AC Servo System 1S Series

OMRON

Optimized installation and setup Increased machine productivity







State of the art technology applied to general purpose servo

Improved machine design. Increased machine productivity

Designed to meet the machine requirements, the 1S servo technology optimizes the full cycle, through the machine design, installation and commissioning tasks and finally to the maintenance once in production. In addition to the traditional motion solution, the 1S servo offers high resolution multi-turn encoder without battery backup, safety network built-in and improved loop control allowing accurate and higher machine productivity.

Capacity range is expanded, but 1S concept can be maintained

Optimized installation and commissioning tasks

Cabinet size reduction:

 Compact servo drive with same height throughout the power range from 0.1 to 7.5 kW





Pre-assembled motor cables

Embedded relay for direct motor brake control

 Fast and secure screw-less push-in in all connectors

 Pluggable connectors for easy pre-wiring and system maintenance *

Direct wiring of I/O signals. No need for

NO

Servo features

- Power range from 50 W to 15 kW
- 23 bit high resolution encoder
- Battery-free absolute multi-turn encoder
- Improved loop control for low overshoot and quick settling time Safety function built-in:
- Hardwired Safe Torque Off :
 - EN ISO 13849-1(Cat.3 PLe), EN61508(SIL3), EN62061(SIL3), EN61800-5-2(STO) Safety over EtherCAT(FSoE):
 - EN ISO 13849-1(Cat.3 PLd), EN61508(SIL2), EN62061(SIL2), EN61800-5-2(STO)



50% setup time reduction*

2

Servo sizing

- Servo sizing tool for the entire machine
- Graphical environment of the kinematic chain
- Electronic CAM import from Sysmac Studio

System configuration

Save 60% *

1

- NJ project auto-builder from servo sizing file
- Quick setup wizard for key parameters
- Parameters transfer in less than 400 ms

Simplified machine design and maintenance

- No battery, no maintenance
- No need for homing sequence improving machine uptime
- 23 bit high resolution encoder as standard
- Absolute multi-turn encoder design without mechanics: 16 bits, 65536 turns
- \cdot Compact and smaller motor size



Save 50% *

 Advanced tuning simulation to reduce testing effort and prevent machine damage

Save 40% *

* Performance comparison with previous Omron products based on Omron investigation in July 2019.

Totally integrated, totally in control



HIGHER PRODUCTIVITY

125 µs system cycle

- Faster machine speed keeping same accuracy
- Accurate profile generation in the controller
- The 23 bit high resolution encoder in combination with the improved loop control provide an accurate following profile



NJ/NX series Machine Controller

Ether**CAT**

NX Safety

INTEGRATED SAFETY

Safety control via EtherCAT

- Simplified safety installation
- Reduction of safety devices
- Safety function built-in: Fail Safe over EtherCAT (FSoE) Safe Torque Off
- Safety approval: EN ISO 13849-1(Cat.3 PLd), EN61508(SIL2), EN62061(SIL2), EN61800-5-2(STO)
- Troubleshooter integrated with Sysmac Studio

Sysmac Library



TOTALLY IN CONTROL



Sysmac Studio

- Simplified servo setup: Direct use of servo sizing calculation
- Open standard IEC 61131-3 programming
- Standard PLCopen Function Blocks for Motion and Safety
- Sysmac Library for fast engineering and optimized machine availability
 - Application libraries
 - Optimized productivity
 - Predictive maintenance
 - Reduced downtime



Sysmac Automation Platform



Software



Sysmac Studio, the integrated software

- One single tool for logic sequence, motion, safety, robotics, vision and HMI
- Fully compliant with open standard IEC 61131-3
- PLCopen Function Blocks for Motion and Safety
- Supports Ladder, Structured Text and In-Line ST programming with a rich instruction set
- CAM editor for easy programming of complex motion profiles
- Database Connectivity Function Block library

Sysmac Library

• The Sysmac Library is a collection of software functional components that can be used in programs for the NJ/NX Machine Automation Controllers. Sample programs and HMI screen samples are also available.

Please download it from following URL and install to Sysmac Studio. http://www.ia.omron.com/sysmac_library/

Sysmac servo family

Machine Controller



The NX-series Safety Network Controller connected with the NX1 Machine Controller enables the use of both EtherNet/IP + CIP Safety and EtherCAT + FSoE at the same time.

NJ/NX series

- Logic sequence, Motion, Safety, Robotics and Database connection functionality
- Scalable motion control: CPUs from 2 up to 256
 axes
- IEC 61131-3 controller
- PLCopen Function Blocks for Motion Control and Safety
- Advanced motion with Robotics functionality
- Built-in EtherCAT and EtherNet/IP ports

Motion



1S Motion Safety servo

- Servo drive for rotary motors
- Up to 3kW
- Battery-free absolute multi-turn encoder
- Advanced safety functions: STO/SS1/SS2/SOS/SLS/ SLP/SDI/SBC
- Servo drive for rotary motors with one cable connection

1S Servo System - General purpose servo

- · Servo drive for rotary motors
- Up to 15kW
- Battery-free absolute multi-turn encoder
- Safety function: STO



G5 Servo System

- Servo drive for rotary or linear motors
- Rotary motor: Up to 15 kW
- Iron- core and Ironless linear motor models: Up to 2100 N peak force
- · Safety function: STO (Hardwired Safe Torque Off only)
- Full closed loop control

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AC Servo System 1S-series R88M-1 /R88D-1SN -ECT

Best Machine Architecture

- Simple installation and wiring contributes to board design efficiency
- \bullet EtherCAT Communications Cycle of 125 μs
- Achievement of Safety on EtherCAT Network
- Supports two-degree-of-freedom control
- Battery-free system reduces maintenance and space
- Comes equipped with a 23-bit ABS encoder
- 350% momentary maximum torque (200 V, 750 W max.)

System Configuration



* You cannot use the CX-One to make the settings of 1S-series Servo Drives. Obtain the Sysmac Studio. **Note:** PMAC is an abbreviation for Programmable Multi Axis Controller.



AC Servo Drives with Built-in EtherCAT Communications [1S-series]

Contents

- Ordering Information
- Specifications
- EtherCAT Communication Specifications
- Version Information
- Names and Functions
- Dimensions



Ordering Information

Refer to the Ordering Information.

Specifications

General Specifications

	Item		Specifications	
Operating aml	bient temperature and	humidity	0 to 55°C, 90% max. (with no condensation)	
Storage ambie	ent temperature and hu	umidity	-20 to 65°C, 90% max. (with no condensation)	
Operating and	storage atmosphere		No corrosive gases	
Operating altit	tude		1,000 m max.	
Vibration resistance			10 to 60 Hz and at an acceleration of 5.88 m/s ² or less (Not to be run continuously at the resonance frequency)	
Insulation resi	istance		Between power supply terminals/power terminals and PE terminals: 0.5 $\mbox{M}\Omega$ min. (at 500 VDC)	
Dielectric stre	ngth		Between power supply terminals/power terminals and PE terminals: 1,500 VAC for 1 min (at 50/60 Hz)	
Protective structure IP20 (Built into IP54 panel)		IP20 (Built into IP54 panel)		
	EMC Directive		EN 61800-3 second environment, C3 category (EN61326-3-1 *1; Functional Safety)	
	EU Directives	Low Voltage Directive	EN 61800-5-1	
		Machinery Directive	EN ISO 13849-1 (Cat.3), EN 61508, EN 62061, EN 61800-5-2	
	UL standards		UL 61800-5-1	
International	CSA standards		CSA C22.2 No. 274	
standard	Korean Radio Regula	tions (KC)	Compliant	
	Australian EMC Labelling Requirements (RCM)		Compliant	
	EAC requirements		Compliant	
	SEMI standards		Can conform to the standard for momentary power interruptions (for no-load operation).	
	Ship standards (NK/L	.R)	Not compliant	

* The following product models are applicable to EN61000-6-7.

Applicable models: R88D-1SN55□-ECT, R88D-1SN75□-ECT, R88D-1SN150□-ECT

Note: The above items reflect individual evaluation testing. The results may differ under compound conditions.

The detail of Machinery Directive is as follows:

The STO function via safety input signals: EN ISO 13849-1 (Cat3 PLe), EN 61508 (SIL3), EN 62061 (SIL3), EN 61800-5-2 (STO)

The STO function via EtherCAT communications: EN ISO 13849-1 (Cat.3 PLd), EN 61508 (SIL2), EN 62061 (SIL2), EN 61800-5-2 (STO)

Precautions for Correct Use

Disconnect all connections to the Servo Drive before attempting a megger test (insulation resistance measurement) on a Servo Drive. Not doing so may result in the Servo Drive failure.

Do not perform a dielectric strength test on the Servo Drive. Internal elements may be damaged.

Characteristics

100-VAC Input Models

	Servo Drive model (R88	D-)	1SN01L-ECT	1SN02L-ECT	1SN04L-ECT		
	Item		100 W	200 W	400 W		
	Main circuit	Power supply voltage	Single-phase 100 to 120 VAC (85 to 132 V) *1 Rise time 500 ms max. *2				
		Frequency	Į	50/60 Hz (47.5 to 63 Hz) * 1			
Input Control circuit	Control circuit	Power supply voltage	24 VDC (21.6 to 26.4 V)				
		Current consumption *3	600 mA				
	Rated input current [A (rms)]	Single-phase	2.9	4.9	8.4		
(Main circuit power supply voltage: 120 VAC)	3-phase						
Output	Rated current [A (rms)]		1.5	2.5	4.8		
Output	Maximum current [A (rms)]		umption *3 2.9 4.9 8.4 e-phase 2.9 4.9 8.4 ase 1.5 2.5 4.8 4.7 8.4 14.7 a circuit *4 14.8 23.4 33.1 11 13.2 trol circuit 110 200 400	14.7			
		Main circuit *4	14.8	23.4	33.1		
neat vait		Control circuit	11	11	13.2		
Applicab	le Servomotor rated output [W]		100	200	400		
3,000-r/m	nin Servomotor (R88M-)	Batteryless 23-bit ABS	1M05030S 1M10030S 1M20030S 1M40030S		1M40030S		
Hold time power su	e at momentary power interrup upply voltage: 100 VAC)	tion (Main circuit	10 ms (Load condition: rated output) *5		ut) *5		
SCCR [A	(rms)]			5000			
Weight [kg]		1.2	1.5	1.9		

*1. The values outside parentheses indicate the rated value, and the values inside parentheses indicate the range of acceptable variation.
 *2. If the power supply is turned ON slowly, a Regeneration Circuit Error Detected during Power ON (Error No. 14.02) may occur. Check that the

power supply has a capacity sufficiently greater than the total capacity of the Servo Drive and the peripheral devices.

*3. Select a DC power supply in consideration of the current values that are specified in the current consumption. The rated current value that is printed on the product nameplate is a condition to apply the 1S-series product for the UL/Low Voltage Directive. Therefore, you do not need to consider it when you select a DC power supply for each model.

*4. This is the maximum heating value in applicable Servomotors.

Refer to the table on the page 14 for the Heating Values of Applicable Servomotors.

*5. This hold time at momentary power interruption is that of the main circuit. In order to maintain power supply to the control circuit at momentary power interruption, use a DC power supply, which meets the following conditions, for the control power supply: Reinforced insulation or double insulation, and the output hold time of 10 ms or more.

200-VAC Input Models

	Servo Drive model (R8	8D-)	1SN01H-ECT	1SN02H-ECT	1SN04H-ECT	1SN08H-ECT			
	Item		100 W	200 W	400 W	750 W			
	Main circuit	Power supply voltage	Single-ph	Single-phase and 3-phase 200 to 240 VAC (170 to 252 V) * 1 Rise time 500 ms max. * 2					
		Frequency	50/60 Hz (47.5 to 63 Hz) *1						
Input		Power supply voltage		24 VDC (21.	6 to 26.4 V)				
		Current consumption *3		600	mA				
	Rated current [A (rms)]	Single-phase	1.8	2.7	4.6	7.3			
	(Main circuit power supply voltage: 240 VAC)	3-phase	1.0	1.5	2.7	4.0			
Output	Rated current [A (rms)]		0.8	1.5	2.5	4.6			
Output	Maximum current [A (rms)]		3.1	5.6	9.1	16.9			
Main circuit *4		15.7/15.3 * 5	15.2/14.6 *5	22.4/22.4 *5	40/39.7 * 5				
Tieat valu	e [w]	Control circuit	11 11 11 13		13.2				
Applicabl	e Servomotor rated output	[W]	100	200	400	750			
3,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS	1M05030T 1M10030T	1M20030T	1M40030T	1M75030T			
2,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS							
1,000-r/min Servomotor (R88M-) Batteryless 23-bit ABS									
Hold time (Main circ	e at momentary power interr cuit power supply voltage: 2	ruption 200 VAC)	10 ms (Load condition: rated output) *6						
SCCR [A	(rms)]			50	00				
Weight [k	[g]		1.2	1.2	1.5	2.0			

	Servo Drive model (R8	8D-)	1SN10H-ECT	1SN15H-ECT	1SN20H-ECT	1SN30H-ECT		
	Item		1 kW	1.5 kW	2 kW	3 kW		
	Main circuit	Power supply voltage	3-phase 200 to 240 VAC (170 to 252 V) *1	Single-phase and 3-phase 200 to 240 3-phase 200 to 240 VAC (170 VAC (170 to 252 V) *1 *1		VAC (170 to 252 V) 1		
			Rise time 500 ms max. *2					
		Frequency	50/60 Hz (47.5 to 63 Hz) * 1					
Input	Control circuit	Power supply voltage		24 VDC (21.	.6 to 26.4 V)			
	Control circuit	Current consumption *3	600 mA		900 mA			
	Rated current [A (rms)]	Single-phase		15.7				
	(Main circuit power supply voltage: 240 VAC)	3-phase	5.8	9.0	13.0	15.9		
Output	Rated current [A (rms)]		7.7	9.7	16.2	22.3		
Output	Maximum current [A (rms)	0]	16.9	28.4	41.0 54.7			
Heat valu	۹ (W)	Main circuit *4	46.5	85.5/85.5 *5 128.9 167.5		167.5		
neat valu		Control circuit	13.2	20.4	20.4 20.4			
Applicabl	e Servomotor rated output	[W]	1,000	1,500	2,000	3,000		
3,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS	1L1K030T	1L1K530T	1L2K030T	1L3K030T		
2,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS	1M1K020T	1M1K520T	1M2K020T	1M3K020T		
1,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS	1M90010T	1M90010T 1M2K010T 1M3K0		1M3K010T		
Hold time (Main circ	e at momentary power interr cuit power supply voltage: 2	ruption 200 VAC)	10 ms (Load condition: rated output) *6			· · · · · · · · · · · · · · · · · · ·		
SCCR [A	(rms)]			50	00			
Weight [k	[g]		2.0	3.4	3.4	3.4		

	Servo Drive model (B8	8D-)	1SN55H-ECT 1SN75H-ECT 1SN150H-ECT		1SN150H-ECT			
		00-)	E E LW		15 kW			
	Main aircuit	Power supply	3-phase 200 to 240 VAC (170 to 252 V) *1					
	Main circuit	Frequency	50/60 Hz (47.5 to 63 Hz) *1					
Input		Power supply voltage	24 VDC (21.6 to 26.4 V)					
F S	Control circuit	Current consumption *3	900	mA	1,200 mA			
	Rated current [A (rms)] (Main circuit power supply voltage: 240 VAC)	3-phase	27.0 38.0		77.0			
Output	Rated current [A (rms)]		28.6	42.0	70.0			
Output	Maximum current [A (rms)]	84.8	113	169.7			
Main circuit *4		290	360	610				
neat vait		Control circuit	19	0.9	29.7			
Applicab	le Servomotor rated output	[W]	5,500	7,500	15,000			
3,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS	1L4K030T 1L4K730T					
2,000-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS						
1,500-r/m	in Servomotor (R88M-)	Batteryless 23-bit ABS	1M4K015T 1M5K015T	1M7K515T	1M11K015T 1M15K015T			
1,000-r/min Servomotor (R88M-) Batteryless								
Hold time (Main cire	e at momentary power inter cuit power supply voltage:	ruption 200 VAC)	10 ms	(Load condition: rated output	t) *6			
SCCR [A	(rms)]			5000				
Weight [(a)		9.4	9.4	21			

*1. The values outside parentheses indicate the rated value, and the values inside parentheses indicate the range of acceptable variation.

***2.** If the power supply is turned ON slowly, a Regeneration Circuit Error Detected during Power ON (Error No. 14.02) may occur. Check that the power supply has a capacity sufficiently greater than the total capacity of the Servo Drive and the peripheral devices.

***3.** Select a DC power supply in consideration of the current values that are specified in the current consumption.

The rated current value that is printed on the product nameplate is a condition to apply the 1S-series product for the UL/Low Voltage Directive. Therefore, you do not need to consider it when you select a DC power supply for each model.

