z-200J-B26

Note: You cannot use a Servo Relay Unit Cable for line-receiver inputs (+CWLD: CN1 pin 44, -CWLD: CN1 pin 45, +CCWLD: CN1 pin 46, -CCWLD: CN1 pin 47).

Use a General-purpose Control Cable and wire the connector to match the controller.

## Servo Relay Unit cable (Position Control Unit)

Specifications		The number of axes	Length	Model
CJ1W line-driver output type			0.5 m	XW2Z-050J-A18
For CJ1W-NC133 (XW2B-20J6-1B)		IUI I AXIS	1 m	XW2Z-100J-A18
CJ1W line-driver output type		for 2 axis	0.5 m	XW2Z-050J-A19
For CJ1W-NC233/NC433 (XW2B-40J6-	-2B)	101 2 4213	1 m	XW2Z-100J-A19
CS1W line-driver output type		for 1 axis	0.5 m	XW2Z-050J-A10
For CS1W-NC133 (XW2B-20J6-1B)		101 1 0213	1 m	XW2Z-100J-A10
CS1W line-driver output type		for 2 axis	0.5 m	XW2Z-050J-A11
or CS1W-NC233/NC433 (XW2B-40J6	-2B)		1 m	XW2Z-100J-A11
CJ1W open collector output type		for 1 axis	0.5 m	XW2Z-050J-A14
For CJ1W-NC113 (XW2B-20J6-1B)			1 m	XW2Z-100J-A14
CJ1W open collector output type		for 2 axis	0.5 m	XW2Z-050J-A15
or CJ1W-NC213/NC413 (XW2B-40J6-	-2B)		1 m	XW2Z-100J-A15
CS1W/C200HW open collector output t	уре	for 1 axis	0.5 m	XW2Z-050J-A6
For C200HW-NC113 (XW2B-20J6-1B)			1 m	XW2Z-100J-A6
CS1W/C200HW open collector output type For CS1W-NC213/NC413		for 2 axis	0.5 m	XW2Z-050J-A7
For C200HW-NC213/NC413 (XW2B-40	J6-2B)			XW2Z-100J-A7
CJ1M open collector output type			0.5 m	XW2Z-050J-A33
or CJ2M-CPU31/CPU32/CPU33/CPU or CJ2M-CPU11/CPU12/CPU13/CPU XW2B-20J6-8A, XW2B-40J6-9A)		for 1 axis	1 m	XW2Z-100J-A33
	General-		0.5 m	XW2Z-050J-A28
	purpose I/O	for 2 axis	1 m	XW2Z-100J-A28
or FQM1-MMA22 (Analog output)	(26 pin)		2 m	XW2Z-200J-A28
XW2B-80J7-12A)	0		0.5 m	XW2Z-050J-A31
	Special I/O (40 pin)	for 2 axis	1 m	XW2Z-100J-A31
	(40 pin)		2 m	XW2Z-200J-A31
	General-		0.5 m	XW2Z-050J-A28
	purpose I/O	for 2 axis	1 m	XW2Z-100J-A28
For FQM1-MMP22 (Pulse train output)	(26 pin)		2 m	XW2Z-200J-A28
XW2B-80J7-12A)	0		0.5 m	XW2Z-050J-A30
	Special I/O (40 pin)	for 2 axis	1 m	XW2Z-100J-A30
	(40 pin)		2 m	XW2Z-200J-A30

## ■ Communication Cables MECHATROLINK-II Communications MECHATROLINK-related Devices and Cables (Manufactured by Yaskawa Corporation)

Name			Model	Yaskawa model number
Name		Length	(OMRON model number)	raskawa model number
		0.5 m	FNY-W6002-A5	JEPMC-W6002-A5-E
MECHATROLINK-II Cables (without ring core and USB connector on bo	oth anda)	1.0 m	FNY-W6002-01	JEPMC-W6002-01-E
* Can be connected to R88D-GN and R88I		3.0 m	FNY-W6002-03	JEPMC-W6002-03-E
		5.0 m	FNY-W6002-05	JEPMC-W6002-05-E
		0.5 m	FNY-W6003-A5	JEPMC-W6003-A5
		1.0 m	FNY-W6003-01	JEPMC-W6003-01
		3.0 m	FNY-W6003-03	JEPMC-W6003-03
MECHATROLINK-II Cables (with ring core and USB connector on both	ends)	5.0 m	FNY-W6003-05	JEPMC-W6003-05
	0103)	10.0 m	FNY-W6003-10	JEPMC-W6003-10
		20.0 m	FNY-W6003-20	JEPMC-W6003-20
	30.0 m	FNY-W6003-30	JEPMC-W6003-30	
MECHATROLINK-II Terminating Resistor	Terminating re	esistance	FNY-W6022	JEPMC-W6022
MECHATROLINK-II Repeater	Communicatio	ons Repeater	FNY-REP2000	JEPMC-REP2000

 MECHATROLINK-related Devices and Cables are manufactured by Yaskawa Corporation, but they can be ordered directly from OMRON using the OMRON model numbers. (Yaskawa-brand products will be delivered even when they are ordered from OMRON.)

## Recommended EtherCAT Communications Cables

Use Straight STP (shielded twisted-pair) cable of category 5 or higher with double shielding (braiding and aluminum foil tape) for EtherCAT.

#### **Cabel with Connectors**

Item	Appearance	Recommended manufacturer	Cable length(m)	Model
			0.3	XS6W-6LSZH8SS30CM-Y
Standard type			0.5	XS6W-6LSZH8SS50CM-Y
Cable with Connectors on Both Ends (RJ45/RJ45) Wire Gauge and Number of Pairs: AWG27, 4-pair Cable Cable Sheath material: LSZH *2 Cable color: Yellow	$\cap$	OMBON	1	XS6W-6LSZH8SS100CM-Y
	1	OMINUN	2	XS6W-6LSZH8SS200CM-Y
	8		3	XS6W-6LSZH8SS300CM-Y
			5	XS6W-6LSZH8SS500CM-Y
			0.3	XS5W-T421-AMD-K
			0.5	XS5W-T421-BMD-K
Rugged type	15	OMRON	1	XS5W-T421-CMD-K
Cable with Connectors on Both Ends (RJ45/RJ45) Wire Gauge and Number of Pairs: AWG22, 2-pair Cable	-0		2	XS5W-T421-DMD-K
			5	XS5W-T421-GMD-K
			10	XS5W-T421-JMD-K
			0.3	XS5W-T421-AMC-K
	15		0.5	XS5W-T421-BMC-K
Rugged type		OMBON	1	XS5W-T421-CMC-K
Cable with Connectors on Both Ends (M12 Straight/RJ45) Wire Gauge and Number of Pairs: AWG22, 2-pair Cable	-0	OMRON	2	XS5W-T421-DMC-K
	-0		5	XS5W-T421-GMC-K
			10	XS5W-T421-JMC-K
			0.3	XS5W-T422-AMC-K
	1000		0.5	XS5W-T422-BMC-K
Rugged type	-	ONDON	1	XS5W-T422-CMC-K
Cable with Connectors on Both Ends (M12 Right-angle/RJ45) Wire Gauge and Number of Pairs: AWG22, 2-pair Cable	r)	OMRON	2	XS5W-T422-DMC-K
the dauge and transer of t and. AWOLL, 2 puil ouble	• 0		5	XS5W-T422-GMC-K
			10	XS5W-T422-JMC-K

\*1. Standard type cables length 0.2, 0.3, 0.5, 1, 1.5, 2, 3, 5, 7.5, 10, 15 and 20m are available. Rugged type cables length 0.3, 0.5, 1, 2, 3, 5, 10 and 15m are available.
\*2. The lineup features Low Smoke Zero Halogen cables for in-cabinet use and PUR cables for out-of-cabinet use.