*4. This is the maximum heating value in applicable Servomotors.

Refer to the table on the next page for the heating value of each applicable Servomotor.

*5. The first value is for single-phase input power and the second value is for 3-phase input power.

*6. This hold time at momentary power interruption is that of the main circuit. In order to maintain power supply to the control circuit at momentary power interruption, use a DC power supply, which meets the following conditions, for the control power supply: Painforced insulation or double insulation, and the output held time of 10 me or more.

Reinforced insulation or double insulation, and the output hold time of 10 ms or more.

400-VAC Input Models

Use a neutral grounded 400 VAC 3-phase power supply for the 400 VAC input models.

	Servo Drive mode	el (R88D-)	1SN06F-ECT 1SN10F-ECT 1SN15F-ECT 1SN20F		1SN20F-ECT			
	Item		600 W	1 kW	1.5 kW	2 kW		
	Main circuit	Power supply voltage	3-	3-phase 380 to 480 VAC (323 to 504 V) *1 Rise time 500 ms max. *2				
		Frequency	50/60 Hz (47.5 to 63 Hz) *1					
Input Control oi	Control circuit	Power supply voltage		24 VDC (21	.6 to 26.4 V)			
mput	Control circuit	Current consumption *3		900	mA			
	Rated current [A (rms)] (Main circuit power supply voltage: 480 VAC)	3-phase	2.4	3.1	4.3	6.5		
Output	Rated current [A (rms)]		1.8	4.1	4.7	7.8		
Output	Maximum current [A (rms)]	5.5	9.6	14.1	19.8		
Heatwa		Main circuit *4	20.2	52.1	77.5	106.8		
пеат va		Control circuit	20.4 20.4 20.4 20.4		20.4			
Applica	ble Servomotor rated outp	ut [W]	600	1,000	1,500	2,000		
3,000-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS		1L75030C 1L1K030C	1L1K530C	1L2K030C		
2,000-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS	1M40020C 1M60020C	1M1K020C	1M1K520C	1M2K020C		
1,000-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS	1M90010C 1M2		1M2K010C			
Hold tin (Main ci	ne at momentary power interior interio	erruption :: 400 VAC)	10 ms (Load condition: rated output) *5			5		
SCCR [A (rms)]			50	000			
Weight	[kg]		3.4	3.4	3.4	3.4		

	Servo Drive mode	el (R88D-)	1SN30F-ECT	1SN30F-ECT 1SN55F-ECT 1SN75F-ECT 1SN1		1SN150F-ECT	
	Item		3kW	5.5kW	7.5kW	15kW	
	Main circuit	Power supply voltage	3-phase 380 to 480 VAC (323 to 504 V) *1 Rise time 500 ms max. * 2				
		Frequency		50/60 Hz (47.	5 to 63 Hz) * 1		
Input	Control airquit	Power supply voltage		24 VDC (21	.6 to 26.4 V)		
	Control circuit	Current consumption *3		900 mA		1,200 mA	
	Rated current [A (rms)] (Main circuit power supply voltage: 480 VAC)	3-phase	8.4	16.0	23.0	40.0	
Output	Rated current [A (rms)]		11.3	14.5	22.6	33.9	
Output	Maximum current [A (rms)]	28.3	42.4	56.5	84.8	
Heat va		Main circuit *4	143.3 280.0 280.0 440		440.0		
Tieat va		Control circuit	20.4	19	9.9	29.7	
Applica	ble Servomotor rated outp	ut [W]	3,000	5,500	7,500	15,000	
3,000-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS	1L3K030C	1L4K030C 1L5K030C			
2,000-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS	1M3K020C				
1,500-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS		1M4K015C 1M5K515C	1M7K515C	1M11K015C 1M15K015C	
1,000-r/	min Servomotor (R88M-)	Batteryless 23-bit ABS	1M3K010C				
Hold tin (Main ci	ne at momentary power into rcuit power supply voltage	erruption e: 400 VAC)	10 ms (Load condition: rated output) *5				
SCCR [/	A (rms)]			50	00		
Weight	[kg]		3.4	9.4	9.4	21	

*1. The values outside parentheses indicate the rated value, and the values inside parentheses indicate the range of acceptable variation.
*2. If the power supply is turned ON slowly, a Regeneration Circuit Error Detected during Power ON (Error No. 14.02) may occur. Check that the

power supply has a capacity sufficiently greater than the total capacity of the Servo Drive and the peripheral devices.

*3. Select a DC power supply in consideration of the current values that are specified in the current consumption.

The rated current value that is printed on the product nameplate is a condition to apply the 1S-series product for the UL/Low Voltage Directive. Therefore, you do not need to consider it when you select a DC power supply for each model.

*4. This is the maximum heating value in applicable Servomotors.

Refer to the table below for the heating value of each applicable Servomotor.

*5. This hold time at momentary power interruption is that of the main circuit. In order to maintain power supply to the control circuit at momentary power interruption, use a DC power supply, which meets the following conditions, for the control power supply: Reinforced insulation or double insulation, and the output hold time of 10 ms or more.

Servo Drive model	Servomotor model	Main circuit heat value [W]
	R88M-1M05030S-	11.2
R88D-1SN01L-ECT	R88M-1M10030S-	14.8
	R88M-1M05030T-	13.2/13.2 *
R88D-1SN01H-ECT	R88M-1M10030T-	15.7/15.3 *
	R88M-1L1K030T-	46.5
R88D-1SN10H-ECT	R88M-1M1K020T-	37.7
	R88M-1M90010T-	42.9
	R88M-1L1K530T-	85.5/85.5 *
R88D-1SN15H-ECI	R88M-1M1K520T-	84/84 *
	R88M-1L2K030T-	128.9
R88D-1SN20H-ECT	R88M-1M2K020T-	91.3
	R88M-1M2K010T-	109.1
	R88M-1L3K030T-	167.5
R88D-1SN30H-ECT	R88M-1M3K020T-	125.5
	R88M-1M3K010T-	156.7
	R88M-1L4K030T-	250
R88D-1SN55H-ECT	R88M-1M4K015T-	270
	R88M-1L4K730T-	290
	R88M-1M5K015T-	290
R88D-1SN75H-ECT	R88M-1M7K515T-	360
	R88M-1M11K015T-	490
R88D-1SN150H-ECT	R88M-1M15K015T-	610
	R88M-1M40020C-	14.4
R88D-1SN06F-ECT	R88M-1M60020C-	20.2
	R88M-1L75030C-	51.1
	R88M-1L1K030C-	52.1
R88D-1SN10F-ECT	R88M-1M1K020C-	33.4
	R88M-1M90010C-	40.2
	R88M-1L1K530C-	77.5
R88D-1SN15F-ECT	R88M-1M1K520C-	47.9
	R88M-1L2K030C-	106.8
R88D-1SN20F-ECT	R88M-1M2K020C-	65.7
	R88M-1M2K010C-	79.6
	R88M-1L3K030C-	143.3
R88D-1SN30F-ECT	R88M-1M3K020C-	96.5
	R88M-1M3K010C-	115.5
	R88M-1L4K030C-	250
	R88M-1M4K015C-	280
H00D-1210221-EC1	R88M-1L5K030C-	250
	R88M-1M5K515C-	280
R88D-1SN75F-ECT	R88M-1M7K515C-	280
	R88M-1M11K015C-	390
1000-1311100F-ECT	R88M-1M15K015C-	440

* The first value is for single-phase input power and the second value is for 3-phase input power.

EtherCAT Communications Specifications

Item	Specifications
Communications standard	IEC 61158 Type 12, IEC 61800-7 CiA 402 Drive Profile
Physical layer	100BASE-TX (IEEE802.3)
Connectors	RJ45 × 2 (shielded) ECAT IN: EtherCAT input ECAT OUT: EtherCAT output
Communications media	Recommended media: Twisted-pair cable, which is doubly shielded by the aluminum tape and braid, with Ethernet Category 5 (100BASE-TX) or higher
Communications distance	Distance between nodes: 100 m max.
Process data	Fixed PDO mapping Variable PDO mapping
Mailbox (CoE)	Emergency messages, SDO requests, SDO responses, and SDO information
Synchronization mode and communications cycle	DC Mode (Synchronous with Sync0 Event) Communications cycle: 125 μs, 250 μs, 500 μs, 750 μs, 1 to 10 ms (in 0.25 ms increments) Free Run Mode
Indicators	ECAT-L/A IN (Link/Activity IN) × 1 ECAT-L/A OUT (Link/Activity OUT) × 1 ECAT-RUN × 1 ECAT-ERR × 1
CiA 402 Drive Profile	 Cyclic synchronous position mode Cyclic synchronous velocity mode Cyclic synchronous torque mode Profile position mode Profile velocity mode Homing mode Touch probe function Torque limit function

Version Information

1S-series	Corresponding version	
Model	Unit version	Sysmac Studio
	Version 1.0	Version 1.16 or higher
	Version 1.1	Version 1.18 or higher
R88D-1SN□-ECT	Version 1.2	Version 1.22 or higher
	Version 1.3 *1	Version 1.27 or higher
	Version 1.4 *1	Version 1.43 or higher

***1.** Sysmac Studio version 1.44 or higher enables you to use the cable redundancy function and configure a ring topology.

Functions That Were Added or Changed for Each Unit Version

Functions That Were Added or Changed

	Function	Addition/change	Unit version
EtherCAT Communications	Cable Redundancy Function	Addition	Ver.1.3
Adjustment Function	Multiple Drives Tuning Function	Addition	Ver.1.1
	Basic Functions - Control Method Selection (3000-03 hex)	Change	Ver.1.4
	Machine - Inertia Ratio (3001-01 hex)	Change	Ver.1.1
	Position Command - Following Error After Interpolation (3010-92 hex)	Addition	Ver.1.4
	Command Dividing Function - Interpolation Method Selection in csp (3041-10 hex)	Addition/changeUnit versionAdditionVer.1.3AdditionVer.1.1AdditionVer.1.1AdditionVer.1.4ChangeVer.1.4ChangeVer.1.4AdditionVer.1.4AdditionVer.1.4AdditionVer.1.4AdditionVer.1.4AdditionVer.1.4AdditionVer.1.4AdditionVer.1.4AdditionVer.1.1Wing Gain Selection (3120-10 hex)AdditionAdditionVer.1.1Wing Gain 2 (3120-11 hex)AdditionAdditionVer.1.1AdditionVer.1.1AdditionVer.1.1AdditionVer.1.1AdditionVer.1.4Add	Ver.1.2
	TDF Position Control - Command Following Gain Selection (3120-10 hex)		Ver.1.1
	TDF Position Control - Command Following Gain 2 (3120-11 hex)	Addition	Ver.1.1
	TDF Velocity Control - Command Following Gain Selection (3121-10 hex)	Addition	Ver.1.1
	TDF Velocity Control - Command Following Gain 2 (3121-11 hex)	Addition	Ver.1.1
	Runaway Detection (3B71 hex)	Addition	Ver.1.1
Object	Motor Advanced Setting (4412 hex)	Addition	Ver.1.4
	Function Output - Bit Mask (4602-01 hex)	Change	Ver.1.4
		Change	Ver.1.2
	Function Output - Physical Outputs (4602-F1 hex)	Change	Ver.1.4
	Brake Interlock Output - Threshold Speed at Servo OFF (4610-03 hex) *1	Change	Ver.1.4
	External Brake Interlock Output (4663 hex)	Addition	Ver.1.2
		Change	Ver.1.2
	Digital outputs - Physical Outputs (60FE - 01 nex)	Change	Ver.1.4
	Digital outputs - Bit mask (60FE-02 hex)	Addition Ver.1 Physical Outputs (60FE - 01 hex) Change Ver.1 Change Ver.1 Change Ver.1 Change Ver.1 Change Ver.1 Change Ver.1	
	Runaway Detection	Addition	Ver.1.1
	Synchronization Error	Change	Ver.1.1
		Addition	Ver.1.2
Error detection function	Regeneration Circuit Error Detected during Power ON	Delete	Ver.1.3
	Inrush Current Prevention Circuit Error	Addition	Ver.1.3
	Regeneration Circuit Error	Addition	Ver.1.3
		Addition	Ver.1.2
Applied Functions	Brake Interlock	Change	Ver.1.4

*1. With the unit version Ver.1.4 or later, the default setting is changed. Refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat.No.I586) for details.

Combinations of Unit Versions and Motor Power Cables

Motor power cables have two cable versions (version 1.0 and version 1.1) and are available in the following lengths: 3 m, 5 m, 10 m, 15 m, 20 m, 30 m, 40 m, and 50 m. Use a Servo Drive unit version 1.2 or earlier with 20 m or less of motor power cable.

Power Cables				Combination table			
	Power Cables			Unit version	1.2 or earlier	Unit version	1.3 or later
Power Cable	Coble length	Cable version		Cable version		Cable version	
model (R88A-)	Cable length	Ver.1.0	Ver.1.1	Ver.1.0	Ver.1.1	Ver.1.0	Ver.1.1
CA1A	3 m, 5 m, 10 m, 15 m, 20 m	Yes	Yes	Available	Available	Available	Available
CA1A B CA1A B CA1A BF	30 m, 40 m, 50 m		Yes		Unavailable		Available
CA1B	3 m, 5 m, 10 m, 15 m, 20 m	Yes	Yes	Available	Available	Available	Available
CA1B	30 m, 40 m, 50 m		Yes		Unavailable		Available
CA1COS CA1COSF	3 m, 5 m, 10 m, 15 m, 20 m	Yes	Yes	Available	Available	Available	Available
CA1C	30 m, 40 m, 50 m		Yes		Unavailable		Available
CA1D B CA1D BF	3 m, 5 m, 10 m, 15 m, 20 m	Yes		Available		Available	
	30 m, 40 m, 50 m	Yes		Unavailable		Available	
CA1E	3 m, 5 m, 10 m, 15 m, 20 m	Yes	Yes	Available	Available	Available	Available
CA1E	30 m, 40 m, 50 m		Yes		Unavailable		Available
CA1FOOS CA1FOOSF	3 m, 5 m, 10 m, 15 m, 20 m	Yes		Available		Available	
CA1F	30 m, 40 m, 50 m	Yes		Unavailable		Available	
CA1H0 SF CA1H0 BF	3 m, 5 m, 10 m, 15 m, 20 m	Yes		Available		Available	
CA1HE BF	10 m, 20 m	Yes		Unavailable *1		Available * 2	
CA1J0 SF CA1J0 BF	3 m, 5 m, 10 m, 15 m, 20 m	Yes		Available		Available	
CA1JE BF	10 m, 20 m	Yes		Unavailable *1		Available *2	
CA1K0_SF CA1K0_BF	3 m, 5 m, 10 m, 15 m, 20 m	Yes		Available		Available	
CA1KE_BF	10 m, 20 m	Yes		Unavailable *1		Available *2	

*1. The Servo Drive unit version 1.2 or earlier cannot be used with extension cables. *2. The total length of motor power cables for a Servo Drive must not exceed 50 m. See Combinations of Motor Power Cables and Extension Power Cables on page 120 for details.

Part Names

Servo Drive Part Names

R88D-1SN01L-ECT/-1SN02L-ECT/-1SN04L-ECT/-1SN01H-ECT/ -1SN02H-ECT/-1SN04H-ECT/-1SN08H-ECT/-1SN10H-ECT



R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN06F-ECT/ -1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT





R88D-1SN55H-ECT/-1SN75H-ECT/-1SN55F-ECT/-1SN75F-ECT







Servo Drive Functions

Status Indicators

The following seven indicators are mounted.



Name	Color	Description
PWR	Green	Displays the status of control power supply.
ERR	Red	Gives the Servo Drive error status.
ECAT-RUN	Green	Displays the EtherCAT communications status
ECAT-ERR	Red	Displays the EtherCAT communications status.
ECAT-L/A IN, ECAT-L/A OUT	Green	Lights or flashes according to the status of a link in the EtherCAT physical layer.
FS	Red/green	Displays the safety communications status.

7-segment LED Display

A 2-digit 7-segment LED display shows error numbers, the Servo Drive status, and other information.

ID Switches

Two rotary switches (0 to F hex) are used to set the EtherCAT node address.

Charge Lamp

Lights when the main circuit power supply carries electric charge.

Control I/O Connector (CN1)

Used for command input signals, I/O signals, and as the safety device connector. The short-circuit wire is installed on the safety signals before shipment.

Encoder Connector (CN2)

Connector for the encoder installed in the Servomotor.

EtherCAT Communications Connectors (ECAT IN CN10, ECAT OUT CN11)

These connectors are for EtherCAT communications.

USB Connector (CN7)

USB-Micro B Communications connector for the computer. This connector enables USB 2.0 Full Speed (12 Mbps) communications.

Brake Interlock Connector (CN12)

Used for brake interlock signals.

Main Circuit Connector (CNA)

Connector for the main circuit power supply input, control power supply input, external regeneration resistor, and DC reactor. Applicable models: R88D-1SN01L-ECT/-1SN02L-ECT/-1SN04L-ECT/-1SN01H-ECT/-1SN02H-ECT/-1SN04H-ECT/-1SN08H-ECT/-1SN10H-ECT/-1SN04H-ECT

Main Circuit Connector A (CNA)

Connector for the main circuit power supply input and external regeneration resistor. The connector differs depending on the model. Applicable models: R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN55H-ECT/-1SN75H-ECT/-1SN06F-ECT/-1SN10F-ECT/-1SN10F-ECT/-1SN10F-ECT/-1SN55F-ECT/-1SN75F-ECT/-1SN75F-ECT/-1SN10F-ECT/-1SN20F-ECT/-1SN55F-ECT/-1SN75F

Main Circuit Terminal Block (CNA)

Connector for the main circuit power supply input. Applicable models: R88D-1SN150H-ECT

Main Circuit Connector A (CNA)

Connector for the main circuit power supply input and AC reactor. Applicable models: R88D-1SN150F-ECT

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Main Circuit Connector B (CNB)

Connector for a DC reactor. The connector differs depending on the model.

Applicable models: R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN55H-ECT/-1SN75H-ECT/-1SN06F-ECT/-1SN10F-ECT/-1SN10F-ECT/-1SN10F-ECT/-1SN55F-ECT/-1SN75F

Main Circuit Connector B (CNB)

Connector for a external regeneration resistor. Applicable models: R88D-1SN150H-ECT/ -1SN150F-ECT

Control Power Supply Connector (CND)

Connector for control power supply input. The connector differs depending on the model. Applicable models: R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN55H-ECT/-1SN75H-ECT/-1SN150H-ECT/-1SN06F-ECT/--1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT/-1SN55F-ECT/-1SN75F-ECT/-1SN150F

Motor Connector (CNC)

Connector for the power line to the phase U, V, and W of the Servomotor. The connector differs depending on the model.

Motor Connection Terminal Block (CNC)

Connector for the power line to the phase U, V, and W of the Servomotor. Applicable models: R88D-1SN150H-ECT

Main Circuit Connector E (CNE)

Connector for a External Dynamic Brake Resistor. Applicable models: R88D-1SN55H-ECT/-1SN75H-ECT/-1SN150H-ECT/-1SN55F-ECT/-1SN75F-ECT/-1SN150F-ECT/-1

Terminal

The number of (-) terminals of the Servo Drives and their connection targets are as follows.

Model	Number of	Connection to
R88D-1SN01L-ECT/-1SN02L-ECT/-1SN04L-ECT/	1 on top	PE wire of the main circuit power supply cable.
-1SN01H-ECT/-1SN02H-ECT/-1SN04H-ECT/	2 on front	FG wire inside the control panel, and FG wire for the motor
-1SN08H-ECT/-1SN10H-ECT	1 on bottom	cable and shielded wire.
R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/	1 on top	PE wire of the main circuit power supply cable.
-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT/	2 on front	FG wire inside the control panel and the motor cable shielded
-1SN20F-ECT/-1SN30F-ECT	1 on bottom	wire.
	1 on top	PE wire of the main circuit power supply cable.
R88D-1SN55H-ECT/-1SN75H-ECT/-1SN150H-ECT/ -1SN55E-ECT/-1SN75E-ECT/-1SN150E-ECT	2 on front	FG wire inside the control panel and the motor cable shielded
	2 on bottom	wire.

Dimensions

(Unit: mm)

Single-phase 100 VAC: R88D-1SN01L-ECT (100 W) Single-phase/3-phase 200 VAC: R88D-1SN01H-ECT/-1SN02H-ECT (100 to 200 W)



Single-phase 100 VAC: R88D-1SN02L-ECT (200 W) Single-phase/3-phase 200 VAC: R88D-1SN04H-ECT (400 W)



Single-phase 100 VAC: R88D-1SN04L-ECT (400 W) Single-phase/3-phase 200 VAC: R88D-1SN08H-ECT (750 W) 3-phase 200 VAC: R88D-1SN10H-ECT (1 kW)



Single-phase/3-phase 200 VAC: R88D-1SN15H-ECT (1.5 kW) 3-phase 200 VAC: R88D-1SN20H-ECT/-1SN30H-ECT (2 to 3 kW) 3-phase 400 VAC: R88D-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT (600 W to 3 kW)



3-phase 200 VAC: R88D-1SN55H-ECT/-1SN75H-ECT (5.5 to 7.5 kW) 3-phase 400 VAC: R88D-1SN55F-ECT/-1SN75F-ECT (5.5 to 7.5kW)



3-phase 200 VAC: R88D-1SN150H-ECT (15 kW)

External dimensions



3-phase 400 VAC: R88D-1SN150F-ECT (15 kW)

External dimensions





Mounting dimensions

AC Servomotors [1S-series] **R88M-1L**/-1M

Contents

- Ordering Information
- Specifications
- Names and Functions
- External Dimensions



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Ordering Information

Refer to the Ordering Information.

Specifications

General Specifications

			Specifications			
nem						
A						
Operating ambi	ent temperatur	re and				
numiaity			20% to 90% (with no condensation)			
Storage ambien	t temperature	and humidity	-20 to 65°C			
Storage ambien	it temperature	and numberly	20% to 90% (with no condensation)			
Operating and s	storage atmosp	phere	No corrosive gases			
Vibration regist			Acceleration of 49 m/s ² *2			
vibration resist	ance * I		24.5 m/s ² max. in X, Y, and Z directions when the motor is stopped			
Impact resistance			Acceleration of 98 m/s ² max. 3 times each in X, Y, and Z directions			
Insulation resis	tance		Between power terminals and FG terminals: 10 $M\Omega$ min. (at 500 VDC Megger)			
			Between power terminals and FG terminals: 1,500 VAC for 1 min (voltage 100 V, 200 V)			
Dielectric stren	gth		Between power terminals and FG terminals: 1,800 VAC for 1 min (voltage 400 V)			
	-		Between brake terminal and FG terminals: 1,000 VAC for 1 min			
Insulation class	;		Class F			
			IP67 (except for the through-shaft part and connector pins)			
Protective struc	cture		IP20 if you use a 30-meter or longer encoder cable.			
Ell Low Voltago		Low Voltage				
International	Directives	Directive	EN 60034-1/-5			
standard	UL standards	;	UL 1004-1/-6			
	CSA standard	ls	CSA C22.2 No.100 (with cUR mark)			

*1. The amplitude may be increased by machine resonance. As a guideline, 80% of the specified value must not be exceeded.

***2.** 24.5 m/s² for servomotors of 7.5 kW or more.

Note: 1. Do not use the cable when it is laying in oil or water.

2. Do not expose the cable outlet or connections to stress due to bending or its own weight.

Encoder Specifications

Item	Specifications
Encoder system	Optical batteryless absolute encoder
Resolution per rotation	23 bits
Multi-rotation data hold	16 bits
Power supply voltage	5 VDC±10%
Current consumption	230 mA max.
Output signal	Serial communications
Output interface	RS485 compliant

Note: It is possible to use an absolute encoder as an incremental encoder.

Refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT® Communications User's Manual (Cat.No.1586) for details.

Characteristics

3,000-r/min Servomotors

		Model (R88M-)	·) 100 VAC				
	Item	Unit	1M05030S	1M10030S	1M20030S	1M40030S	
Rated output *1	*2	W	50	100	200	400	
Rated torque *1	*2	N∙m	0.159	0.318	0.637	1.27	
Rated rotation s	peed *1 *2	r/min		3,0	00		
Maximum rotatio	on speed	r/min		6,0	00		
Momentary max	imum torque *1 *3	N∙m	0.48	0.95	1.91	3.8	
Rated current *1	l *2	A (rms)	1.20	1.50	2.50	4.8	
Momentary max	imum current *1	A (rms)	4.00	4.70	8.40	14.7	
Potor inortio	Without brake	× 10 ⁻⁴ kg⋅m²	0.0418	0.0890	0.2232	0.4452	
Rotor mertia	With brake	× 10 ⁻⁴ kg⋅m²	0.0496	0.0968	0.2832	0.5052	
Applicable load	inertia	× 10 ⁻⁴ kg⋅m²	0.810	1.62	4.80	8.40	
Torque constant	*1	N·m/ A (rms)	0.14	0.24	0.28	0.30	
Power rate *1 *	5	kW/s	6.7	11.9	18.5	36.6	
Mechanical time constant *5		ms	1.7	1.1	0.76	0.61	
Electrical time constant		ms	0.67	0.84	2.4	2.4	
Allowable radial load *6 N		N	68	68	245	245	
Allowable thrust	load *6	N	58	58	88	88	
Waight	Without brake	kg	0.35	0.52	1.0	1.4	
weight	With brake	kg	0.59	0.77	1.3	1.9	
Radiator plate di	imensions (material)	mm	250 × 250 × t6 (aluminum)				
	Excitation voltage *8	v	24 VDC±10%				
	Current consumption (at 20°C)	Α	0.27	0.27	0.32	0.32	
	Static friction torque	N∙m	0.32 min.	0.32 min.	1.37 min.	1.37 min.	
	Attraction time	ms	25 max.	25 max.	30 max.	30 max.	
	Release time *9	ms	15 max.	15 max.	20 max.	20 max.	
Brake	Backlash	٥	1.2 max.	1.2 max.	1.2 max.	1.2 max.	
specifications	Allowable braking work	J	9	9	60	60	
~1	Allowable total work	J	9000	9,000	60,000	60,000	
	Allowable angular acceleration	rad/s ²		10,000) max.		
	Brake lifetime (acceleration/ deceleration)			10 million t	times min.		
	Insulation class			Clas	ss F		

For models with an oil seal, the following derating is used due to increase in friction torque.

	Model (R88M-)	1M05030S-O/ -OS2/	1M10030S-O/ -OS2/	1M20030S-O/ -OS2/	1M40030S-O/ -OS2/	
Item	Unit	-BO/ -BOS2	-BO/ -BOS2	-BO/ -BOS2	-BO/ -BOS2	
Derating rate	%	90	95	95	80	
Rated output	W	45	95	190	320	
Rated current	A (rms)	1.20	1.50	2.50	4.0	

		Model (R88M-)	200 VAC					
	Item	Unit	1M05030T	1M10030T	1M20030T	1M40030T	1M75030T	
Rated output *1	*2	W	50	100	200	400	750	
Rated torque *1	*2	N∙m	0.159	0.318	0.637	1.27	2.39	
Rated rotation sp	peed *1 *2	r/min		I	3,000		I	
Maximum rotatio	n speed	r/min			6,000			
Momentary maxi	mum torque *1 *3	N∙m	0.56 *4	1.11 * 4	2.2 * 4	4.5 * 4	8.4 * 4	
Rated current *1	*2	A (rms)	0.67	0.84	1.5	2.5	4.6	
Momentary maxi	mum current *1	A (rms)	2.60	3.10	5.6	9.1	16.9	
Deter inertie	Without brake	× 10 ⁻⁴ kg⋅m²	0.0418	0.0890	0.2232	0.4452	1.8242	
Rotor mertia	With brake	× 10 ⁻⁴ kg⋅m²	0.0496	0.0968	0.2832	0.5052	2.0742	
Applicable load i	nertia	× 10 ⁻⁴ kg⋅m²	0.810	1.62	4.80	8.40	19.4	
Torque constant	*1	N·m/ A (rms)	0.25	0.42	0.48	0.56	0.59	
Power rate *1 *5	5	kW/s	6.7	11.9	18.5	36.6	31.4	
Mechanical time constant *5		ms	1.7	1.2	0.78	0.56	0.66	
Electrical time constant		ms	0.67	0.83	2.4	2.6	3.3	
Allowable radial load *6		N	68	68	245	245	490	
Allowable thrust	load *6	N	58	58	88	88	196	
Weight Without brake With brake		kg	0.35	0.52	1.0	1.4	2.9	
		kg	0.59	0.77	1.3	1.9	3.9	
Radiator plate di	mensions (material)	mm	250 × 250 × t6 (aluminum)					
	Excitation voltage *8	V			24 VDC±10%			
	Current consumption (at 20°C)	Α	0.27	0.27	0.32	0.32	0.37	
	Static friction torque	N∙m	0.32 min.	0.32 min.	1.37 min.	1.37 min.	2.55 min.	
	Attraction time	ms	25 max.	25 max.	30 max.	30 max.	40 max.	
	Release time *9	ms	15 max.	15 max.	20 max.	20 max.	35 max.	
Brake	Backlash	0	1.2 max.	1.2 max.	1.2 max.	1.2 max.	1.0 max.	
specifications	Allowable braking work	J	9	9	60	60	250	
	Allowable total work	J	9000	9,000	60,000	60,000	250,000	
	Allowable angular acceleration	rad/s ²			10,000 max.			
	Brake lifetime (acceleration/ deceleration)			10) million times m	in.		
	Insulation class				Class F			

For models with an oil seal, the following derating is used due to increase in friction torque.

Model (R88M-)		1M05030T-O/ -OS2/	1M10030T-O/	1M20030T-O/	1M40030T-O/	1M75030T-O/
Item	Unit	-BO/ -BOS2	-OS2/ -BO/ -BOS2	-OS2/ -BO/ -BOS2	-OS2/ -BO/ -BOS2	-OS2/ -BO/ -BOS2
Derating rate	%	90	95	95	80	90
Rated output	W	45	95	190	320	675
Rated current	A (rms)	0.67	0.84	1.5	2.1	4.2

		Model (R88M-)	200 VAC						
Item		Unit	1L1K030T	1L1K530T	1L2K030T	1L3K030T	1L4K030T	1L4K730T	
Rated output *1	*2	W	1,000	1,500	2,000	3,000	4,000	4,700	
Rated torque *1	*2	N∙m	3.18	4.77	6.37	9.55	12.7	15.0	
Rated rotation sp	peed *1 *2	r/min			3	3,000			
Maximum rotatio	on speed	r/min	5,000						
Momentary maxi	mum torque *1 *3	N∙m	9.55	14.3	19.1	28.7	38.2	47.7	
Rated current *1	*2	A (rms)	5.2	8.8	12.5	17.1	22.8	25.7	
Momentary maxi	mum current *1	A (rms)	16.9	28.4	41.0	54.7	74	84.8	
Rotor inertia	Without brake	× 10 ⁻⁴ kg⋅m²	2.1042	2.1042	2.4042	6.8122	8.8122	10.6122	
Notor mentia	With brake	× 10 ⁻⁴ kg⋅m²	2.5542	2.5542	2.8542	7.3122	11.3122	13.1122	
Applicable load i	nertia	× 10⁻⁴ kg⋅m²	35.3	47.6	60.2	118	213	279	
Torque constant	*1	N·m/ A (rms)	0.67	0.58	0.56	0.64	0.63	0.65	
Power rate *1 *	5	kW/s	48	108	169	134	183	209	
Mechanical time constant *5		ms	0.58	0.58	0.50	0.47	0.37	0.37	
Electrical time co	onstant	ms	5.9	6.1	6.4	11	12	12	
Allowable radial	load *6	N	490 880				880		
Allowable thrust load *6 N		N	196				343		
Weight	Without brake	kg	5.7	5.7	6.4	11.5	13.5	16	
Weight	With brake	kg	7.4	7.4	8.1	12.5	16	18.5	
Radiator plate di	mensions (material)	mm	400 × 400 × t20 (aluminum)		470 × 470 × t20 (aluminum)			540 × 540 × t20 (aluminum)	
	Excitation voltage *8	V			24 V	DC±10%		-	
	Current consumption (at 20°C)	Α	0.70	0.70	0.70	0.66	0.6	0.6	
	Static friction torque	N∙m	9.3 min.	9.3 min.	9.3 min.	12.0 min.	16 min.	16 min.	
	Attraction time	ms	100 max.	100 max.	100 max.	100 max.	150 max.	150 max.	
	Release time *9	ms	30 max.	30 max.	30 max.	30 max.	50 max.	50 max.	
Brake	Backlash	٥	1.0 max.	1.0 max.	1.0 max.	0.8 max.	0.6 max.	0.6 max.	
specifications *7	Allowable braking work	J	500	500	500	1,000	350	350	
*1	Allowable total work	J	900,000	900,000	900,000	3,000,000	1,000,000	1,000,000	
	Allowable angular acceleration	rad/s ²			10,0	000 max.			
	Brake lifetime (acceleration/ deceleration)				10 millio	n times min.			
	Insulation class				С	lass F			