**\*3.** Cables colors are available in blue, yellow, or Green.

Note: For details, refer to Cat.No.G019.

## Cables / Connectors Wire Gauge and Number of Pairs: AWG24, 4-pair Cable

Item	Appearance	Recommended manufacturer	Model
<u></u>	-	Hitachi Metals, Ltd.	NETSTAR-C5E SAB * 0.5 x 4P
Cables	-	Kuramo Electric Co.	KETH-SB *
	-	SWCC Showa Cable Systems Co.	FAE-5004 *
RJ45 Connectors	-	Panduit Corporation	MPS588 *

\*We recommend you to use above cable and connector together.

## Wire Gauge and Number of Pairs: AWG22, 2-pair Cable

Item	Appearance	Recommended manufacturer	Model
Cables		Kuramo Electric Co.	KETH-PSB-OMR *
Cables	-	Nihon Electric Wire&Cable Co.,Ltd.	KETH-PSB-OMR *
RJ45 Assembly Connector		OMRON	XS6G-T421-1 *

\*We recommend you to use above cable and connector together.

# ■ Peripheral Devices (External Regeneration Resistors, Reactors, Mounting Brackets) External Regeneration Resistors

Specifications	Model
80 W 50 Ω	R88A-RR08050S
80 W 100 Ω	R88A-RR080100S
220 W 47 Ω	R88A-RR22047S1
500 W 20 Ω	R88A-RR50020S

## Reactors

	Spe	ecifications		
General-purpose Inputs	MECHATROLINK-II Communications	EtherCAT Communications	Linear Motor with built-in EtherCAT communications	Model
R88D-KTA5L/-KT01H (For single-phase input)	R88D-KNA5L-ML2/-KN01H-ML2 (For single-phase input)	R88D-KNA5L-ECT/-KN01H-ECT (For single-phase input)	R88D-KN01H-ECT-L (For single-phase input)	3G3AX-DL2002
R88D-KT01L/-KT02H (For single-phase input)	R88D-KN01L-ML2/-KN02H-ML2 (For single-phase input)	R88D-KN01L-ECT/-KN02H-ECT (For single-phase input)	R88D-KN01L-ECT-L/-KN02H-ECT-L (For single-phase input)	3G3AX-DL2004
R88D-KT02L/-KT04H (For single-phase input)	R88D-KN02L-ML2/-KN04H-ML2 (For single-phase input)	R88D-KN02L-ECT/-KN04H-ECT (For single-phase input)	R88D-KN02L-ECT-L/-KN04H-ECT-L (For single-phase input)	3G3AX-DL2007
R88D-KT04L/-KT08H/ -KT10H (For single-phase input)	R88D-KN04L-ML2/-KN08H-ML2/ -KN10H-ML2 (For single-phase input)	R88D-KN04L-ECT/-KN08H-ECT/ -KN10H-ECT (For single-phase input)	R88D-KN04L-ECT-L/-KN08H-ECT-L/ -KN10H-ECT-L (For single-phase input)	3G3AX-DL2015
R88D-KT15H (For single-phase input)	R88D-KN15H-ML2 (For single-phase input)	R88D-KN15H-ECT (For single-phase input)	R88D-KN15H-ECT-L (For single-phase input)	3G3AX-DL2022
R88D-KT01H/-KT02H/ -KT04H/-KT08H/ -KT10H/-KT15H (For three-phase input)	R88D-KN01H-ML2/-KN02H-ML2/ -KN04H-ML2/-KN08H-ML2/ -KN10H-ML2/-KN15H-ML2 (For three-phase input)	R88D-KN01H-ECT/-KN02H-ECT/ -KN04H-ECT/KN08H-ECT/ -KN10H-ECT/-KN15H-ECT (For three-phase input)	R88D-KN01H-ECT-L/-KN02H-ECT-L/ -KN04H-ECT-L/-KN08H-ECT-L/ -KN10H-ECT-L/-KN15H-ECT-L (For three-phase input)	3G3AX-AL2025
R88D-KT20H/-KT30H	R88D-KN20H-ML2/-KN30H-ML2	R88D-KN20H-ECT/-KN30H-ECT	-	3G3AX-AL2055
R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT	-	3G3AX-AL2110
R88D-KT06F/-KT10F/-KT15F	R88D-KN06F-ML2/-KN10F-ML2/ -KN15F-ML2	R88D-KN06F-ECT/-KN10F-ECT/ -KN15F-ECT	R88D-KN06F-ECT-L/-KN10F-ECT-L/ -KN15F-ECT-L	3G3AX-AL4025
R88D-KT20F/-KT30F	R88D-KN20F-ML2/-KN30F-ML2	R88D-KN20F-ECT/-KN30F-ECT	R88D-KN20F-ECT-L/-KN30F-ECT-L	3G3AX-AL4055
R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT	-	3G3AX-AL4110
R88D-KT75H/-KT150F	_	R88D-KT75H-ECT/-KT150F-ECT	-	3G3AX-AL4220

# Mounting Brackets (L Brackets for Rack Mounting)

	Spe	cifications		
General-purpose Inputs	MECHATROLINK-II Communications	EtherCAT Communications	Linear Motor with built-in EtherCAT communications	Model
R88D-KTA5L/-KT01L/ -KT01H/-KT02H	R88D-KNA5L-ML2/-KN01L-ML2/ -KN01H-ML2/-KN02H-ML2	R88D-KNA5L-ECT/-KN01L-ECT/ -KN01H-ECT/-KN02H-ECT	R88D-KN01L-ECT-L/-KN01H-ECT-L/ -KN02H-ECT-L	R88A-TK01K
R88D-KT02L/-KT04H	R88D-KN02L-ML2/-KN04H-ML2	R88D-KN02L-ECT/-KN04H-ECT	R88D-KN02L-ECT-L/-KN04H-ECT-L	R88A-TK02K
R88D-KT04L/-KT08H	R88D-KN04L-ML2/-KN08H-ML2	R88D-KN04L-ECT/-KN08H-ECT	R88D-KN04L-ECT-L/-KN08H-ECT-L	R88A-TK03K
R88D-KT10H/KT15H/ -KT06F/-KT10F/-KT15F	R88D-KN10H-ML2/-KN15H-ML2/ -KN06F-ML2/-KN10F-ML2/ -KN15F-ML2	R88D-KN10H-ECT/-KN15H-ECT/ -KN06F-ECT/-KN10F-ECT/ -KN15F-ECT	R88D-KN10H-ECT-L/-KN15H-ECT-L/ -KN06F-ECT-L/-KN10F-ECT-L/ -KN15F-ECT-L	R88A-TK04K

Note: Mounting brackets are provided with Servo Drives of 2 to 15 kW.

# ■ Software

## How to Select Required Support Software for Your Controller

The required Support Software depends on the Controller to connect. Please check the following table when purchasing the Support Software.