		Model (R88M-)	400 VAC				
Item		Unit	1L75030C	1L1K030C	1L1K530C		
Rated output *1	*2	W	750	1,000	1,500		
Rated torque *1	*2	N∙m	2.39	3.18	4.77		
Rated rotation s	peed *1 *2	r/min		3,000			
Maximum rotatio	on speed	r/min		5,000			
Momentary max	imum torque *1 *3	N∙m	7.16	9.55	14.3		
Rated current *1	l *2	A (rms)	3.0	3.0	4.5		
Momentary max	imum current *1	A (rms)	9.6	9.6	14.1		
Dotor inortio	Without brake	× 10 ⁻⁴ kg⋅m²	1.3042	2.1042	2.1042		
notor mertia	With brake	× 10⁻⁴ kg⋅m²	1.7542	2.5542	2.5542		
Applicable load	inertia	× 10⁻⁴ kg⋅m²	38.6	35.3	47.6		
Torque constant	: *1	N·m/ A (rms)	0.91	1.17	1.17		
Power rate *1 *5		kW/s	44	48	108		
Mechanical time constant *5		ms	1.09	0.6	0.58		
Electrical time constant		ms	4.3	5.9	5.9		
Allowable radial load *6		N	490				
Allowable thrust load *6		Ν					
Weight	Without brake	kg	4.1	5.7	5.7		
Weight	With brake	kg	5.8	7.4	7.4		
Radiator plate d	imensions (material)	mm	305 × 305 × t20 (aluminum)	20 (aluminum)			
	Excitation voltage *8	V		24 VDC±10%			
	Current consumption (at 20°C)	Α	0.70	0.70	0.70		
	Static friction torque	N∙m	9.3 min.	9.3 min.	9.3 min.		
	Attraction time	ms	100 max.	100 max.	100 max.		
	Release time *9	ms	30 max.	30 max.	30 max.		
Brake	Backlash	0	1.0 max.	1.0 max.	1.0 max.		
specifications	Allowable braking work	J	500	500	500		
本 /	Allowable total work	J	900,000	900,000	900,000		
	Allowable angular acceleration	rad/s ²		10,000 max.			
	Brake lifetime (acceleration/ deceleration)			10 million times min.			
	Insulation class			Class F			

Model (R88M-)			400 VAC				
	Item	Unit	1L2K030C	1L3K030C	1L4K030C	1L5K030C	
Rated output *1	*2	w	2,000	3,000	4,000	5,000	
Rated torque *1	*2	N∙m	6.37	9.55	12.7	15.9	
Rated rotation s	peed *1 *2	r/min		3,0	000		
Maximum rotatio	on speed	r/min	5,000				
Momentary maxi	mum torque *1 *3	N∙m	19.1	28.7	38.2	47.7	
Rated current *1	*2	A (rms)	6.3	8.7	12.8	13.6	
Momentary maxi	mum current *1	A (rms)	19.8	27.7	42.4	42.4	
Potor inortia	Without brake	× 10 ⁻⁴ kg⋅m²	2.4042	6.8122	8.8122	10.6122	
	With brake	× 10 ⁻⁴ kg⋅m²	2.8542	7.3122	11.3122	13.1122	
Applicable load	inertia	× 10 ⁻⁴ kg⋅m²	60.2	118	213	279	
Torque constant	*1	N·m/ A (rms)	1.15	1.23	1.11	1.32	
Power rate *1 *	5	kW/s	169	134	183	238	
Mechanical time constant *5		ms	0.52	0.49	0.36	0.35	
Electrical time constant		ms	6.3	11	12	13	
Allowable radial load *6		N	490		880		
Allowable thrust	load *6	N	196		343		
Weight	Without brake	kg	6.4	11.5	13.5	16	
height	With brake	kg	8.1	12.5	16	18.5	
Radiator plate di	mensions (material)	mm	470 × 470 × t20 (aluminum)			540 × 540 × t20 (aluminum)	
	Excitation voltage *8	V		24 VD	C±10%		
	Current consumption (at 20°C)	Α	0.70	0.66	0.6	0.6	
	Static friction torque	N∙m	9.3 min.	12 min.	16 min.	16 min.	
	Attraction time	ms	100 max.	100 max.	150 max.	150 max.	
	Release time *9	ms	30 max.	30 max.	50 max.	50 max.	
Brake	Backlash	0	1.0 max.	0.8 max.	0.6 max.	0.6 max.	
specifications	Allowable braking work	J	500	1,000	350	350	
~1	Allowable total work	J	900,000	3,000,000	1,000,000	1,000,000	
	Allowable angular acceleration	rad/s ²		10,000	00 max.		
	Brake lifetime (acceleration/ deceleration)			10 million	times min.		
	Insulation class			Clas	ss F		

*1. This is a typical value for when the Servomotor is used at a normal temperature (20°C, 65%) in combination with a Servo Drive.

*2. The rated values are the values with which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

***3.** The momentary maximum torque is approximately 300% of the rated torque, except for some models.

*4. The momentary maximum torque is approximately 350% of the rated torque. Output at the momentary maximum torque shortens detection time of the overload protection function. Refer to Electronic Thermal Function in the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat.No.1586) for details.

*5. This value is for models without options.

*6. The allowable radial and thrust loads are the values determined for a limit of 20,000 hours at normal operating temperatures. The allowable radial loads are applied as shown in the following diagram.



*7. When the brake is released for a vertical axis, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat.No.1586) to set an appropriate value for Brake Interlock Output (4610 hex).

***8.** This is a non-excitation brake. It is released when excitation voltage is applied.

***9.** This value is a reference value.

Torque-Rotation Speed Characteristics for 3,000-r/min Servomotors (100 VAC)

The following graphs show the characteristics with a 3-m standard cable and a 100 VAC input.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate. Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate. Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

Torque-Rotation Speed Characteristics for 3,000-r/min Servomotors (400 VAC) The following graphs show the characteristics with a 3-m standard cable and a 3-phase 400 VAC input. • R88M-1L1K030C R88M-1L75030C • R88M-1L1K530C Momentary Momentary Torque[N·m] Torque[N·m] Torque[N·m] Momentary operation range operation range operation range Continuous Continuous Continuous operation range operation range operation range 1000 2000 3000 4000 1000 2000 3000 Ò Rotation[r/min] Rotation[r/min] Rotation[r/min] • R88M-1L2K030C • R88M-1L3K030C • R88M-1L4K030C Momentary Momentary operation range Torque[N·m] Torque[N·m] Torque[N·m] Momentary operation range operation range Continuous Continuous Continuous operation range operation range operation range Rotation[r/min] Rotation[r/min] Rotation[r/min] R88M-1L5K030C 45-Momentary operation range Torque[N·m] 20 15 Continuous operation range Rotation[r/min]

Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

2,000-r/min Servomotors

Model (R88M-)			200 VAC				
Item		Unit	1M1K020T	1M1K520T	1M2K020T	1M3K020T	
Rated output *1	*2	W	1,000	1,500	2,000	3,000	
Rated torque *1	*2	N∙m	4.77	7.16	9.55	14.3	
Rated rotation sp	peed *1 *2	r/min		2,0	00	·	
Maximum rotatio	on speed	r/min		3,0	000		
Momentary maxi	mum torque *1	N∙m	14.3	21.5	28.7	43.0	
Rated current *1	*2	A (rms)	5.2	8.6	11.3	15.7	
Momentary maxi	mum current *1	A (rms)	16.9	28.4	40.6	54.7	
Potor inortio	Without brake	× 10 ⁻⁴ kg⋅m²	6.0042	9.0042	12.2042	15.3122	
Rotor mertia	With brake	× 10 ⁻⁴ kg⋅m²	6.5042	9.5042	12.7042	17.4122	
Applicable load i	nertia	× 10 ⁻⁴ kg⋅m²	59.0	79.9	100	142	
Torque constant	*1	N·m/ A (rms)	0.93	0.83	0.85	0.93	
Power rate *1 *3	3	kW/s	38	57	75	134	
Mechanical time constant *3		ms	0.94	0.78	0.81	0.80	
Electrical time constant		ms	13	15	14	19	
Allowable radial load *4		N		490		784	
Allowable thrust	load *4	N	196			343	
Woight	Without brake	kg	6.6	8.5	10	12	
weight	With brake	kg	8.6	10.5	12	15	
Radiator plate di	mensions (material)	mm	400 × 400 × t20 (aluminum) 470 × 470 × t20 (aluminum)				
	Excitation voltage *6	v		24 VD0	C±10%		
	Current consumption (at 20°C)	Α	0.51	0.51	0.66	0.60	
	Static friction torque	N∙m	9.0 min.	9.0 min.	12 min.	16 min.	
	Attraction time	ms	100 max.	100 max.	100 max.	150 max.	
	Release time *7	ms	30 max.	30 max.	30 max.	50 max.	
Brake	Backlash	0	0.6 max.	0.6 max.	0.6 max.	0.6 max.	
specifications	Allowable braking work	J	1,000	1,000	1,000	350	
*3	Allowable total work	J	3,000,000	3,000,000	3,000,000	1,000,000	
	Allowable angular acceleration	rad/s ²		10,000) max.	1	
	Brake lifetime (acceleration/ deceleration)			10 million	times min.		
-	Insulation class			Clas	ss F		
AC Servo System 1S-series

		Model (R88M-)	•) 400 VAC				
	Item	Unit	1M40020C	1M60020C	1M1K020C		
Rated output *1	*2	W	400	600	1,000		
Rated torque *1	*2	N∙m	1.91	2.86	4.77		
Rated rotation s	peed *1 *2	r/min		2,000			
Maximum rotatio	on speed	r/min		3,000			
Momentary maxi	mum torque *1	N∙m	5.73	8.59	14.3		
Rated current *1	*2	A (rms)	1.1	1.6	2.9		
Momentary maxi	mum current *1	A (rms)	3.9	5.5	9.4		
Potor inortio	Without brake	× 10 ⁻⁴ kg⋅m²	2.5042	3.9042	6.0042		
Rotor mertia	With brake	× 10 ⁻⁴ kg⋅m²	2.8472	4.2472	6.5042		
Applicable load i	inertia	× 10 ⁻⁴ kg⋅m²	19.0	23.5	59.0		
Torque constant	*1	N·m/ A (rms)	1.75	1.84	1.69		
Power rate *1 *3	3	kW/s	14.6	21.0	38		
Mechanical time	constant *3	ms	1.57	1.21	0.94		
Electrical time constant		ms	6.8	7.8	13		
Allowable radial load *4		Ν	490				
Allowable thrust load *4		N					
Woight	Without brake	kg	3.9	4.7	6.6		
weight	With brake	kg	4.8	5.8	8.6		
Radiator plate di	mensions (material)	mm	$305 \times 305 \times 10^{-1}$	t12 (aluminum)	400 × 400 × t20 (aluminum)		
	Excitation voltage *6	V		24 VDC±10%			
	Current consumption (at 20°C)	Α	0.30	0.30	0.51		
	Static friction torque	N∙m	3.92 min.	3.92 min.	9.0 min.		
	Attraction time	ms	40 max.	40 max.	100 max.		
	Release time *7	ms	25 max.	25 max.	30 max.		
Brake	Backlash	٥	1.0 max.	1.0 max.	0.6 max.		
specifications	Allowable braking work	J	330	330	1,000		
*0	Allowable total work	J	330,000	330,000	3,000,000		
	Allowable angular acceleration	rad/s ²		10,000 max.			
	Brake lifetime (acceleration/ deceleration)			10 million times min.			
	Insulation class		Class F				

AC Servo System 1S-series

Model (R88M-)			400 VAC				
	Item	Unit	1M1K520C	1M2K020C	1M3K020C		
Rated output *1	*2	w	1,500	2,000	3,000		
Rated torque *1	*2	N∙m	7.16	9.55	14.3		
Rated rotation s	peed *1 *2	r/min		2,000			
Maximum rotatio	on speed	r/min		3,000			
Momentary max	mum torque *1	N∙m	21.5	28.7	43.0		
Rated current *1	*2	A (rms)	4.1	5.7	8.6		
Momentary max	mum current *1	A (rms)	13.5	19.8	28.3		
Botor inortio	Without brake	× 10 ⁻⁴ kg·m ²	9.0042	12.2042	15.3122		
notor mertia	With brake	× 10 ⁻⁴ kg⋅m²	9.5042	12.7042	17.4122		
Applicable load	inertia	× 10 ⁻⁴ kg⋅m²	79.9	100	142		
Torque constant	:*1	N·m/ A (rms)	1.75	1.75	1.74		
Power rate *1 *	3	kW/s	57	75	134		
Mechanical time	constant *3	ms	0.85 0.80		0.76		
Electrical time constant		ms	13	14	20		
Allowable radial	load *4	N	4	190	784		
Allowable thrust	load *4	N	196		343		
Woight	Without brake	kg	8.5	10	12		
weight	With brake	kg	10.5	12	15		
Radiator plate di	mensions (material)	mm	470 × 470 × t20 (aluminum)				
	Excitation voltage *6	v		24 VDC±10%			
	Current consumption (at 20°C)	Α	0.51	0.66	0.60		
	Static friction torque	N∙m	9.0 min.	12 min.	16 min.		
	Attraction time	ms	100 max.	100 max.	150 max.		
	Release time *7	ms	30 max.	30 max.	50 max.		
Brake	Backlash	0	0.6 max.	0.6 max.	0.6 max.		
specifications	Allowable braking work	J	1,000	1,000	350		
*2	Allowable total work	J	3,000,000	3,000,000	1,000,000		
	Allowable angular acceleration	rad/s ²		10,000 max.			
	Brake lifetime (acceleration/ deceleration)			10 million times min.			
	Insulation class		Class F				

*1. This is a typical value for when the Servomotor is used at a normal temperature (20°C, 65%) in combination with a Servo Drive.

*2. The rated values are the values with which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

***3.** This value is for models without options.

***4.** The allowable radial and thrust loads are the values determined for a limit of 20,000 hours at normal operating temperatures. The allowable radial loads are applied as shown in the following diagram.



*5. When the brake is released for a vertical axis, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat.No.I586) to set an appropriate value for Brake Interlock Output (4610 hex).

*6. This is a non-excitation brake. It is released when excitation voltage is applied.

***7.** This value is a reference value.

Torque-Rotation Speed Characteristics for 2,000-r/min Servomotors (200 VAC)

The following graphs show the characteristics with a 3-m standard cable and a 3-phase 200-VAC or single-phase 220-VAC input.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate. Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

Torque-Rotation Speed Characteristics for 2,000-r/min Servomotors (400 VAC)

The following graphs show the characteristics with a 3-m standard cable and a 400 VAC input.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate. Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

1,500-r/min Servomotors

Model (R88M-)			200 VAC				
Item		Unit	1M4K015T	1M5K015T	1M7K515T	1M11K015T	1M15K015T
Rated output *	1 *2	W	4,000	5,000	7,500	11,000	15,000
Rated torque *	1 *2	N∙m	25.5	31.8	47.8	70.0	95.5
Rated rotation a	speed *1 *2	r/min			1,500		
Maximum rotati	ion speed	r/min		3,000		2,0	00
Momentary max	kimum torque *1	N∙m	75	95	119	175	224
Rated current *	:1 *2	A (rms)	25.7	25.8	41.2	57	60.7
Momentary max	kimum current *1	A (rms)	84.8	84.8	113.0	150.0	150.0
Potor inortio	Without brake	× 10 ⁻⁴ kg⋅m²	54.0122	77.0122	113.0122	229.0122	340.0122
Hotor mertia	With brake	× 10 ⁻⁴ kg⋅m²	60.0122	83.0122	118.0122	253.0122	365.0122
Applicable load	inertia	× 10 ⁻⁴ kg⋅m²	687	955	1,070	2,200	3,110
Torque constar	nt *1	N·m/ A (rms)	1.08	1.36	1.29	1.40	1.79
Power rate *1 *	k3	kW/s	120	131	202	214	268
Mechanical time	e constant *3	ms	1	1.1	0.75	0.61	0.56
Electrical time	constant	ms	19	19	24	32	32
Allowable radia	l load *4	N	1,200	1,470	1,470	2,500	2,500
Allowable thrus	st load *4	N	343	490	490	686	686
Woight	Without brake	kg	21	29	39	63	85
weight	With brake	kg	26	34	45	73	99
Radiator plate of	limensions (material)	mm	470 × 470 × t20 (aluminum)	20 540 × 540 × t20 (aluminum) 670 × 630 × t35 (a			35 (aluminum)
	Excitation voltage *6	v			24 VDC±10%		
	Current consumption (at 20°C)	Α	1.0	1.0	1.4	1.7	0.92
	Static friction torque	N∙m	32 min.	42 min.	54.9 min.	90 min.	100 min.
	Attraction time	ms	150 max.	150 max.	300 max.	300 max.	600 max.
	Release time *7	ms	60 max.	60 max.	140 max.	140 max.	215 max.
Brake	Backlash	0	0.8 max.	0.8 max.	0.2 max.	0.2 max.	0.2 max.
specifications Alle	Allowable braking work	J	1,400	1,400	830	1,400	1,400
~0	Allowable total work	J	4,600,000	4,600,000	2,500,000	4,600,000	6,100,000
-	Allowable angular acceleration	rad/s ²	10,000) max.	5,000 max.	3,000	max.
	Brake lifetime (acceleration/ deceleration)			10) million times mi	n.	
	Insulation class		Class F				

		Model (R88M-)	-) 400 VAC				
Item		Unit	1M4K015C	1M5K515C	1M7K515C	1M11K015C	1M15K015C
Rated output **	1 *2	w	4,000	5,500	7,500	11,000	15,000
Rated torque *	1 *2	N∙m	25.5	35.0	47.8	70	95.5
Rated rotation s	speed *1 *2	r/min		I	1,500		I
Maximum rotati	on speed	r/min		3,000		2,0	000
Momentary max	cimum torque *1	N∙m	75	95	119	175	224
Rated current *	:1 *2	A (rms)	12.8	14.0	22.0	31.4	33.3
Momentary max	cimum current *1	A (rms)	42.4	42.4	56.5	80.7	81.2
Datas in astis	Without brake	× 10 ⁻⁴ kg⋅m²	54.0122	77.0122	113.0122	229.0122	340.0122
Rotor inertia	With brake	× 10 ⁻⁴ kg⋅m²	60.0122	83.0122	118.0122	253.0122	365.0122
Applicable load	inertia	× 10⁻⁴ kg⋅m²	687	955	1070	2200	3110
Torque constan	ıt *1	N·m/ A (rms)	2.07	2.68	2.49	2.6	3.27
Power rate *1 *	<3	kW/s	120	159	202	214	268
Mechanical time	e constant *3	ms	1.2	1	0.78	0.63	0.62
Electrical time of	constant	ms	18	19	23	29	29
Allowable radia	l load *4	N	1,200	1,470	1470	2,500	2,500
Allowable thrust load *4		N	343	490	490	686	686
Waight	Without brake	kg	21	29	39	63	85
weight	With brake	kg	26	34	45	73	99
Radiator plate of	limensions (material)	mm	470 × 470 × t20 540 x 540x t20 (aluminum)			$670 \times 630 \times t_{2}^{2}$	35 (aluminum)
	Excitation voltage *6	v			24 VDC ± 10%		
	Current consumption (at 20°C)	Α	1.0	1.0	1.4	1.7	0.92
	Static friction torque	N∙m	32 min.	42 min.	54.9 min.	90 min.	100 min.
	Attraction time	ms	150 max.	150 max.	300 max.	300 max.	600 max.
	Release time *7	ms	60 max.	60 max.	140 max.	140 max.	215 max.
Brake	Backlash	٥	0.8 max.	0.8 max.	0.2 max.	0.2 max.	0.2 max.
specifications	Allowable braking work	J	1,400	1,400	830	1,400	1,400
*J -	Allowable total work	J	4,600,000	4,600,000	2,500,000	4,600,000	6,100,000
	Allowable angular acceleration	rad/s ²	10,000) max.	5,000 max.	3,000	max.
	Brake lifetime (acceleration/ deceleration)			10	0 million times mi	n.	
	Insulation class				Class F		

*1. This is a typical value for when the Servomotor is used at a normal temperature (20°C, 65%) in combination with a Servo Drive.

*2. The rated values are the values with which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

***3.** This value is for models without options.

*4. The allowable radial and thrust loads are the values determined for a limit of 20,000 hours at normal operating temperatures. The allowable radial loads are applied as shown in the following diagram.



***5.** When the brake is released for a vertical axis, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat.No.I586) to set an appropriate value for Brake Interlock Output (4610 hex).

***6.** This is a non-excitation brake. It is released when excitation voltage is applied.

***7.** This value is a reference value.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate. Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

Torque-Rotation Speed Characteristics for 1,500-r/min Servomotors (400 VAC)

The following graphs show the characteristics with a 3-m standard cable and a 400 VAC input.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

1,000-1/11111	361 101101013							
Model (R88M-)				200 VAC				
	Item	Unit	1M90010T	1M2K010T	1M3K010T			
Rated output *1	*2	w	900	2,000	3,000			
Rated torque *1	*2	N∙m	8.59	19.1	28.7			
Rated rotation sp	peed *1 *2	r/min		1,000				
Maximum rotatio	on speed	r/min		2,000				
Momentary maxi	mum torque *1	N∙m	19.3	47.7	71.7			
Rated current *1	*2	A (rms)	6.7	14.4	21.2			
Momentary maxi	mum current *1	A (rms)	16.9	40.6	54.7			
Deter inertie	Without brake	× 10 ⁻⁴ kg⋅m²	9.0042	40.0122	68.0122			
Rotor mertia	With brake	× 10 ⁻⁴ kg⋅m²	9.5042	45.1122	73.1122			
Applicable load i	nertia	× 10 ⁻⁴ kg⋅m²	79.9	314	492			
Torque constant	*1	N·m/ A (rms)	1.28	1.45	1.51			
Power rate *1 *3	3	kW/s	82	91	121			
Mechanical time constant *3		ms	0.77	1.0	0.83			
Electrical time constant		ms	15	15 18				
Allowable radial load *4		N	686	1,176	1,470			
Allowable thrust	load *4	N	196	90				
Weight	Without brake	kg	8.5	18	28			
weight	With brake	kg	10.5	22	33			
Radiator plate di	mensions (material)	mm	470 × 470 × t2	20 (aluminum)	540 × 540 × t20 (aluminum)			
	Excitation voltage *6	V		24 VDC±10%				
	Current consumption (at 20°C)	Α	0.51	1.2	1.0			
	Static friction torque	N∙m	9.0 min.	22 min.	42 min.			
	Attraction time	ms	100 max.	120 max.	150 max.			
	Release time *7	ms	30 max.	50 max.	60 max.			
Brake	Backlash	٥	0.6 max.	0.8 max.	0.8 max.			
specifications	Allowable braking work	J	1,000	1,400	1,400			
*5	Allowable total work	J	3,000,000	4,600,000	4,600,000			
	Allowable angular acceleration	rad/s ²		10,000 max.				
	Brake lifetime (acceleration/ deceleration)			10 million times min.				
	Insulation class		Class F					

1,000-r/min Servomotors

AC Servo System 1S-series

Model (R88M-)			400 VAC				
	Item	Unit	1M90010C	1M2K010C	1M3K010C		
Rated output *1	*2	w	900	2,000	3,000		
Rated torque *1	*2	N∙m	8.59	19.1	28.7		
Rated rotation s	peed *1 *2	r/min		1,000			
Maximum rotatio	on speed	r/min		2,000			
Momentary max	mum torque *1	N∙m	19.3	47.7	71.7		
Rated current *1	*2	A (rms)	3.6	7.1	10.6		
Momentary max	mum current *1	A (rms)	9.0	19.5	27.7		
Rotor inertia	Without brake	× 10 ⁻⁴ kg⋅m²	9.0042	40.0122	68.0122		
Notor mertia	With brake	× 10 ⁻⁴ kg⋅m²	9.5042	45.1122	73.1122		
Applicable load	inertia	× 10 ⁻⁴ kg⋅m²	79.9	314	492		
Torque constant	: *1	N·m/ A (rms)	2.41	3.00	2.97		
Power rate *1 *	3	kW/s	82	91	121		
Mechanical time	constant *3	ms	0.88	1.2	0.92		
Electrical time constant		ms	13	16	19		
Allowable radial load *4		N	686	1,176	1,470		
Allowable thrust	load *4	N	196	490			
Weight	Without brake	kg	8.5	18	28		
Weight	With brake	kg	10.5	22	33		
Radiator plate di	mensions (material)	mm	470 × 470 × ťź	20 (aluminum)	540 × 540 × t20 (aluminum)		
	Excitation voltage *6	v		24 VDC±10%			
	Current consumption (at 20°C)	Α	0.51	1.2	1.0		
	Static friction torque	N∙m	9.0 min.	22 min.	42 min.		
	Attraction time	ms	100 max.	120 max.	150 max.		
	Release time *7	ms	30 max.	50 max.	60 max.		
Brake	Backlash	0	0.6 max.	0.8 max.	0.8 max.		
specifications *5	Allowable braking work	J	1,000	1,400	1,400		
	Allowable total work	J	3,000,000	4,600,000	4,600,000		
	Allowable angular acceleration	rad/s ²					
	Brake lifetime (acceleration/ deceleration)			10 million times min.			
	Insulation class		- Class F				

*1. This is a typical value for when the Servomotor is used at a normal temperature (20°C, 65%) in combination with a Servo Drive.

*2. The rated values are the values with which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

***3.** This value is for models without options.

***4.** The allowable radial and thrust loads are the values determined for a limit of 20,000 hours at normal operating temperatures. The allowable radial loads are applied as shown in the following diagram.



***5.** When the brake is released for a vertical axis, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat.No.I586) to set an appropriate value for Brake Interlock Output (4610 hex).

***6.** This is a non-excitation brake. It is released when excitation voltage is applied.

***7.** This value is a reference value.

Torque-Rotation Speed Characteristics for 1,000-r/min Servomotors (200 V/400 VAC)

The following graphs show the characteristics with a 3-m standard cable and a single-phase 220-VAC or 3-phase 400-VAC input.



Note: The continuous operation range is the range in which continuous operation is possible at an ambient temperature of 40°C when the Servomotor is horizontally installed on a specified radiator plate.

Continuous operation at the maximum speed is also possible. However, doing so will reduce the output torque.

AC Servo System 1S-series

Part Names

Servomotor Part Names

Flange Size of 80 × 80 or less



Flange Size of 100 × 100 or more



Flange Size of 130 × 130 or more (4 kW or more)



200 VAC 1.5 kW Servomotors (with Brake)

200VAC 4kW Servomotors (with Brake)

Servomotor Functions

Shaft

The load is mounted on this shaft.

The direction which is in parallel with the shaft is called the thrust direction, and the direction which is perpendicular to the shaft is called the radial direction.

Flange

Used for mounting the Servomotor on the equipment. Fit the mating part into the equipment and use the mounting holes to screw the Servomotor.

Power Connector

Used for supplying power to the phase U, V, and W of the Servomotor.

For Servomotors with a brake and flange size of 100×100 or more, the pins for power and brake are set on the same connector. In the case of a Servomotor with its flange size \Box 130 or more, the cable outlet direction can be selected. The change of the cable outlet direction shall be up to five times.

Encoder Connector

Used for supplying power to the encoder of the Servomotor and communicating with the Servo Drive. When a Servomotor at 3000 r/min 4 kW or more and a Servomotor at 1500 r/min are selected, use encoder cables with metal shell type (for applicable Servomotor type B at 4 kw or more).

Brake Connector

Used for supplying power to the brake coil of the Servomotor. This part is attached only to the Servomotors with a brake and flange size of 80×80 or less.

Eye-bolt

Used for lifting and moving the motor by putting a wire rope, for example, through the shaft.

External Dimensions

3,000-r/min Servomotors (100 V and 200 V)

50 W (without Brake)

R88M-1M05030S(-O/-S2/-OS2) R88M-1M05030T(-O/-S2/-OS2)



Model	Dimensions [mm]		
Woder	LL		
R88M-1M05030S(-S2) R88M-1M05030T(-S2)	67.5±1		
R88M-1M05030S-O(S2) R88M-1M05030T-O(S2)	72.5±1		

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

50 W (with Brake) R88M-1M05030S-B(O/S2/OS2) R88M-1M05030T-B(O/S2/OS2)



Model	Dimensions [mm]				
Model	LL				
R88M-1M05030S-B(S2) R88M-1M05030T-B(S2)	103.5±1				
R88M-1M05030S-BO(S2) R88M-1M05030T-BO(S2)	108.5±1				

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model	Dimensions [mm]						
Model	QA	QK	w	Т	U	QE	LT
R88M-1M05030S (-S2/-OS2)	2	12	3 _{-0.025}	3	1.2 ⁰ _{-0.2}	M3	8
R88M-1M05030T (-S2/-OS2)	2	12	3 _{-0.025}	3	1.2 ⁰ .0.2	МЗ	8

Shaft-end with key and tap



Model	Dimensions [mm]							
Model	QA	QK	w	т	U	QE	LT	
R88M-1M05030S-B (S2/OS2)	2	12	3 _{-0.025}	3	1.2.0.2	M3	8	
R88M-1M05030T-B (S2/OS2)	2	12	3 _{-0.025}	3	1.2 ⁰ _{-0.2}	M3	8	

100 W (without Brake) R88M-1M10030S(-O/-S2/-OS2) R88M-1M10030T(-O/-S2/-OS2)



Madal	Dimensions [mm]
Woder	LL
R88M-1M10030S(-S2) R88M-1M10030T(-S2)	90±1
R88M-1M10030S-O(S2) R88M-1M10030T-O(S2)	95±1

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

100 W (with Brake) R88M-1M10030S-B(O/S2/OS2) R88M-1M10030T-B(O/S2/OS2)



Model	Dimensions [mm]			
Model	LL			
R88M-1M10030S-B(S2) R88M-1M10030T-BS2)	126±1			
R88M-1M10030S-BO(S2) R88M-1M10030T-BO(S2)	131±1			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model		Dimensions [mm]								
	QA	QK	w	Т	U	QE	LT			
R88M- 1M10030S(-S2/-OS2)	2	12	3 ⁰ -0.025	3	1.2 ⁰ .0.2	M3	8			
R88M- 1M10030T(-S2/-OS2)	2	12	3 ⁰ -0.025	3	1.2 ⁰ _{-0.2}	М3	8			





Model	Dimensions [mm]								
Model	QA	QK	W	т	U	QE	LT		
R88M- 1M10030S-B(S2/OS2)	2	12	3 ⁰ -0.025	3	1.2 ⁰ -0.2	M3	8		
R88M- 1M10030T-B(S2/OS2)	2	12	3 ⁰ _{-0.025}	3	1.2 _{-0.2}	MЗ	8		

200 W/400 W (without Brake) R88M-1M20030S(-O/-S2/-OS2)/R88M-1M20030T(-O/-S2/-OS2) R88M-1M40030S(-O/-S2/-OS2)/R88M-1M40030T(-O/-S2/-OS2)



Model	Dimensio	ons [mm]
WOUEI	S	LL
R88M-1M20030S(-S2) R88M-1M20030T(-S2)	11 _{-0.011} dia.	79.5±1
R88M-1M40030S(-S2) R88M-1M40030T(-S2)	14 _{-0.011} dia.	105.5±1
R88M-1M20030S-O(S2) R88M-1M20030T-O(S2)	11 _{-0.011} dia.	86.5±1
R88M-1M40030S-O(S2) R88M-1M40030T-O(S2)	14 _{-0.011} dia.	112.5±1

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

200 W/400 W (with Brake) R88M-1M20030S-B(O/S2/OS2)/R88M-1M20030T-B(O/S2/OS2) R88M-1M40030S-B(O/S2/OS2)/R88M-1M40030T-B(O/S2/OS2)



Madal	Dimensions [mm]				
WOder	S	LL			
R88M-1M20030S-B(S2) R88M-1M20030T-B(S2)	11 _{-0.011} dia.	107.5±1			
R88M-1M40030S-B(S2) R88M-1M40030T-B(S2)	14 _{-0.011} dia.	133.5±1			
R88M-1M20030S-BO(S2) R88M-1M20030T-BO(S2)	11.0.011 dia.	114.5±1			
R88M-1M40030S-BO(S2) R88M-1M40030T-BO(S2)	14 _{-0.011} dia.	140.5±1			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model	Dimensions [mm]								
Model	QA	QK	W	Т	U	QE	LT		
R88M- 1M20030S(-S2/-OS2)	2	20	4 _{-0.03}	4	1.5 ⁰ -0.2	M4	10		
R88M- 1M20030T(-S2/-OS2)	2	20	4 _{-0.03}	4	1.5 _{-0.2}	M4	10		
R88M- 1M40030S(-S2/-OS2)	2	20	5 _{-0.03}	5	2 _{-0.2}	M5	12		
R88M- 1M40030T(-S2/-OS2)	2	20	5 _{-0.03}	5	2 ⁰ -0.2	M5	12		



Model	Dimensions [mm]								
Model	QA	QK	W	Т	U	QE	LT		
R88M- 1M20030S-B(S2/OS2)	2	20	4 _{-0.03}	4	1.5 ⁰ -0.2	M4	10		
R88M- 1M20030T-B(S2/OS2)	2	20	4 _{-0.03}	4	1.5 ⁰ -0.2	M4	10		
R88M- 1M40030S-B(S2/OS2)	2	20	5 _{-0.03}	5	2 _{-0.2}	M5	12		
R88M- 1M40030T-B(S2/OS2)	2	20	5 _{-0.03}	5	2 ⁰ _{-0.2}	M5	12		