Item	Omron PLC System	Omron Machine Automation Controller System
Controller	CS, CJ, CP, and other series	NJ-series
AC Servomotor/Drivers	<ul> <li>G5-series</li> <li>EtherCAT Communications</li> <li>EtherCAT Communications Linear Motor</li> <li>General-purpose input type(PulseTrain or Analog inputs)</li> <li>MECHATROLINK-II Communications</li> </ul>	<ul> <li>G5-series</li> <li>EtherCAT Communications (Unit version 2.1 or later recommended)</li> <li>EtherCAT Communications Linear Motor</li> </ul>
Software	FA Intergrated Tool Package CX-One	Automation Software Sysmac Studio

# ■ FA Integrated Tool Package CX-One

Product name	Specifications	Number of licenses	Media	Model	Standards
FA Integrated Tool Package CX-One Ver. 4.⊡	<ul> <li>The CX-One is a comprehensive software package that integrates Support Software for OMRON PLCs and components.</li> <li>CX-One runs on following OS.</li> <li>OS: Windows XP (Service Pack 3 or higher, 32-bit version) / Windows Vista (32-bit/64-bit version) / Windows 7 (32-bit/64-bit version) / Windows 8 (32-bit/64-bit version) / Windows 8.1 (32-bit/64-bit version)</li> <li>CX-One Version.4.□ includes CX-Drive Ver.2.□,</li> </ul>	1 license ⊁1	DVD *2	CXONE-AL01D-V4	_

**\*1.** Multi licenses are available for the CX-One (3, 10, 30, or 50 licenses). **\*2.** The CX-One is also available on CD (CXONE-AL\_C-V4).

## ■ Automation Software Sysmac Studio

Please purchase a DVD and required number of licenses the first time you purchase the Sysmac Studio. DVDs and licenses are available individually. Each model of licenses does not include any DVD.

Product name	Specifications	Number of licenses	Media	Model	Standards
	The Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance of machine automation controllers including the NJ Series, EtherCat Slave, and the HMI. Sysmac Studio runs on the following OS. Windows XP (Service Pack 3 or higher, 32-bit version)/	_ (Media only)	DVD	SYSMAC-SE200D	-
Sysmac Studio Standard Edition Ver.1.□□	Windows Vista (32-bit version) / Windows 7 (32-bit/64- bit version) / Windows 8 (32-bit/64-bit version) / Windows 8.1 (32-bit/64-bit version) The Sysmac Studio Standard Edition DVD includes Support Software to set up EtherNet/IP Units, DeviceNet slaves, Serial Communications Units, and Support Software for creating screens on HMIs (CX- Designer). For details, refer to the Sysmac Integrated Catalogue (P072).	1 license ≭	_	SYSMAC-SE201L	-

\*Multi licenses are available for the Sysmac Studio (3, 10, 30, or 50 licenses).

# **Combination table**

# AC Servo Drive and Servomotor Combinations (3,000 r/min, 2,000 r/min, 1,500r/min, 1,000 r/min)

# <Cylinder Type> • 3,000-r/min servomotors

Power Supply		Servo Drive Model Num	bers		Servomotor Model Numbers		
Voltage	General-purpose Inputs	MECHATROLINK-II	EtherCAT	Output	With incremental encoder	With absolute encoder	
	R88D-KTA5L	R88D-KNA5L-ML2	R88D-KNA5L-ECT	50 W	R88M-K05030H-	R88M-K05030T-	
Single-phase	R88D-KT01L	R88D-KN01L-ML2	R88D-KN01L-ECT	100 W	R88M-K10030L-	R88M-K10030S-	
100 to 120 VAC	R88D-KT02L	R88D-KN02L-ML2	R88D-KN02L-ECT	200 W	R88M-K20030L-	R88M-K20030S-	
	R88D-KT04L	R88D-KN04L-ML2	R88D-KN04L-ECT	400 W	R88M-K40030L-	R88M-K40030S-	
	R88D-KT01H *	R88D-KN01H-ML2 *	R88D-KN01H-ECT *	50 W	R88M-K05030H-🗆 🛠	R88M-K05030T-🗆 🛠	
	R88D-KT01H	R88D-KN01H-ML2	R88D-KN01H-ECT	100 W	R88M-K10030H-	R88M-K10030T-	
Single-phase/	R88D-KT02H	R88D-KN02H-ML2	R88D-KN02H-ECT	200 W	R88M-K20030H-	R88M-K20030T-	
three-phase	R88D-KT04H	R88D-KN04H-ML2	R88D-KN04H-ECT	400 W	R88M-K40030H-	R88M-K40030T-	
200 to 240 VAC	R88D-KT08H	R88D-KN08H-ML2	R88D-KN08H-ECT	750 W	R88M-K75030H-	R88M-K75030T-	
	R88D-KT15H *	R88D-KN15H-ML2 *	R88D-KN15H-ECT *	1 kW	R88M-K1K030H-🗆 🛠	R88M-K1K030T-🗆 *	
	R88D-KT15H	R88D-KN15H-ML2	R88D-KN15H-ECT	1.5 kW	R88M-K1K530H-	R88M-K1K530T-	
	R88D-KT20H	R88D-KN20H-ML2	R88D-KN20H-ECT	2 kW	R88M-K2K030H-	R88M-K2K030T-	
Three-phase	R88D-KT30H	R88D-KN30H-ML2	R88D-KN30H-ECT	3 kW	R88M-K3K030H-	R88M-K3K030T-	
200 to 240 VAC	R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT *	4 kW	R88M-K4K030H-	R88M-K4K030T-	
	R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT	5 kW	R88M-K5K030H-	R88M-K5K030T-	
	R88D-KT10F	R88D-KN10F-ML2	R88D-KN10F-ECT *	750 W	R88M-K75030F-	R88M-K75030C-	
	R88D-KT15F *	R88D-KN15F-ML2 *	R88D-KN15F-ECT *	1 kW	R88M-K1K030F-🗆 *	R88M-K1K030C-🗆 *	
	R88D-KT15F	R88D-KN15F-ML2	R88D-KN15F-ECT	1.5 kW	R88M-K1K530F-	R88M-K1K530C-	
Three-phase 400 to 480 VAC	R88D-KT20F	R88D-KN20F-ML2	R88D-KN20F-ECT	2 kW	R88M-K2K030F-	R88M-K2K030C-	
	R88D-KT30F	R88D-KN30F-ML2	R88D-KN30F-ECT	3 kW	R88M-K3K030F-	R88M-K3K030C-	
	R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT *	4 kW	R88M-K4K030F-	R88M-K4K030C-	
	R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT	5 kW	R88M-K5K030F-	R88M-K5K030C-	

# ● 1,500r/min, 2,000-r/min servomotors

Dower Cumplu		Servo Drive Model Numbers			Servomotor Model Numbers		
Power Supply Voltage	General-purpose Inputs	MECHATROLINK-II	EtherCAT	Output	With incremental encoder	With absolute encoder	
Single-phase/	R88D-KT10H	R88D-KN10H-ML2	R88D-KN10H-ECT	1 kW	R88M-K1K020H-	R88M-K1K020T-	
three-phase 200 to 240 VAC	R88D-KT15H	R88D-KN15H-ML2	R88D-KN15H-ECT	1.5 kW	R88M-K1K520H-	R88M-K1K520T-	
	R88D-KT20H	R88D-KN20H-ML2	R88D-KN20H-ECT	2 kW	R88M-K2K020H-	R88M-K2K020T-	
	R88D-KT30H	R88D-KN30H-ML2	R88D-KN30H-ECT	3 kW	R88M-K3K020H-	R88M-K3K020T-	
	R88D-KT50H *	R88D-KN50H-ML2 *	R88D-KN50H-ECT *	4 kW	R88M-K4K020H-🗆 🛠	R88M-K4K020T-🗆 *	
Three-phase 200 to 240 VAC	R88D-KT50H	R88D-KN50H-ML2	R88D-KN50H-ECT	5 kW	R88M-K5K020H-	R88M-K5K020T-	
200 10 240 740	R88D-KT75H	-	R88D-KN75H-ECT	7.5 kW	-	R88M-K7K515T-	
	R88D-KT150H *	-	R88D-KN150H-ECT *	11 kW	-	R88M-K11K015T-🗆 *	
	R88D-KT150H	-	R88D-KN150H-ECT	15 kW	-	R88M-K15K015T-	
	R88D-KT06F	R88D-KN06F-ML2	R88D-KN06F-ECT*	400 W	R88M-K40020F-	R88M-K40020C-	
	R88D-KT06F	R88D-KN06F-ML2	R88D-KN06F-ECT	600 W	R88M-K60020F-	R88M-K60020C-	
	R88D-KT10F	R88D-KN10F-ML2	R88D-KN10F-ECT	1 kW	R88M-K1K020F-	R88M-K1K020C-	
	R88D-KT15F	R88D-KN15F-ML2	R88D-KN15F-ECT	1.5 kW	R88M-K1K520F-	R88M-K1K520C-	
	R88D-KT20F	R88D-KN20F-ML2	R88D-KN20F-ECT	2 kW	R88M-K2K020F-	R88M-K2K020C-	
Three-phase 400 to 480 VAC	R88D-KT30F	R88D-KN30F-ML2	R88D-KN30F-ECT	3 kW	R88M-K3K020F-	R88M-K3K020C-	
100 10 100 1710	R88D-KT50F *	R88D-KN50F-ML2 *	R88D-KN50F-ECT *	4 kW	R88M-K4K020F-🗆 🛠	R88M-K4K020C-🗆 *	
-	R88D-KT50F	R88D-KN50F-ML2	R88D-KN50F-ECT	5 kW	R88M-K5K020F-	R88M-K5K020C-	
	R88D-KT75F	-	R88D-KN75F-ECT	7.5 kW	-	RR88M-K7K515C-	
	R88D-KT150F *	-	R88D-KN150F-ECT *	11 kW	-	R88M-K11K015C-🗆 *	
	R88D-KT150F	-	R88D-KN150F-ECT	15 kW	-	R88M-K15K015C-	

\* Please use the Servo Drive and Servomotor in this combination although their capacity is not same.

## ● 1,000-r/min servomotors

Power Supply Voltage		Servo Drive Model Numbers			Servomotor Model Numbers			
	General-purpose Inputs	MECHATROLINK-II	EtherCAT	Output	With incremental encoder	With absolute encoder		
Single-phase/ three-phase 200 to 240 VAC	R88D-KT15H *	R88D-KN15H-ML2 *	R88D-KN15H-ECT *	900 W	R88M-K90010H-🗆 *	R88M-K90010T-🗆 *		
	R88D-KT30H *	R88D-KN30H-ML2 *	R88D-KN30H-ECT *	2 kW	R88M-K2K010H-🗆 🛠	R88M-K2K010T-🗆 *		
Three-phase	R88D-KT50H *	R88D-KN50H-ML2 *	R88D-KN50H-ECT *	3 kW	R88M-K3K010H-🗆 🛠	R88M-K3K010T-🗆 *		
200 to 240 VAC	R88D-KT50H *	-	R88D-KN50H-ECT *	4.5 kW	-	R88M-K4K510T-🗆 *		
	R88D-KT75H *	-	R88D-KN75H-ECT *	6 kW	-	R88M-K6K010T-🗆 *		
	R88D-KT15F *	R88D-KN15F-ML2 *	R88D-KN15F-ECT *	900 W	R88M-K90010F-🗆 *	R88M-K90010C-🗆 *		
	R88D-KT30F *	R88D-KN30F-ML2 *	R88D-KN30F-ECT *	2 kW	R88M-K2K010F-🗆 *	R88M-K2K010C-🗆 *		
Three-phase 400 to 480 VAC	R88D-KT50F *	R88D-KN50F-ML2 *	R88D-KN50F-ECT *	3 kW	R88M-K3K010F-🗆 *	R88M-K3K010C-🗆 *		
	R88D-KT50F *	_	R88D-KN50F-ECT *	4.5 kW	_	R88M-K4K510C-🗆 *		
	R88D-KT75F *	_	R88D-KN75F-ECT *	6 kW	_	R88M-K6K010C-🗆 *		

\* Please use the Servo Drive and Servomotor in this combination although their capacity is not same.

# AC Servomotor and Decelerator Combinations (3,000 r/min, 2,000 r/min, 1,000 r/min)

# <Cylinder Type> • 3,000-r/min servomotors

Motor model	1/5	1/11 (1/9 for flange size No.11)	1/21	1/33	1/45
R88M-K05030	R88G-HPG11B05100B	R88G-HPG11B09050B (Gear ratio 1/9)	B□ B88G-HPG14A21100B□	R88G-HPG14A33050B	R88G-HPG14A45050B
R88M-K10030		R88G-HPG14A11100B		R88G-HPG20A33100B	R88G-HPG20A45100B
R88M-K20030	R88G-HPG14A05200B	R88G-HPG14A11200B	R88G-HPG20A21200B	R88G-HPG20A33200B	R88G-HPG20A45200B
R88M-K40030	R88G-HPG14A05400B	R88G-HPG20A11400B	R88G-HPG20A21400B	R88G-HPG32A33400B	R88G-HPG32A45400B
R88M-K75030H/T (200 V)	R88G-HPG20A05750B	R88G-HPG20A11750B	R88G-HPG32A21750B	R88G-HPG32A33750B	R88G-HPG32A45750B
R88M-K75030F/C (400 V)		B88G-HPG32A112K0B	R88G-HPG32A211K5B	R88G- HPG32A33600SB (Also used with R88M- K60020	R88G-HPG50A451K5B
R88M-K1K030	R88G-HPG32A052K0B				
R88M-K1K530				R88G-HPG50A332K0B	
R88M-K2K030			R88G-HPG50A212K0B		-
R88M-K3K030	R88G-HPG32A053K0B	R88G-HPG50A113K0B	R88G-HPG50A213K0B	-	-
R88M-K4K030	R88G-HPG32A054K0B	R88G-HPG50A115K0B	-	-	-
R88M-K5K030	R88G-HPG50A055K0B		-	-	-

## • 2,000-r/min servomotors

Motor model	1/5	1/11	1/21 (1/20 for flange size No.65)	1/33 (1/25 for flange size No.65)	1/45
R88M-K40020 (Only 400 V)	R88G-HPG32A052K0B (Also used with R88M-	R88G-HPG32A112K0B□ (Also used with R88M-	R88G-HPG32A211K5B (Also used with R88M-	R88G-	R88G- HPG32A45400SB
R88M-K60020 (Only 400 V)	K2K030	(Also used with Room- K2K030□)	(Also used with Room- K1K5030□)	HPG32A33600SB	R88G-HPG50A451K5B (R88M-K1K530)
R88M-K1K020	R88G-HPG32A053K0B	B88G-	R88G- HPG32A211K0SB□	R88G- HPG50A332K0SB□	R88G- HPG50A451K0SB□
R88M-K1K520	(Also used with R88M-	HPG32A112K0SB	R88G-HPG50A213K0B		-
R88M-K2K020	- K3K030⊡)		(Also used with R88M- K3K030⊟)		-
R88M-K3K020	R88G-HPG32A054K0B (Also used with R88M- K4K030	R88G-HPG50A115K0B (Also used with R88M- K5K030	R88G- HPG50A213K0SB□	R88G- HPG65A253K0SB□	_
R88M-K4K020	1K020 R88G- R88G-	R88G-	R88G-	-	
R88M-K5K020	HPG50A055K0SB	HPG50A115K0SB	HPG65A205K0SB	HPG65A255K0SB	-