750 W (without Brake) R88M-1M75030T(-O/-S2/-OS2)



Madal	Dimensions [mm]
Woder	LL
R88M-1M75030T(-S2)	117.3±1
R88M-1M75030T-O(S2)	124.3±1

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

750 W (with Brake) R88M-1M75030T-B(O/S2/OS2)

R88M-1M75030T-BO(S2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

160±1

1 kW/1.5 kW/2 kW (without Brake) R88M-1L1K030T(-O/-S2/-OS2)/R88M-1L1K530T(-O/-S2/-OS2)/ R88M-1L2K030T(-O/-S2/-OS2)



model	LL	KB1	KB2	KL2
R88M-1L1K030T(-O/-S2/-OS2)	168±2	85±1	153±2	97±2
R88M-1L1K530T(-O/-S2/-OS2)	168±2	85±1	153±2	97±2
R88M-1L2K030T(-O/-S2/-OS2)	179±2	96±1	164±2	102±2

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



QK Key and tap cross section

Madal			Dimer	sion	s [mm]		
Model	QA	QK	w	Т	U	QE	LT
R88M- 1M75030T(-S2/-OS2)	3	24	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12

Shaft-end with key and tap



Model		Dimensions [mm]									
inoder	QA	QK	W	Т	U	QE	LT				
R88M- 1M75030T-B(S2/OS2)	3	24	6 _{-0.03}	6	2.5 _{-0.2}	M5	12				

Shaft-end with key and tap



Model	Dimensions [mm]								
model	QA	QK	w	Т	U	QE	LT		
R88M- 1L1K030T(-S2/-OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1L1K530T(-S2/-OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1L2K030T(-S2/OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12		

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1 kW/1.5 kW/2 kW (with Brake) R88M-1L1K030T-B(O/S2/OS2)/R88M-1L1K530T-B(O/S2/OS2)/ R88M-1L2K030T-B(O/S2/OS2)



Model	Dimensions [mm]						
Woder	LL	KB1	KB2	KL2			
R88M-1L1K030T-B(O/S2/OS2)	209±3	85±1	194±2	97±2			
R88M-1L1K530T-B(O/S2/OS2)	209±3	85±1	194±2	97±2			
R88M-1L2K030T-B(O/S2/OS)	220±3	96±1	205±2	104±2			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (without Brake) R88M-1L3K030T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (with Brake) R88M-1L3K030T-B(O/S2/OS2)





Shaft-end with key and tap



Madal	Dimensions [mm]									
Model	QA	QK	W	Т	U	QE	LT			
R88M- 1L1K030T-B(S2/OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12			
R88M- 1L1K530T-B(S2/OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12			
R88M- 1L2K030T-B(S2/OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12			

Shaft-end with key and tap





4 kW, 4.7 kW (without Brake) R88M-1L4K030T(-O/-S2/-OS2) R88M-1L4K730T(-O/-S2/-OS2)



Model		Dimensio	ons [mm]	Model																									
	Woder	LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L1		LL L		model	
	R88M-1L4K030T(-O/-S2/-OS2)	208±3	128	R88M-1L4K030T(-S2/-OS	2)																								
	R88M-1L4K730T(-O/-S2/-OS2)	232±3	152	R88M-1L4K730T(-S2/-OS	2)																								
					_																								

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

4 kW, 4.7 kW (with Brake) R88M-1L4K030T-B(O/S2/OS2) R88M-1L4K730T-B(O/S2/OS2)



Shaft-end with key and tap

QA QK

3

3

52

52



Dimensions [mm]

т

7

7

U

3-0.4

3⁰-0.4

QE LT

M8 20

M8 20

w

8-0.036

8-0.036

Model	Dimensions [mm]			
Woder	LL	L1		
R88M-1L4K030T-B(O/S2/OS2)	251±3	128		
R88M-1L4K730T-B(O/S2/OS2)	275±3	152		

Dimensions [mm] Model QA QK w U QE LT т R88M-1L4K030T-B(S2/OS2) **3**-0.4 з 52 8-0.036 7 M8 20 **8**-0.036 **3**-0.4 R88M-1L4K730T-B(S2/OS2) 3 52 7 M8 20

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

52

3,000-r/min Servomotors (400 V) 750 W/1 kW/1.5 kW/2 kW (without Brake) R88M-1L75030C(-O/-S2/-OS2)/R88M-1L1K030C(-O/-S2/-OS2) R88M-1L1K530C(-O/-S2/-OS2)/R88M-1L2K030C(-O/-S2/-OS2)



Model	Dimensions [mm]					
Woder	LL	KB1	КВ			
R88M-1L75030C(-O/-S2/-OS2)	139±2	56±1	124±2			
R88M-1L1K030C(-O/-S2/-OS2)	168±2	85±1	153±2			
R88M-1L1K530C(-O/-S2/-OS2)	168±2	85±1	153±2			
R88M-1L2K030C(-O/-S2/-OS2)	179±2	96±1	164±2			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

Models with an oil seal are indicated with "O" at the end of the model number.

750 W/1 kW/1.5 kW/2 kW (with Brake) R88M-1L75030C-B(O/S2/OS2)/R88M-1L1K030C-B(O/S2/OS2) R88M-1L1K530C-B(O/S2/OS2)/R88M-1L2K030C-B(O/S2/OS2)



Madal	Dimensions [mm]					
Model	LL	KB1	КВ			
R88M-1L75030C-B(O/S2/OS2)	180±2	56±1	165±2			
R88M-1L1K030C-B(O/S2/OS2)	209±3	85±1	194±2			
R88M-1L1K530C-B(O/S2/OS2)	209±3	85±1	194±2			
R88M-1L2K030C-B(O/S2/OS2)	220±3	96±1	205±2			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model	Dimensions [mm]						
Model	QA	QK	w	Т	U	QE	LT
R88M- 1L75030C(-S2/-OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12
R88M- 1L1K030C(-S2/-OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ -0.2	M5	12
R88M- 1L1K530C(-S2/-OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12
R88M- 1L2K030C(-S2/-OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12



Model	Dimensions [mm]								
Model	QA	QK	W	Т	U	QE	LT		
R88M- 1L75030C-B(S2/OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1L1K030C-B(S2/OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1L1K530C-B(S2/OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1L2K030C-B(S2/OS2)	3	42	6 _{-0.03}	6	2.5 ⁰ _{-0.2}	M5	12		

3 kW (without Brake) R88M-1L3K030C(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (with Brake) R88M-1L3K030C-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap





4 kW, 5 kW (without Brake) R88M-1L4K030C(-O/-S2/-OS2) R88M-1L5K030C(-O/-S2/-OS2)



Shaft-end with key and tap $\frac{W}{1+1} \rightarrow H$

QE (tap) LT (tap depth)

Model



Dimensions [mm]

т

U

QE

LT

w

Madal	Dimensions [mm]						
Woder	LL	L1					
R88M-1L4K030C(-O/-S2/-OS2)	208±3	128					
R88M-1L5K030C(-O/-S2/-OS2)	232±3	152					

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

4 kW, 5 kW (with Brake) R88M-1L4K030C-B(O/S2/OS2) R88M-1L5K030C-B(O/S2/OS2)



R88M-1L4K030C(-S2/-OS2)	3	52	8-0.036	7	3 -0.4	M8	20
R88M-1L5K030C(-S2/-OS2)	3	52	8 ⁰ -0.036	7	3 -0.4	M8	20

QA QK



Model	Dimensions [mm]			
Woder	LL	L1		
R88M-1L4K030C-B(O/S2/OS2)	251±3	128		
R88M-1L5K030C-B(O/S2/OS2)	275±3	152		

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Madal		Dimensions [mm]								
woder	QA	QK	w	Т	U	QE	LT			
R88M-1L4K030C-B(S2/OS2)	3	52	8 -0.036	7	3 -0.4	M8	20			
R88M-1L5K030C-B(S2/OS2)	3	52	8 -0.036	7	3 -0.4	M8	20			

2,000-r/min Servomotors (200 V)

1 kW/1.5 kW/2 kW (without Brake)

R88M-1M1K020T(-O/-S2/-OS2) R88M-1M1K520T(-O/-S2/-OS2) R88M-1M2K020T(-O/-S2/-OS2)



Model	Dimensions [mm]							
Model	LL	KB1	KB2	KL2				
R88M- 1M1K020T(-O/-S2/-OS2)	120.5±2	63±1	109±2	118±2				
R88M- 1M1K520T(-O/-S2/-OS2)	138±2	79±1	125±2	118±2				
R88M- 1M2K020T(-O/-S2/-OS2)	160±2	99±1	147±2	116±2				

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

1 kW/1.5 kW/2 kW (with Brake) R88M-1M1K020T-B (O/S2/OS2) R88M-1M1K520T-B(O/S2/OS2) R88M-1M2K020T-B(O/S2/OS2)



Model	Dimensions [mm]						
Model	LL	KB1	KB2	KL2			
R88M- 1M1K020T-B(O/S2/OS2)	162±2	63±1	149±2	118±2			
R88M- 1M1K520T-B(O/S2/OS2)	179±2	79±1	166±2	118±2			
R88M- 1M2K020T-B(O/S2/OS2)	201±3	99±1	189±2	119±2			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.



Model	Dimensions [mm]						
Model	QA	QK	w	Т	U	QE	LT
R88M- 1M1K020T(-S2/-OS2)	3	42	8 ⁰ -0.036	7	3 ⁰ _{-0.4}	M5	12
R88M- 1M1K520T(-S2/-OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12
R88M- 1M2K020T(-S2/-OS2)	3	42	8 ⁰ -0.036	7	3 ⁰ -0.4	M5	12





Model	Dimensions [mm]							
Model	QA	QK	w	Т	U	QE	LT	
R88M- 1M1K020T-B(S2/OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12	
R88M- 1M1K520T-B(S2/OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12	
R88M- 1M2K020T-B(S2/OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12	

3 kW (without Brake) R88M-1M3K020T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (with Brake) R88M-1M3K020T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.



2,000-r/min Servomotors (400 V) 400 W/600 W (without Brake)

R88M-1M40020C(-O/-S2/-OS2)/R88M-1M60020C(-O/-S2/-OS2)



Model	Dimensions [mm]					
Woder	LL	KB1	KB2			
R88M-1M40020C(-O/-S2/-OS2)	134.8±1	52±1	120.5±2			
R88M-1M60020C(-O/-S2/-OS2)	151.8±1	69±1	137.5±2			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

400 W/600 W (with Brake) R88M-1M40020C-B(O/S2/OS2)/R88M-1M60020C-B(O/S2/OS2)



Model	Dimensions [mm]					
Woder	LL	KB1	KB2			
R88M-1M40020C-B(O/S2/OS2)	152.3±1	52±1	138±2			
R88M-1M60020C-B(O/S2/OS2)	169.3±1	69±1	155±2			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model		Dimensions [mm]							
Model	QA	QK	W	Т	U	QE	LT		
R88M- 1M40020C(-S2/-OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1M60020C(-S2/-OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12		





Model	Dimensions [mm]								
	QA	QK	W	Т	U	QE	LT		
R88M- 1M40020C-B(S2/OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ _{-0.2}	M5	12		
R88M- 1M60020C-B(S2/OS2)	3	42	6 ⁰ -0.03	6	2.5 ⁰ -0.2	M5	12		

1 kW/1.5 kW/2 kW (without Brake) R88M-1M1K020C(-O/-S2/-OS2) R88M-1M1K520C(-O/-S2/-OS2)



Model	Dimensions [mm]						
woder	LL	KB1	KB2				
R88M- 1M1K020C(-O/-S2/-OS2)	120.5±2	63±1	109±2				
R88M- 1M1K520C(-O/-S2/-OS2)	138±2	79±1	125±2				
R88M- 1M2K020C(-O/-S2/-OS2)	160±2	98±1	148±2				

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

Models with an oil seal are indicated with "O" at the end of the model number.

1 kW/1.5 kW/2 kW (with Brake)

R88M-1M1K020C-B(O/S2/OS2) R88M-1M1K520C-B(O/S2/OS2) R88M-1M2K020C-B(O/S2/OS2)



Model	Dimensions [mm]						
Model	LL	KB1	KB2				
R88M- 1M1K020C-B(O/S2/OS2)	162±2	64±1	150±2				
R88M- 1M1K520C-B(O/S2/OS2)	179±2	81±1	167±2				
R88M- 1M2K020C-B(O/S2/OS2)	201±3	99±1	189±2				

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number.

Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model	Dimensions [mm]							
WOUEI	QA	QK	w	Т	U	QE	LT	
R88M- 1M1K020C(-S2/-OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12	
R88M- 1M1K520C(-S2/-OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12	
R88M- 1M2K020C(-S2/-OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12	



Model		Dimensions [mm]							
WOUCH	QA	QK	w	Т	U	QE	LT		
R88M- 1M1K020C-B(S2/OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12		
R88M- 1M1K520C-B(S2/OS2)	3	42	8 _{-0.036}	7	3 ⁰ -0.4	M5	12		
R88M- 1M2K020C-B(S2/OS2)	3	42	8 ⁰ -0.036	7	3 ⁰ -0.4	M5	12		

3 kW (without Brake) R88M-1M3K020C(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (with Brake)

R88M-1M3K020C-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap





1,500-r/min Servomotors (200 V) 4 kW (without Brake) R88M-1M4K015T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

4 kW (with Brake) R88M-1M4K015T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

5 kW (without Brake) R88M-1M5K015T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

5 kW (with Brake)

R88M-1M5K015T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.



Key and tap cross section

7.5 kW (without Brake) R88M-1M7K515T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

7.5 kW (with Brake)

R88M-1M7K515T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

11 kW/15 kW (without Brake) R88M-1M11K015T(-O/-S2/-OS2) R88M-1M15K015T(-O/-S2/-OS2)



Model	Dimensions [mm]						
Model	L	L1	L2				
R88M- 1M11K015T(-O/-S2/-OS2)	319±3	249	330				
R88M- 1M15K015T(-O/-S2/-OS2)	397±3	327	408				

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

11 kW/15 kW (with Brake) R88M-1M11K015T-B(O/S2/OS2) R88M-1M15K015T-B(O/S2/OS2)



Dimension Imm Model LL L1 R88M-1M11K015T-B(O/S2/OS2) 382±3 249 R88M-1M15K015T-B(O/S2/OS2) 493±3 327

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Model	Dimensions [mm]								
	QA	QK	w	т	U	QE	LT		
R88M- 1M11K015T-B(S2/OS2)	3	93	16 ⁰ -0.043	10	4 ⁰ _{-0.4}	M20	40		
R88M- 1M15K015T-B(S2/OS2)	3	93	16 _{-0.043}	10	4 ⁰ _{-0.4}	M20	40		

Shaft-end with key and tap



Model	Dimensions [mm]								
	QA	QK	w	т	U	QE	LT		
R88M- 1M11K015T(-S2/-OS2)	3	93	16 _{-0.043}	10	4 _{-0.4}	M20	40		
R88M- 1M15K015T(-S2/-OS2)	3	93	16 _{-0.043}	10	4 _{-0.4}	M20	40		



1,500-r/min Servomotors (400 V)

4 kW (without Brake)





Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

4 kW (with Brake)

R88M-1M4K015C-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

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5.5 kW/7.5 kW (without Brake) R88M-1M5K515C(-O/-S2/-OS2)

R88M-1M7K515C(-O/-S2/-OS2)



QE (tap) LT (tap depth) Eye-bolt (2-M6) 6 Ø 4-13.5±0.5 dia. 180×180±2

Shaft-end with key and tap



Model	Dimensions [mm]				
Model	LL	L1			
R88M-1M5K515C(-O/-S2/-OS2)	248±3	174			
R88M-1M7K515C(-O/-S2/-OS2)	295±3	221			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Model	Dimensions [mm]								
	QA	QK	w	Т	U	QE	LT		
R88M-1M5K515C (-S2/-OS2)	3	90	12 _{-0.043}	8	3 _{-0.4}	M16	32		
R88M-1M7K515C (-S2/-OS2)	3	90	12 _{-0.043}	8	3 _{-0.4}	M16	32		

5.5 kW/7.5 kW (with Brake)

R88M-1M5K515C-B(O/S2/OS2) R88M-1M7K515C-B(O/S2/OS2)

LL



180×180±2

Model	Dimensio	ons [mm]	Model	Dimer			
	LL	L1	Model	QA	QK	w	
R88M-1M5K515C-B(O/S2/OS2)	295±3	174	R88M-1M5K515C-B	3	90	12 ⁰	
R88M-1M7K515C-B(O/S2/OS2)	352±3	221	(\$2/0\$2)	Ũ			
		L	R88M-1M7K515C-R			0	