# ● 1,000-r/min servomotors

Motor model	1/5	1/11	1/21 (1/20 for flange size No.65)	1/33 (1/25 for flange size No.65)
R88M-K90010	R88G-HPG32A05900TB	R88G-HPG32A11900TB	R88G-HPG50A21900TB	R88G-HPG50A33900TB
R88M-K2K010	R88G-HPG32A052K0TB	R88G-HPG50A112K0TB	R88G-HPG50A212K0TB	B88G-HPG65A255K0SB
R88M-K3K010	R88G-HPG50A055K0SB (Also used with R88M- K5K020	R88G-HPG50A115K0SB (Also used with R88M- K5K020 <sup>()</sup> )	R88G-HPG65A205K0SB (Also used with R88M- K5K020□)	(Also used with R88M- K5K020□)

# Linear Motor and AC Servo Drive Linear Motor Type Combinations

## Iron-core Linear Motor type

Linear Motor Model Numbers	Power Supply Voltage (V)	Servo Drive Model Numbers	Maximum speed (m/s)
	100	R88D-KN01L-ECT-L	2.5
R88L-EC-FW-0303-ANPC	200	R88D-KN02H-ECT-L	5
	400	R88D-KN06F-ECT-L	10
	100	R88D-KN02L-ECT-L	2.5
R88L-EC-FW-0306-ANPC	200	R88D-KN04H-ECT-L	5
	400	R88D-KN10F-ECT-L	10
	100	R88D-KN04L-ECT-L	2
R88L-EC-FW-0606-ANPC	200	R88D-KN08H-ECT-L	4
	400	R88D-KN15F-ECT-L	8
R88L-EC-FW-0609-ANPC	200	R88D-KN10H-ECT-L	4
NOOL-EC-FW-0009-ANFC	400	R88D-KN20F-ECT-L	8
R88L-EC-FW-0612-ANPC	200	R88D-KN15H-ECT-L	4
	400	R88D-KN30F-ECT-L	8
R88L-EC-FW-1112-ANPC	200	R88D-KN15H-ECT-L	2
ROOL-EC-FW-TITZ-ANPC	400	R88D-KN30F-ECT-L	4
R88L-EC-FW-1115-ANPC	200	R88D-KN15H-ECT-L	2
HOOL-LO-I W-THIS-ANFC	400	R88D-KN30F-ECT-L	4

## Ironless Linear Motor type

Linear Motor Model Numbers	Power Supply Voltage (V)	Servo Drive Model Numbers	Maximum speed (m/s)
R88L-EC-GW-0303-ANPS	100	R88D-KN01L-ECT-L	8
N00L-EC-GW-0303-ANF3	200	R88D-KN02H-ECT-L	16
R88L-EC-GW-0306-ANPS	100	R88D-KN04L-ECT-L	8
N00L-EC-GW-0300-ANF3	200	R88D-KN08H-ECT-L	16
R88L-EC-GW-0309-ANPS	200	R88D-KN10H-ECT-L	16
	100	R88D-KN01L-ECT-L	2.2
R88L-EC-GW-0503-ANPS	200	R88D-KN01H-ECT-L	4.4
R88L-EC-GW-0506-ANPS	100	R88D-KN02L-ECT-L	2.2
R88L-EC-GW-0506-ANPS	200	R88D-KN04H-ECT-L	4.4
R88L-EC-GW-0509-ANPS	100	R88D-KN04L-ECT-L	2.2
R88L-EC-GW-0509-ANPS	200	R88D-KN08H-ECT-L	4.4
R88L-EC-GW-0703-ANPS	100	R88D-KN02L-ECT-L	1.2
N00L-EC-GW-0703-ANF3	200	R88D-KN04H-ECT-L	2.4
	100	R88D-KN04L-ECT-L	1.2
R88L-EC-GW-0706-ANPS	200	R88D-KN08H-ECT-L	2.4
R88L-EC-GW-0709-ANPS	200	R88D-KN10H-ECT-L	2.4

Note: The maximum operation speed is limited by considering the guide mechanism, encoder, and other aspects. If it is 5 m/s or higher, please consult with your OMRON representative.

# **Controller Combinations**

# • Position Control unit ,Servo Relay Units and Cables

Select the Servo Relay Unit and Cable according to the model number of the Position Control Unit being used.

osition Control Unit	Positi	on Control Unit Cable	Se	rvo Relay Unit	Servo Drive Cable	
CS1W-NC113						
C200HW-NC113 XW2Z-□□J-A6			X	W2B-20J6-1B		
CS1W-NC213						
CS1W-NC413			×			
C200HW-NC213		XW2Z-🗆 J-A7	X	W2B-40J6-2B		
C200HW-NC413						
CS1W-NC133	2	(W2Z-□□□J-A10	Х	W2B-20J6-1B		
CS1W-NC233		(W2Z-□□□J-A11	v	W2B-40J6-2B	XW2Z-00J-B25	
CS1W-NC433		\\/2Z-LLLJ-ATT	^	W2D-40J0-2D		
CJ1W-NC113	2	(W2Z-□□□J-A14	Х	W2B-20J6-1B		
CJ1W-NC213		(W2Z-□□□J-A15	Z-□□J-A15 XW2B-40J6-2B			
CJ1W-NC413				W2D-40J0-2D	-	
CJ1W-NC133	2	XW2Z-□□□J-A18		W2B-20J6-1B		
CJ1W-NC233	XW2Z-□□□J-A19		v	W2B-40J6-2B		
CJ1W-NC433		\\\ZZ-LLLJ-A19	^	WZD-40J0-2D		
CJ2M-CPU31 CJ2M-CPU32 CJ2M-CPU33 CJ2M-CPU34 CJ2M-CPU35			For 1 axis	XW2B-20J6-8A		
CJ2M-CPU11 CJ2M-CPU12 CJ2M-CPU13 CJ2M-CPU14 CJ2M-CPU15		XW2Z-□□□J-A33		XW2B-40J6-9A	XW2Z-□□□J-B31	
FQM1-MMP22	General- purpose I/O	XW2Z-□□□J-A28			XW2Z-□□□J-B26	
	Special I/O	XW2Z-00J-A30	VI	W2B-80J7-12A		
FQM1-MMA22	General- purpose I/O	XW2Z-□□□J-A28		W2D-0UJ/-12A	XW2Z-□□□J-B27	
	Special I/O	XW2Z-DDJ-A31				

Note: 1. Insert the cable length into the boxes in the model number (
....). Position Control Unit cables come in two lengths: 0.5 m and 1 m (some are also available in lengths of 2 m). Servo Driver Cables also come in two lengths: 1 m and 2 m.

2. Two Servo Driver Cables are required if 2-axis control is performed using one Position Control Unit.

3. Direct cable is available for CJ1W-NC 4 Position Control Unit (High-Speed type).

Specifications	The number of axes	Model
For CJ1W-NC214/-NC414 (open collector output type)	1 axis	XW2Z-00J-G13
For CJ1W-NC214/-NC414 (open collector output type)	2 axis	XW2Z-🗆 J-G5
For CJ1W-NC234/-NC434 (line-driver output type)	1 axis	XW2Z-🗆 J-G9
For CJ1W-NC234/-NC434 (line-driver output type)	2 axis	XW2Z-DDJ-G1

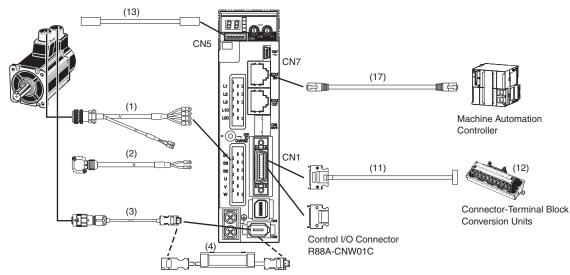
# Motion Control Unit Cables

There are special cables for 1-axis and 2-axis Motion Control Unit operation. Select the appropriate cable for the number of axes to be connected.