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

← 113±1

Model	Dimensions [mm]								
	QA	QK	w	т	U	QE	LT		
R88M-1M5K515C-B (S2/OS2)	3	90	12 ⁰ _{-0.043}	8	3 ⁰ -0.4	M16	32		
R88M-1M7K515C-B (S2/OS2)	3	90	12 ⁰ _{-0.043}	8	3 ⁰ -0.4	M16	32		

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11 kW/15 kW (without Brake) R88M-1M11K015C(-O/-S2/-OS2) R88M-1M15K015C(-O/-S2/-OS2)



Model	Dimensions [mm]						
Model	LL	L1	L2				
R88M- 1M11K015C(-O/-S2/-OS2)	319±3	249	330				
R88M- 1M15K015C(-O/-S2/-OS2)	397±3	327	408				

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

11 kW/15 kW (with Brake) R88M-1M11K015C-B(O/S2/OS2) R88M-1M15K015C-B(O/S2/OS2)



Model	Dimensions [mm]				
woder	LL	L1			
R88M-1M11K015C-B(O/S2/OS2)	382±3	249			
R88M-1M15K015C-B(O/S2/OS2)	493±3	327			

Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Model	Dimensions [mm]								
	QA	QK	w	т	U	QE	LT		
R88M- 1M11K015C(-S2/-OS2)	3	93	16 ⁰ -0.043	10	4 ⁰ _{-0.4}	M20	40		
R88M- 1M15K015C(-S2/-OS2)	3	93	16 ⁰ -0.043	10	4 ⁰ -0.4	M20	40		

Shaft-end with key and tap



Model	Dimensions [mm]								
	QA	QK	w	т	U	QE	LT		
R88M- 1M11K015C-B(S2/OS2)	3	93	16 ⁰ -0.043	10	4 ⁰ _{-0.4}	M20	40		
R88M- 1M15K015C-B(S2/OS2)	3	93	16 _{-0.043}	10	4 ⁰ _{-0.4}	M20	40		

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1,000-r/min Servomotors (200 V) 900 W (without Brake) R88M-1M90010T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

900 W (with Brake) R88M-1M90010T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

2 kW (without Brake) R88M-1M2K010T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Shaft-end with key and tap





2 kW (with Brake) R88M-1M2K010T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (without Brake) R88M-1M3K010T(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (with Brake) R88M-1M3K010T-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap









1,000-r/min Servomotors (400 V) 900 W (without Brake) R88M-1M90010C(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

900 W (with Brake) R88M-1M90010C-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

2 kW (without Brake) R88M-1M2K010C(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap



Shaft-end with key and tap





2 kW (with Brake) R88M-1M2K010C-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (without Brake)

R88M-1M3K010C(-O/-S2/-OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

3 kW (with Brake) R88M-1M3K010C-B(O/S2/OS2)



Note: The standard shaft type is a straight shaft. Models with a key and tap are indicated with "S2" at the end of the model number. Models with an oil seal are indicated with "O" at the end of the model number.

Shaft-end with key and tap





AC Servo System 1S-series

Cable Outlet Direction of Connector

The cable outlet direction of the servomotor for connector type M23 or M40 can be selected. The below shows the selectable range. The change of the cable outlet direction shall be up to five times. For a procedure of the change of the cable outlet direction, refer to the *AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT*[®] *Communications User's Manual* (Cat.No.I586).

Cable Outlet Direction of Connector Type M23



Cable Outlet Direction of Connector Type M40


Cable Wiring Dimension for a Case of Servo Motor Installing

Cable wiring dimensions are shown below the table when you install a Servomotor with connector type M23 or connector type M40. The dimensions from the rotation center of the connector to the cable surrounding are indicated as A.

Servo Motor for Connector Type M23



Model	A (mm)
R88M-1L4K030T(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1L4K030C(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1L4K730T(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1L5K030C(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1M4K015T(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	265
R88M-1M4K015C(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1M5K015T(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1M5K515C(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	
R88M-1M7K515C(-S2/-O/-OS2/-B/-BS2/-BO/-BOS2)	

Servo Motor for Connector Type M40



Decelerator AC Servo System [1S-series]

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Ordering Information

Refer to the Ordering Information.

Specifications

Backlash: 3 Arcminutes Max. • For 3,000-r/min Servomotors

Servomotor rated output	Reduction ratio	Model	Rated rotation speed	Rated torque	Efficiency	Momentary maximum rotation speed	Momentary maximum torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N∙m	%	r/min	N∙m	× 10 ⁻⁴ kg⋅m²	N	N	kg
	1/21	R88G-HPG14A21100B	142	2.1	62.6	285	8.4	0.05	340	1358	1.0
50 W (100 V)	1/33	R88G-HPG14A33050B	90	3.6	68.4	181	13.4	0.044	389	1555	1.0
(,	1/45	R88G-HPG14A45050B	66	4.9	68.4	133	18.3	0.044	427	1707	1.0
	1/21	R88G-HPG14A21100B	142	2.1	62.6	285	9.9	0.05	340	1358	1.0
50 W (200 V)	1/33	R88G-HPG14A33050B	90	3.6	68.4	181	15.9	0.044	389	1555	1.0
(,	1/45	R88G-HPG14A45050B	66	4.9	68.4	133	21.7	0.044	427	1707	1.0
	1/5	R88G-HPG11B05100B	600	1.2	77.0	1200	4.2	0.005	135	538	0.3
	1/11	R88G-HPG14A11100B	272	2.5	72.1	545	9.0	0.06	280	1119	1.0
100 W (100 V)	1/21	R88G-HPG14A21100B	142	5.2	77.8	285	17.5	0.05	340	1358	1.0
(,	1/33	R88G-HPG20A33100B	90	6.8	65.2	181	26.9	0.065	916	3226	2.4
	1/45	R88G-HPG20A45100B	66	9.8	68.2	133	37.1	0.063	1006	3541	2.4
	1/5	R88G-HPG11B05100B	600	1.2	77.0	1200	4.9	0.005	135	538	0.3
	1/11	R88G-HPG14A11100B	272	2.5	72.1	545	10.6	0.06	280	1119	1.0
100 W (200 V)	1/21	R88G-HPG14A21100B	142	5.2	77.8	285	20.7	0.05	340	1358	1.0
()	1/33	R88G-HPG20A33100B	90	6.8	65.2	181	31.9	0.065	916	3226	2.4
	1/45	R88G-HPG20A45100B	66	9.8	68.2	133	44.0	0.063	1006	3541	2.4
	1/5	R88G-HPG14A05200B	600	2.4	75.4	1200	8.3	0.207	221	883	1.0
	1/11	R88G-HPG14A11200B	272	5.8	82.6	545	18.8	0.197	280	1119	1.1
200 W (100 V)	1/21	R88G-HPG20A21200B	142	10.2	76.2	285	35.9	0.49	800	2817	2.9
(1/33	R88G-HPG20A33200B	90	17.0	80.6	181	57.3	0.45	916	3226	2.9
	1/45	R88G-HPG20A45200B	66	23.5	82.1	133	78.5	0.45	1006	3541	2.9
	1/5	R88G-HPG14A05200B	600	2.4	75.4	1200	9.7	0.207	221	883	1.0
	1/11	R88G-HPG14A11200B	272	5.8	82.6	545	21.8	0.197	280	1119	1.1
200 W (200 V)	1/21	R88G-HPG20A21200B	142	10.2	76.2	285	41.7	0.49	800	2817	2.9
(,	1/33	R88G-HPG20A33200B	90	17.0	80.6	181	66.5	0.45	916	3226	2.9
	1/45	R88G-HPG20A45200B	66	23.5	82.1	133	91.1	0.45	1006	3541	2.9
	1/5	R88G-HPG14A05400B	600	5.3	84.2	1200	17.1	0.207	221	883	1.1
	1/11	R88G-HPG20A11400B	272	11.4	81.6	545	38.1	0.57	659	2320	2.9
400 W (100 V)	1/21	R88G-HPG20A21400B	142	23.0	86.1	285	74.0	0.49	800	2817	2.9
(1/33	R88G-HPG32A33400B	90	33.8	80.7	181	114.0	0.62	1565	6240	7.5
	1/45	R88G-HPG32A45400B	66	46.6	81.5	133	155.9	0.61	1718	6848	7.5

Servomotor rated output	Reduction ratio	Model	Rated rotation speed	Rated torque	Efficiency	Momentary maximum rotation speed	Momentary maximum torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N∙m	%	r/min	N∙m	× 10 ⁻⁴ kg·m²	N	N	kg
	1/5	R88G-HPG14A05400B	600	5.3	84.2	1200	20.4	0.207	221	883	1.1
400 W	1/11	R88G-HPG20A11400B	272	11.4	81.6	545	45.5	0.57	659	2320	2.9
(200 V)	1/21	R88G-HPG20A21400B	142	23.0	86.1	285	88.1	0.49	800	2817	2.9
	1/33	R88G-HPG32A33400B	90	33.8	80.7	181	136.2	0.62	1565	6240	7.5
	1/45	R88G-HPG32A45400B	66	46.6	81.5	133	186.1	0.61	1718	6848	7.5
	1/5	R88G-HPG20A05750BD	600	9.9	82.9	1200	38.7	0.68	520	1832	2.9
	1/11	R88G-HPG20A11750BD	272	20.0 *1	87.2	545	86.7	0.6	659	2320	3.1
(200 V)	1/21	R88G-HPG32A21750B	142	42.1	84.0	285	163.3	3.0	1367	5448	7.8
. ,	1/33	R88G-HPG32A33750B□	90	69.3	87.9	181	259.7	2.7	1565	6240	7.8
	1/45	R88G-HPG32A45750B□	66	94.9	88.3	133	299.0 *2	2.7	1718	6848	7.8
	1/5	R88G-HPG32A052K0B	600	7.7	64.3	1000	30.6	3.8	889	3542	7.4
	1/11	R88G-HPG32A112K0B	272	20.5	78.0	454	70.9	3.4	1126	4488	7.9
750 W (400 V)	1/21	R88G-HPG32A211K5B	142	42.1	84.0	238	138.3	3.0	1367	5448	7.9
(100 1)	1/33	R88G-HPG32A33600SB	90	69.3	87.9	151	220.4	2.7	1565	6240	7.9
	1/45	R88G-HPG50A451K5B	66	92.0	85.5	111	298.0	4.7	4538	15694	19.0
	1/5	R88G-HPG32A052K0B	600	11.5	72.2	1000	42.0	3.8	889	3542	7.4
	1/11	R88G-HPG32A112K0B	272	28.9	82.5	454	96.1	3.4	1126	4488	7.9
1 kW	1/21	R88G-HPG32A211K5B	142	58.1	86.9	238	186.5	3.0	1367	5448	7.9
	1/33	R88G-HPG50A332K0B	90	90.9	86.7	151	292.7	4.8	4135	14300	19.0
	1/45	R88G-HPG50A451K5B	66	126.1	88.1	111	401.3	4.7	4538	15694	19.0
	1/5	R88G-HPG32A052K0B	600	19.1	80.1	1000	64.8	3.8	889	3542	7.4
	1/11	R88G-HPG32A112K0B	272	45.7	87.0	454	146.3	3.4	1126	4488	7.9
1.5 kW	1/21	R88G-HPG32A211K5B	142	90.1	90.0	238	282.2	3.0	1367	5448	7.9
	1/33	R88G-HPG50A332K0B	90	141.3	89.8	151	443.2	4.8	4135	14300	19.0
	1/45	R88G-HPG50A451K5B	66	194.8	90.8	111	606.5	4.7	4538	15694	19.0
	1/5	R88G-HPG32A052K0B	600	26.8	84.1	1000	87.9	3.8	889	3542	7.4
0.1-14	1/11	R88G-HPG32A112K0B	272	62.5	89.3	454	197.0	3.4	1126	4488	7.9
2 KW	1/21	R88G-HPG50A212K0B	142	119.0	89.0	238	375.7	5.8	3611	12486	19.0
	1/33	R88G-HPG50A332K0B	90	192.0	91.3	151	595.3	4.8	4135	14300	19.0
	1/5	R88G-HPG32A053K0B	600	42.0	88.1	1000	134.0	3.8	889	3542	7.3
3 kW	1/11	R88G-HPG50A113K0B	272	93.9	89.3	454	296.1	7.7	2974	10285	19.0
	1/21	R88G-HPG50A213K0B	142	183.1	91.3	238	569.2	5.8	3611	12486	19.0
	1/5	R88G-HPG32A054K0B	600	57.2	90.0	1000	179.6	3.8	889	3542	7.9
4 KW	1/11	R88G-HPG50A115K0B	272	127.1	91.0	454	396.4	8.8	2974	10285	19.1
47.144	1/5	R88G-HPG50A055K0B	600	65.6	87.4	1000	222.5	12.0	2347	8118	18.6
4.7 KW	1/11	R88G-HPG50A115K0B	272	151.4	91.8	454	496.7	8.8	2974	10285	19.1
	1/5	R88G-HPG50A055K0BD	600	69.9	87.9	1000	222.5	12.0	2347	8118	18.6
5 KW	1/11	R88G-HPG50A115K0B	272	160.9	92.0	454	496.7	8.8	2974	10285	19.1

*1. The value is the allowable continuous output torque of the Decelerator. Take care so that this value is not exceeded.

*2. The value is the maximum allowable torque of the Decelerator. Take care so that this value is not exceeded.

Note: 1. The Decelerator inertia is the Servomotor shaft conversion value.

- The protective structure rating of the Servomotor with the Decelerator is IP44.
 The Allowable radial load column shows the values obtained at the center of the shaft (T/2).



4. The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at \Box of the model number. **5.** Take care so that the surface temperature of the Decelerator does not exceed 70°C.

• For 2,000-r/min Servomotors

Servomotor rated output	Reduction ratio	Model	Rated rotation speed	Rated torque	Efficiency	Momentary maximum rotation speed	Momentary maximum torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N∙m	%	r/min	N∙m	× 10 ⁻⁴ kg·m²	N	Ν	kg
	1/5	R88G-HPG32A052K0B	400	6.5	68.4	600	24.9	3.8	889	3542	7.4
	1/11	R88G-HPG32A112K0B	181	16.8	79.9	272	57.1	3.4	1126	4488	7.9
400 W	1/21	R88G-HPG32A211K5B	95	34.0	84.9	142	111.1	3.0	1367	5448	7.9
	1/33	R88G-HPG32A33600SB□	60	55.6	88.2	90	176.6	2.7	1565	6240	7.9
	1/45	R88G-HPG32A45400SBD	44	76.0	88.5	66	241.1	2.7	1718	6848	7.9
	1/5	R88G-HPG32A052K0B	400	11.1	77.6	600	38.6	3.8	889	3542	7.4
	1/11	R88G-HPG32A112K0B	181	26.8	85.3	272	87.3	3.4	1126	4488	7.9
600 W	1/21	R88G-HPG32A211K5BD	95	53.2	88.6	142	168.7	3.0	1367	5448	7.9
	1/33	R88G-HPG32A33600SBD	60	85.7	90.8	90	267.2	2.7	1565	6240	7.9
	1/45	R88G-HPG50A451K5BD	44	115.1	89.4	66	362.6	4.7	4538	15694	19.0
	1/5	R88G-HPG32A053K0B	400	20.3	85.0	600	66.0	3.8	889	3542	7.3
	1/11	R88G-HPG32A112K0SBD	181	47.0	89.6	272	147.6	3.4	1126	4488	7.8
1 kW	1/21	R88G-HPG32A211K0SB□	95	91.7	91.5	142	283.8	2.9	1367	5448	7.8
	1/33	R88G-HPG50A332K0SB□	60	143.9	91.4	90	445.8	4.7	4135	14300	19.0
	1/45	R88G-HPG50A451K0SBD	44	197.6	92.1	66	609.3	4.7	4538	15694	19.0
	1/5	R88G-HPG32A053K0B	400	31.7	88.7	600	100.6	3.8	889	3542	7.3
15 kW	1/11	R88G-HPG32A112K0SBD	181	72.2	91.7	272	223.7	3.4	1126	4488	7.8
1.5 KW	1/21	R88G-HPG50A213K0B	95	137.6	91.5	142	426.7	5.8	3611	12486	19.0
	1/33	R88G-HPG50A332K0SB□	60	219.6	92.9	90	673.9	4.7	4135	14300	19.0
	1/5	R88G-HPG32A053K0B	400	43.2	90.5	600	135.1	3.8	889	3542	7.3
2 KW	1/11	R88G-HPG32A112K0SBD	181	97.5	92.8	272	299.7	3.4	1126	4488	7.8
2 KW	1/21	R88G-HPG50A213K0B	95	185.8	92.7	142	571.9	5.8	3611	12486	19.0
	1/33	R88G-HPG50A332K0SBD	60	270.0 * 1	93.5	90	849.0 * 2	4.7	4135	14300	19.0
	1/5	R88G-HPG32A054K0B	400	66.0	92.3	600	203.8	3.8	889	3542	7.9
3 kW	1/11	R88G-HPG50A115K0B	181	146.1	92.9	272	449.2	8.8	2974	10285	19.1
3 KVV	1/21	R88G-HPG50A213K0SBD	95	260.0 *1	93.6	142	849.0 * 2	6.9	3611	12486	19.1
	1/25	R88G-HPG65A253K0SBD	80	322.9	90.3	120	1011.7	14	7846	28654	52.0

*1. The value is the allowable continuous output torque of the Decelerator. Take care so that this value is not exceeded.