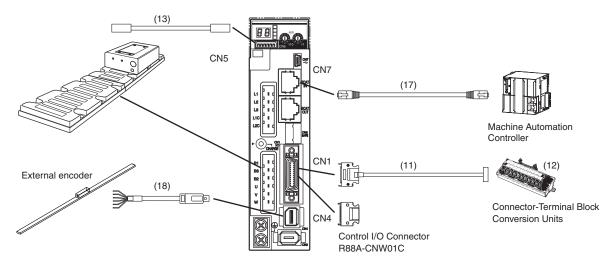
Motion Control Unit	Cable		Remarks	
CS1W-MC221-V1	For 1 axis	R88A-CPG	The $\Box\Box$ digits in the model number indicate the cable length. Motion Control Unit Cables come in four lengths: 1 m, 2 m, 3 m, and 5 m.	
CS1W-MC421-V1	For 2 axis	R88A-CPG	Example model number for 2-m 1-axis cable: R88A-CPG002M1	

# **Cable Combinations**

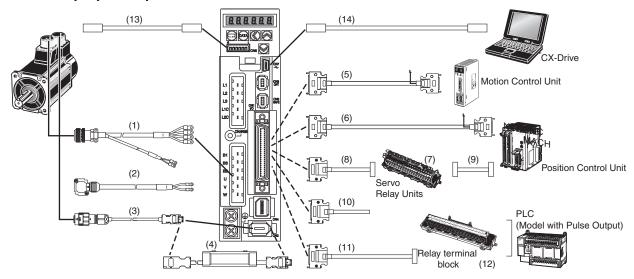
# • EtherCAT Communications

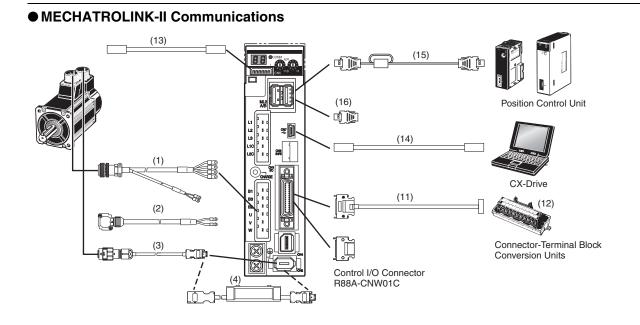


# • EtherCAT Communications Linear Motor Type



• General-purpose Input





# AC Servomotor/Drive G5-series

# Servomotor Power Cables (For CNB)

Symbol			Name	Connected to	Model	Description
				[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(50) L [Servomotor Connector] Angle plug: JN8FT04SJ1 (Japan Aviation Electronics Industry, Ltd.) Contact pins: ST-TMH-S-C1B-3500-A534G (Japan Aviation Electronics Industry, Ltd.)
		Brakes	Standard	[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W [400 V] Cylindrical Servomotors, 3,000 r/min, 750 W to 2 kW	R88A-CAGB S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) L [Servomotor Connector] Straight plug: N/MS3106B20-45 (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		Without Bra	Servomotor Power Cables for Servomotors without Brakes	Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W [200 V] [400 V]		
				Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	R88A-CAGD S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) 「Servomotor Connector] Straight plug: いがMS3106B22-228 (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
(1)	Non-flexible Cables			[200 V] [400 V] Cylindrical Servomotors, 1,500 r/min, 7.5 kW Cylindrical Servomotors, 1,000 r/min, 6 kW	R88A-CAGE S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	L [Servomotor Connector] Straight plug: NMNSJ06B32-175 (Japan Aviation Electronics Industry, Ltd. (Japan Aviation Electronics Industry, Ltd. Japan Aviation Electronics Industry, Ltd.
	Nor				ors of 6 to 15 kW. When using	nd the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to a Servomotor with a brake, two cables are required: a Power Cable
		With Brakes		[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) L [Servomotor Connector] Straight plug: NVMS3106B20-18S (Japan Aviation Electronics Industry, Ltd. Cable clamp: NVMS3057-12A (Japan Aviation Electronics Industry, Ltd.
			Standard Servomotor Power Cables for Servomotors with Brakes	[400 V] Cylindrical Servomotors, 3,000 r/min, 750W to 2 kW Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAKF B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) L [Servomotor Connector] Straight plug: NMS3106B24-11S (Japan Aviation Electronics Industry, Ltd. (Japan Aviation Electronics Industry, Ltd.
				[200 V] [400 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	70) L Straight plug: NMS3106B24-11S (Japan Aviation Electronics Industry, Ltd. Cable clamp: NMS3057-16A (Japan Aviation Electronics Industry, Ltd.

Note: Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

# AC Servomotor/Drive G5-series

Symbol			Name	Connected to	Model	Description
				[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA SR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(50) L [Servomotor Connector] Angle plug: JN8FT04SJ1 (Japan Aviation Electronics Industry, Ltd.) ST-TMH-S-C1B-3500-A534G (Japan Aviation Electronics Industry, Ltd.)
		Without Brakes	Robot Servomotor Power Cables for Servomotors without Brakes	[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W [400 V] Cylindrical Servomotors, 3,000 r/min, 750 W to 2 kW Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB SR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) L [Servomotor Connector] Straight plug: NMS3106B20-4S (Japan Aviation Electronics Industry, Ltd.)
(1)	Flexible Cables			[200 V] [400 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	R88A-CAGD SR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) L [Servomotor Connector] Straight plug: N/MS3106B22-22S (Japan Aviation Electronics Industry, Ltd.) ECable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
(1)	Flexible				rs of 6 to 15 kW. When using	d the brake on 100-V and 200-V, 3,000-r/min Servomotors of 50 to a Servomotor with a brake, two cables are required: a Power Cable
				[200 V] Cylindrical Servomotors, 3,000 r/min, 1 to 2 kW Cylindrical Servomotors, 2,000 r/min, 1 to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) E Straight plug: N/MS3106B20-18S (Japan Aviation Electronics Industry, Ltd.) N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		th Brake	Robot Servomotor Power Cables for Servomotors with Brakes	[400 V] Cylindrical Servomotors, 3,000 r/min, 750W to 2 kW Cylindrical Servomotors, 2,000 r/min, 400 W to 2 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAKF BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) Straight plug: NMS3106B24-11S (Japan Aviation Electronics Industry, Ltd. (Japan Aviation Electronics Industry, Ltd. (Japan Aviation Electronics Industry, Ltd.
				[200 V] [400 V] Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 3 kW	R88A-CAGD BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	(70) L [Servomotor Connector] Straight plug: N/MS3106B24-11S MAS3106B24-11S Cable clamp: Cable clamp: UMS3057-16A (Japan Aviation Electronics Industry, Ltd.)

Note: Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

## **Brake Cables**

Symbol		Name	Connected to	Model	Description
	ole Cables	Brake Cables (Non-flexible Cables)	[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 4.4 dia 30 to 50 m: 5.4 dia)	(50) L [Servomotor Connector] Angle plug: JN4FT02SJ1-R (Japan Aviation Electronics Industry, Ltd.) Connector pins: ST-TMH-S-C1B-3500-(A534G) (Japan Aviation Electronics Industry, Ltd.)
(2)	Non-flexible		[200 V] [400 V] Cylindrical Servomotors, 1,500 r/min, 7.5 to 15 kW 1,000 r/min, 6 kW	R88A-CAGE B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (5.4 dia)	(70) L [Servomotor Connector] Angle plug: NMS3106B14S-2S (Japan Aviation Electronics Industry, Ltd. Connector pins: NMS3057-6A (Japan Aviation Electronics Industry, Ltd.
	Flexible Cables	Brake Cables (Flexible Cables)	[100 V] [200 V] Cylindrical Servomotors, 3,000 r/min, 50 to 750 W	R88A-CAKA⊡⊡BR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 4.4 dia 30 to 50 m: 6.1 dia)	(70), L

Note: Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

# AC Servomotor/Drive G5-series

## Encoder Cables (for CN2)

Symbol		Name	Connected to	Model	Description
	Cables	Standard Encodor	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W (Absolute encoder/ Incremental encoder)	R88A-CRKA The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 5.2 dia 30 to 50 m: 6.8 dia)	[Servo Drive Connector] Connector: 55100-0670 (Molex Japan Co., Ltd.)
(3)	Non-flexible	Standard Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, For 1 kW (200 V) For 750 W (400 V) Cylindrical Servomotors, 2,000 r/min, Cylindrical Servomotors, 1,000 r/min, (Absolute encoder/ Incremental encoder)	R88A-CRKC N The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	[Servo Drive Connector] Connector: 55100-0670 (Molex Japan Co., Ltd.) (Molex Japan Co., Ltd.) (Molex Japan Co., Ltd.) (Japan Aviation Electronics Industry, Ltd.) (Japan Aviation Electronics Industry, Ltd.)
	Cables	Robot Encoder	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W (Absolute encoder/ Incremental encoder)	R88A-CRKA CR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 5.2 dia 30 to 50 m: 6.8 dia)	[Servo Drive Connector] L [Servomotor Connector] 55100-0670 (Molex Japan Co., Ltd.)
	Flexible	Robot Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, For 1 kW (200 V) For 750 W (400 V) Cylindrical Servomotors, 2,000 r/min, Cylindrical Servomotors, 1,000 r/min, (Absolute encoder/ Incremental encoder)	R88A-CRKC NR The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long. (3 to 20 m: 6.8 dia 30 to 50 m: 7.7 dia)	[Servo Drive Connector] Connector: (Molex Japan Co., Ltd.) (Molex Japan Co., Ltd.) (Molex Japan Co., Ltd.) (Japan Aviation Electronics Industry, Ltd.) (Japan Aviation Electronics Industry, Ltd.)

Note: Insert the cable length into the boxes in the model number of cables. (3 m: 003, 5 m: 005, 10 m: 010)

## Absolute Encoder Backup Battery and Absolute Encoder Battery Cable

Symbol	Name	Specifications		Model	Description
		Battery not included	0.3 m	R88A-CRGD0R3C	43.5 300 43.5 90±5 110
(4)	Absolute Encoder Battery Cable	der One R88A-BAT01G Battery included. 0.3 m		R88A-CRGD0R3C-BS	
	Absolute Encoder Backup Battery			R88A-BAT01G	Battery holder

### Control Cables (for CN1)

Symbol		Name	Connected to		Model
(5)		Control Cables for Motion Control Units	Motion Control Units (for all SYSMAC CS1/C200H)	For 1 axis/ For 2 axis	R88A-CPG ☐ ☐ M The empty boxes in the model number are for the cable length. The cable can be 1, 2, 3, or 5 m long. The empty diamond in the model numbe is for the number of axes. One axis: 1, Two axes: 2
	Cables		Line-driver output type (High-speed type) for CJ1W-NC234/434	For 1 axis	XW2Z-DDJ-G9 The empty boxes in the model number are for the cable length. The cable can be 1, 5, or 10 m long.
(0)	Control C	Direct connection cable for Position Control Unit (High-speed type)	Line-driver output type (High-speed type) for CJ1W-NC234/434	For 2 axis	XW2Z-DDJ-G1 The empty boxes in the model number are for the cable length. The cable can be 1, 5, or 10 m long.
(6)			Open collector output type (High-speed type) for CJ1W-NC214/NC414	For 1 axis	XW2Z-DDJ-G13 The empty boxes in the model number are for the cable length. The cable can be 1, or 3 m long.
			Open collector output type (High-speed type) for CJ1W-NC214/NC414	For 2 axis	XW2Z-□□J-G5 The empty boxes in the model number are for the cable length. The cable can be 1, or 3 m long.

Note: Use the following codes in a for the cable length: 0.5 m: 050, 1 m: 100, 2 m: 200, 3 m: 300, 5 m: 500, and 10 m:10M. However, for General-purpose Control Cables, use "001" for a 1-m cable.

# AC Servomotor/Drive G5-series

Symbol		Nar	ne	Connected to		Model
				Position Control Unit: For CJ1W-NC113/NC133 For CS1W-NC113/NC133 (For C200HW-NC113)	For 1 axis	XW2B-20J6-1B
(7)		Servo Relay Units		Position Control Unit: For CJ1W-NC213/NC233/NC413/NC433 For CS1W-NC213/NC233/NC413/NC433 (For C200HW-NC213/NC413)	For 2 axis	XW2B-40J6-2B
				For CJ1M-CPU21/CPU22/CPU23	For 1 axis	XW2B-20J6-8A
					For 2 axis	XW2B-40J6-9A
				For FQM1-MMA22 (Analog output) For FQM1-MMP22 (Pulse train output)	For 2 axis	XW2B-80J7-12A
				Position Control Unit: For CJ1W-NC 3, CS1W/C200HW-NC (XW2B-20J6-1B, XW2B-40J6-2B)		XW2Z- The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
(8)			Servo Relay Unit Cables for	For CJ1M-CPU21/CPU22/CPU23 (XW2B-20J6-8A, XW2B-40J6-9A)		XW2Z- J-B31 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
(8)	Relay Units/Connection Cables (8)		Servo Drives	For FQM1-MMA22 (Analog output) (XW2B-80J7-12A)		XW2Z- The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
				For FQM1-MMP22 (Pulse train output) (XW2B-80J7-12A)		XW2Z- The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
				CJ1W line-driver output type for CJ1W-NC133	For 1 axis	XW2Z-0-J-A18 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
	Relay Units			CJ1W line-driver output type for CJ1W-NC233/NC433	For 2 axis	XW2Z-DJ-A19 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
	Servo F	Connection Cables		CS1W line-driver output type for CS1W-NC133	For 1 axis	XW2Z-□□J-A10 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
				CS1W line-driver output type for CS1W-NC233/NC433	For 2 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
(9)			Servo Relay Unit Cables for Position Control Units	CJ1W open collector output type for CJ1W-NC113	For 1 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
				CJ1W open collector output type for CJ1W-NC213/NC413	For 2 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
				CS1W/C200HW open collector output type for CS1W-NC113 for C200HW-NC113	For 1 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
				CS1W/C200HW open collector output type for CS1W-NC213/NC413 for C200HW-NC213/NC413	For 2 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
				CSW/C200HW open collector output type for CJ1M-CPU21/CPU22/CPU23	For 1 axis	XW2Z- J-A33 The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.

Note: Use the following codes in  $\square$  for the cable length: 0.5 m: 050, 1 m: 100, 2 m: 200, 3 m: 300, 5 m: 500, and 10 m: 10M.

OMRON

# AC Servomotor/Drive G5-series

Symbol		Nai	ne		Connected to		Model
	on Cables		Servo Relay Unit Cables for Position Control Units	For FQM1-MMA22 (Analog output) For FQM1-MMP22 (Pulse train output)	General-purpose I/O (26 pin)	For 2 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
(9)	Units/Connection	Connection Cables		For FQM1-MMA22 (Analog output)	Special I/O (40 pin)	For 2 axis	XW2Z-DDJ-A31 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
	Servo Relay Uni			For FQM1-MMP22 (Pulse train output)	Special I/O (40 pin)	For 2 axis	XW2Z- The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
(10)	General-purpose Control Cables with Connector on One End			Cables for General-purpose Controllers			R88A-CPG The empty boxes in the model number are for the cable length. The cable can be 0.5, or 1 m long.
			Connector Terminal Block	Cable for General-purpose Controllers			XW2Z-DDJ-B24 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
(11)	For Connector Terminal		Terminal Block Cables	Cable for MECHATROLINK-II Communications			XW2Z-D-J-B34 The empty boxes in the model number are for the cable length. The cable can be 1, or 2 m long.
	Blo	ck		Slotted screw (rise up)	M3		XW2R-E50G-T
				Phillips screw M3			XW2R-J50G-T
(12)			Connector- Terminal Block	Push-in spring			XW2R-P50G-T
(12)			Conversion Units	Slotted screw (rise up)	M3		XW2R-E20G-T
				Phillips screw M3			XW2R-J20G-T
				Push-in spring			XW2R-P20G-T

Note: Use the following codes in a for the cable length: 0.5 m: 050, 1 m: 100, 2 m: 200, 3 m: 300, 5 m: 500, and 10 m:10M. However, for General-purpose Control Cables, use "001" for a 1-m cable.

## Monitor Connector (for CN5)

	, , , , , , , , , , , , , , , , , , ,								
Symbol	Name	Lengths	Model						
(13)	Analog Monitor Cable	1 m	R88A-CMK001S						

## **Communications Connector (for CN7)**

Symbol	Name	Description
(14)	USB communications cable	General purpose USB cable can be used

Note: Use a commercially available USB cable that is shield, equipped with a ferrite core for noise immunity, and Supporting for USB2.0. The Mini B type USB cable can be used.

## **MECHATROLINK-II Communication Cable**

Symbol	Name	Length (L)	Model (OMRON model number)	Yaskawa model number	Description
	MECHATROLINK-II	0.5m	FNY-W6002-A5	JEPMC-W6002-A5-E	(without ring core and USB connector on both ends)
	Communication Cable * Can be connected to R88D-GN and R88D-KN only.	1m	FNY-W6002-01	JEPMC-W6002-01-E	
		3m	FNY-W6002-03	JEPMC-W6002-03-E	
		5m	FNY-W6002-05	JEPMC-W6002-05-E	
		0.5m	FNY-W6003-A5	JEPMC-W6003-A5	
(15)	MECHATROLINK-II Communication	1m	FNY-W6003-01	JEPMC-W6003-01	
		3m	FNY-W6003-03	JEPMC-W6003-03	(with ring core and USB connector on both ends)
		5m	FNY-W6003-05	JEPMC-W6003-05	<u>⊢</u>
		10m	FNY-W6003-10	JEPMC-W6003-10	
		20m	FNY-W6003-20	JEPMC-W6003-20	Core
		30m	FNY-W6003-30	JEPMC-W6003-30	
(16)	MECHATROLINK-II Terminating resistance	_	FNY-W6022	JEPMC-W6022	

### **EtherCAT Communication Cable**

Symbol	Name	Description
(17)	Ethernet Cable	<ul> <li>EtherCAT Communication Cables</li> <li>Use a category 5 or higher cable with double, aluminum tape and braided shielding.</li> <li>Connector (Modular Plug) Specifications</li> <li>Use a category 5 or higher, shielded connector.</li> </ul>

## External encoder Cables

Symbol	Name	Length (L)	Model	Description
(18)	Serial Communications Cable	10m	R88A-CRKE010SR	CN4 with Connectors
(18)	Senal Communications Cable	IOM	RODA-CRKEUTUSR	

## Connectors

Connectors	Name	Model
	Control I/O Connector (General-purpose Input)	R88A-CNU11C
CN1	Control I/O Connector (MECHATROLINK-II Communications) (EtherCAT Communications)	R88A-CNW01C
CN2	Encoder Connector	R88A-CNW01R
CN4	External scale connector	R88A-CNK41L
CN8	Safety connector	R88A-CNK81S

## Servomotor Connector

Connectors	Name	Connected to	Model
		3,000 r/min, 50 to 750 W	R88A-CNK02R
-		3,000 r/min, 1 to 5 kW (200 V)/750 W to 5 kW (400 V) 2,000 r/min, 1,000 r/min	R88A-CNK04R
-	Power cable connector	750 W max. (100 V/200 V)	R88A-CNK11A
-	Brake cable connector	750 W max. (100 V/200 V)	R88A-CNK11B

# **Related Manuals**

Please read the relevant manuals of G5-Series	
Thease read the relevant mandals of Go Cerres	

English Cat. No.	Japanese Cat. No.	Туре	Name
1571	SBCE-357	R88D-KT/R88M-K	G5-SERIES AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
1572	SBCE-358	R88D-KN□-ML2/R88M-K	G5-SERIES MECHATROLINK-II Communications AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
1573	SBCE-360	R88D-KN□-ECT-R/R88M-K	G5-SERIES EtherCAT Communications for Position Control AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
1576	SBCE-365	R88D-KN□-ECT/R88M-K	G5-SERIES EtherCAT Communications AC SERVOMOTOR AND SERVO DRIVE USER'S MANUAL
1577	SBCE-366	R88D-KN□-ECT-L/R88L-EC	G5-SERIES EtherCAT Communications Linear Motor Type LINEARMOTOR AND DRIVE USER'S MANUAL
W487	SBCE-359	CJ1W-NC 81/CJ1W-NC 82	CJ-series Position Control Unit Operation Manual
W446	SBCA-337	CXONE-AL C-V -AL D-V	CX-Programmer Operation Manual
W453	SBCE-375	CXONE-DDDC-VD/DDD-VD	CX-Drive OPERATION MANUAL
W504	SBCA-362	SYSMAC-SE2	Sysmac Studio Version 1 Operation Manual

## **Read and Understand this Catalog**

Please read and understand this catalog before purchasing the product. Please consult your OMRON representative if you have any questions or comments.

## Warranty and Limitations of Liability

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OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

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# **Application Considerations**

## SUITABILITY FOR USE

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the products.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this catalog.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

## PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

# Disclaimers

## **CHANGE IN SPECIFICATIONS**

Product specifications and accessories may be changed at any time based on improvements and other reasons. Consult with your OMRON representative at any time to confirm actual specifications of purchased product.

## DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

### PERFORMANCE DATA

Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

# Related product catalog



Programmable Controller SYSMAC CJ Series Position Control Units (High-Speed type)

> CJ1W-NC214/414 CJ1W-NC234/434

> > Cat. No. R156



AC Servomotors / Servo Drives



Cat. No. 1814



AC Servomotors/ Servo Drives

## **SMARTSTEP 2**

Cat. No. 1813

Warranty and Limitations of Liability	LIMITATIONS OF LIABILITY
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