***2.** The value is the maximum allowable torque of the Decelerator. Take care so that this value is not exceeded.

Note: 1. The Decelerator inertia is the Servomotor shaft conversion value.

2. The protective structure rating of the Servomotor with the Decelerator is IP44.

3. The Allowable radial load column shows the values obtained at the center of the shaft (T/2).



4. The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at \Box of the model number.

5. Take care so that the surface temperature of the Decelerator does not exceed 70°C.

Servomotor rated output	Reduction ratio	Model	Rated rotation speed	Rated torque	Efficiency	Momentary maximum rotation speed	Momentary maximum torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N∙m	%	r/min	N∙m	× 10 ⁻⁴ kg·m²	Ν	N	kg
	1/5	R88G-HPG50A055K0SB□	300	119.0	93.4	600	356.6	11	2347	8118	22.0
4 611	1/11	R88G-HPG50A115K0SB	136	217.9 *	94.3	272	788.2	8.4	2974	10285	23.5
4 KVV	1/20	R88G-HPG65A205K0SB□	75	474.9	93.1	150	1425.3	14	7338	26799	55.4
	1/25	R88G-HPG65A255K0SB□	60	596.0	93.5	120	1784.0	14	7846	28654	55.4
	1/5	R88G-HPG50A054K5TB	300	149.3	93.9	600	452.6	12	2347	8118	22.0
5 kW	1/12	R88G-HPG65A127K5SB	125	354.1	92.8	250	1082.2	66	6295	22991	52.0
	1/20	R88G-HPG65A204K5TB	75	595.9	93.7	150	1809.3	53	7338	26799	52.0
	1/5	R88G-HPG50A054K5TB	300	164.6	94.1	600	452.6	12	2347	8118	22.0
5.5 kW	1/12	R88G-HPG65A127K5SBD	125	391.0	93.1	250	1082.2	66	6295	22991	52.0
	1/20	R88G-HPG65A204K5TB	75	657.3	93.9	150	1809.3	53	7338	26799	52.0

• For 1,500-r/min Servomotors

* The value is the allowable continuous output torque of the Decelerator. Take care so that this value is not exceeded.

Note: 1. The Decelerator inertia is the Servomotor shaft conversion value.

2. The protective structure rating of the Servomotor with the Decelerator is IP44.

3. The Allowable radial load column shows the values obtained at the center of the shaft (T/2).



4. The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at \Box of the model number.

5. Take care so that the surface temperature of the Decelerator does not exceed 70°C.

Servomotor rated output	Reduction ratio	Model	Rated rotation speed	Rated torque	Efficiency	Momentary maximum rotation speed	Momentary maximum torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N∙m	%	r/min	N∙m	× 10 ⁻⁴ kg⋅m²	Ν	Ν	kg
	1/5	R88G-HPG32A05900TB	200	39.8	92.6	400	91.2	3.8	889	3542	7.9
000 W	1/11	R88G-HPG32A11900TB	90	88.7	93.9	181	201.8	3.4	1126	4488	8.4
900 W	1/21	R88G-HPG50A21900TB	47	169.2	93.8	95	385.1	7.0	3611	12486	19.1
	1/33	R88G-HPG50A33900TB	30	267.5	94.4	60	606.8	5.9	4135	14300	19.1
	1/5	R88G-HPG32A052K0TB	200	90.2	94.5	400	227.5	5.2	889	3542	8.90
2 kW	1/11	R88G-HPG50A112K0TB	90	198.9	94.7	181	500.9	8.4	2974	10285	20.1
2 KVV	1/21	R88G-HPG50A212K0TB	47	320.1 *1	94.8	95	849.0 * 2	6.5	3611	12486	20.1
	1/25	R88G-HPG65A255K0SB□	40	446.7	93.6	80	1133.1	14	7846	28654	55.4
	1/5	R88G-HPG50A055K0SBD	200	135.4	94.4	400	341.8	11	2347	8118	22.0
2 kW	1/11	R88G-HPG50A115K0SB	90	246.2 *1	94.9	181	754.4	8.4	2974	10285	23.5
JKW	1/20	R88G-HPG65A205K0SB□	50	540.4	94.2	100	1366.0	14	7338	26799	55.4
	1/25	R88G-HPG65A255K0SBD	40	677.1	94.4	80	1709.1	14	7846	28654	55.4

• For 1,000-r/min Servomotors

*1. The value is the allowable continuous output torque of the Decelerator. Take care so that this value is not exceeded.

*2. The value is the maximum allowable torque of the Decelerator. Take care so that this value is not exceeded.

Note: 1. The Decelerator inertia is the Servomotor shaft conversion value.

2. The protective structure rating of the Servomotor with the Decelerator is IP44.

3. The Allowable radial load column shows the values obtained at the center of the shaft (T/2).



4. The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at
of the model number.

5. Take care so that the surface temperature of the Decelerator does not exceed 70°C.

Backlash: 15 Arcminutes Max.

• For 3,000-r/min Servomotors

Servomotor rated output	Reduc- tion ratio	Model	Rated rotation speed	Rated torque	Efficiency	Momentary maximum rotation speed	Momentary maximum torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N∙m	%	r/min	N∙m	× 10 ⁻⁴ kg·m²	Ν	Ν	kg
	1/5	R88G-VRXF05B100CJ	600	0.65	82	1200	1.97	0.060	392	196	0.55
50 W	1/9	R88G-VRXF09B100CJ	333	1.17	82	667	3.54	0.050	441	220	0.55
(100 V)	1/15	R88G-VRXF15B100CJ	200	1.84	77	400	5.54	0.053	588	294	0.70
	1/25	R88G-VRXF25B100CJ	120	3.06	77	240	9.24	0.051	686	343	0.70
	1/5	R88G-VRXF05B100CJ	600	0.65	82	1200	2.30	0.060	392	196	0.55
50 W	1/9	R88G-VRXF09B100CJ	333	1.17	82	667	4.13	0.050	441	220	0.55
(200 V)	1/15	R88G-VRXF15B100CJ	200	1.84	77	400	6.47	0.053	588	294	0.70
	1/25	R88G-VRXF25B100CJ	120	3.06	77	240	10.78	0.051	686	343	0.70
	1/5	R88G-VRXF05B100CJ	600	1.43	90	1200	4.28	0.060	392	196	0.55
100 W	1/9	R88G-VRXF09B100CJ	333	2.58	90	667	7.70	0.050	441	220	0.55
(100 V)	1/15	R88G-VRXF15B100CJ	200	4.10	86	400	12.26	0.053	588	294	0.70
	1/25	R88G-VRXF25B100CJ	120	6.84	86	240	20.43	0.051	686	343	0.70
	1/5	R88G-VRXF05B100CJ	600	1.43	90	1200	5.00	0.060	392	196	0.55
100 W	1/9	R88G-VRXF09B100CJ	333	2.58	90	667	8.23 *	0.050	441	220	0.55
(200 V)	1/15	R88G-VRXF15B100CJ	200	4.10	86	400	14.10 *	0.053	588	294	0.70
	1/25	R88G-VRXF25B100CJ	120	6.84	86	240	21.90 *	0.051	686	343	0.70
	1/5	R88G-VRXF05B200CJ	600	2.93	92	1200	8.79	0.147	392	196	0.72
200 W	1/9	R88G-VRXF09C200CJ	333	4.76	83	667	14.27	0.273	931	465	1.70
(100 V)	1/15	R88G-VRXF15C200CJ	200	8.22	86	400	24.64	0.302	1176	588	2.10
	1/25	R88G-VRXF25C200CJ	120	13.70	86	240	41.07	0.293	1323	661	2.10
	1/5	R88G-VRXF05B200CJ	600	2.93	92	1200	9.94 *	0.147	392	196	0.72
200 W	1/9	R88G-VRXF09C200CJ	333	4.76	83	667	16.43	0.273	931	465	1.70
(200 V)	1/15	R88G-VRXF15C200CJ	200	8.22	86	400	28.38	0.302	1176	588	2.10
	1/25	R88G-VRXF25C200CJ	120	13.70	86	240	47.30	0.293	1323	661	2.10
	1/5	R88G-VRXF05C400CJ	600	5.59	88	1200	16.72	0.370	784	392	1.70
400 W	1/9	R88G-VRXF09C400CJ	333	10.06	88	667	30.10	0.273	931	465	1.70
(100 V)	1/15	R88G-VRXF15C400CJ	200	16.95	89	400	50.73	0.302	1176	588	2.10
	1/25	R88G-VRXF25C400CJ	120	28.26	89	240	84.55	0.293	1323	661	2.10
	1/5	R88G-VRXF05C400CJ	600	5.59	88	1200	19.80	0.370	784	392	1.70
400 W	1/9	R88G-VRXF09C400CJ	333	10.06	88	667	34.00 *	0.273	931	465	1.70
(200 V)	1/15	R88G-VRXF15C400CJ	200	16.95	89	400	56.70 *	0.302	1176	588	2.10
	1/25	R88G-VRXF25C400CJ	120	28.26	89	240	92.40 *	0.293	1323	661	2.10
	1/5	R88G-VRXF05C750CJ	600	10.99	92	1200	38.64	0.817	784	392	2.10
750 W	1/9	R88G-VRXF09D750CJ	333	19.57	91	667	63.70 *	0.755	1176	588	3.40
(200 V)	1/15	R88G-VRXF15D750CJ	200	31.91	89	400	106.00 *	0.685	1372	686	3.80
	1/25	R88G-VRXF25D750CJ	120	53.18	89	240	177.00 *	0.658	1617	808	3.80

st The value is the maximum allowable torque of the Decelerator. Take care so that this value is not exceeded.

Note: 1. The Decelerator inertia is the Servomotor shaft conversion value.

2. The protective structure rating of the Servomotor combined with the Decelerator is IP44. (Excluding decelerator and servo motor connecting parts.)

3. The Allowable radial load column shows the values obtained at the center of the shaft (T/2).



4. The standard shaft type is a shaft with key and tap. (The key is temporarily assembled to the shaft.)

5. Take care so that the surface temperature of the Decelerator does not exceed 90°C.

(Unit: mm)

External Dimensions

Backlash: 3 Arcminutes Max.

• For 3,000-r/min Servomotors (50 to 200 W)

									Dimen	sions [mm]					
Servomotor rated output	Reduction ratio	Model	Outline drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 *2	Е	F1	F2
	1/21	R88G-HPG14A21100B	1	64.0	58	60	60×60	70	46	56	55.5	40		37	2.5	21
50 W	1/33	R88G-HPG14A33050B	1	64.0	58	60	60×60	70	46	56	55.5	40		37	2.5	21
	1/45	R88G-HPG14A45050B	1	64.0	58	60	60×60	70	46	56	55.5	40		37	2.5	21
	1/5	R88G-HPG11B05100B	1 *1	39.5	42	40	40×40	46	46	40	39.5	29		27	2.2	15
	1/11	R88G-HPG14A11100B	1	64.0	58	60	60×60	70	46	56	55.5	40		37	2.5	21
100 W	1/21	R88G-HPG14A21100B	1	64.0	58	60	60×60	70	46	56	55.5	40		37	2.5	21
	1/33	R88G-HPG20A33100B	2	66.5	80	90	55 dia.	105	46	85	84	59	89	53	7.5	27
	1/45	R88G-HPG20A45100B	2	66.5	80	90	55 dia.	105	46	85	84	59	89	53	7.5	27
	1/5	R88G-HPG14A05200B	1	64.0	58	60	60×60	70	70	56	55.5	40		37	2.5	21
	1/11	R88G-HPG14A11200B	1	64.0	58	60	60×60	70	70	56	55.5	40		37	2.5	21
200 W	1/21	R88G-HPG20A21200B	2	71.0	80	90	89 dia.	105	70	85	84	59		53	7.5	27
	1/33	R88G-HPG20A33200B	2	71.0	80	90	89 dia.	105	70	85	84	59		53	7.5	27
	1/45	R88G-HPG20A45200B	2	71.0	80	90	89 dia.	105	70	85	84	59		53	7.5	27
								Dim	ension	s [mm]						
Servomotor	Reduction	Model						Dim	ension	s [mm]	ŀ	(ey			Ta	p
Servomotor rated output	Reduction ratio	Model	G	s	т	Z1	Z2	Dime	T *3	s [mm] QK	b	Key h	t	1	Taj M	p L
Servomotor rated output	Reduction ratio 1/21	Model R88G-HPG14A21100B□	G 8	S 16	T 28	Z1	Z2 M4 ×	Dime 4 10	ension T *3 M3	s [mm] QK 25	b	Key h 5	t	1 3	Taj M M4	р <u>L</u> 8
Servomotor rated output 50 W	Reduction ratio 1/21 1/33	Model R88G-HPG14A21100B R88G-HPG14A33050B	G 8 8	S 16 16	T 28 28	Z1 5.5 5.5	Z2 M4 × M4 ×	Dim A 10 10	ension • T *3 • M3 • M3	s [mm] QK 25 25	b 5 5	Key h 5 5	t	1 3 3	Taj M M4 M4	p L 8 8
Servomotor rated output 50 W	Reduction ratio 1/21 1/33 1/45	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B	G 8 8 8	S 16 16	T 28 28 28	Z1 5.5 5.5 5.5	Z2 M4 × M4 × M4 × M4 ×	Dim A 10 10 10	ension T *3 M3 M3 M3 M3	s [mm] QK 25 25 25	b 5 5 5	Key h 5 5 5	t	1 3 3 3	Taj M M4 M4 M4 M4	p L 8 8 8 8
Servomotor rated output 50 W	Reduction ratio 1/21 1/33 1/45 1/5	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG11B05100B	G 8 8 8 8 5	S 16 16 16 8	T 28 28 28 28 20	Z1 5.5 5.5 5.5 3.4	Z2 M4 × M4 × M4 × M4 × M4 × M4 ×	Dime 10 10 10 10 10 10 10	M3 M3 M3 M3 M3 M3 M3	s [mm] QK 25 25 25 15	b 5 5 5 3	Key h 5 5 5 3	t : : : 1	1 3 3 3 3 .8	Tal M M4 M4 M4 M4 M4 M4 M4	P L 8 8 8 8 6
Servomotor rated output	Reduction ratio 1/21 1/33 1/45 1/5 1/11	Model R88G-HPG14A21100B□ R88G-HPG14A33050B□ R88G-HPG14A45050B□ R88G-HPG11805100B□ R88G-HPG11805100B□ R88G-HPG14A11100B□	G 8 8 8 5 8 8	S 16 16 16 8 16	T 28 28 28 28 20 28	Z1 5.5 5.5 5.5 3.4 5.5	Z2 M4 ×	Dime 10 10 10 39 10	M3 M3 M3 M3 M3 M3 M3 M3 M3	s [mm] QK 25 25 25 15 25	b 5 5 5 3 3 5	Key h 5 5 5 3 3 5	t ::::::::::::::::::::::::::::::::::::	1 3 3 3 .8 3	Tal M M4	p L 8 8 8 6 8 8
Servomotor rated output 50 W 100 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG11B05100B R88G-HPG14A11100B R88G-HPG14A21100B	G 8 8 8 5 8 8 8 8	S 16 16 16 8 16 16	T 28 28 28 28 20 28 28 28	Z1 5.5 5.5 5.5 3.4 5.5 5.5	Z2 M4 ×	Dim 10 10 10 29 10 10 10	Image: matrix and mat	s [mm] QK 25 25 25 15 25 25 25 25	b 5 5 5 3 3 5 5 5	Key h 5 5 5 3 5 5 5 5 5 5 5	t :: : : : : : : : : : : : : : : : : :	1 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Tal M M4	p L 8 8 8 6 8 8 8 8 8
Servomotor rated output 50 W 100 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21 1/33	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG11B05100B R88G-HPG14A11100B R88G-HPG14A21100B R88G-HPG14A21100B	G 8 8 8 5 8 8 8 8 10	S 16 16 16 8 16 16 16 25	T 28 28 28 28 28 20 28 28 42	Z1 5.5 5.5 5.5 3.4 5.5 5.5 9	Z2 M4 ×	Dim 10 10 10 10 10 10 10 10 10 10	T *3 - M3 - M4 -	s [mm] QK 25 25 25 15 25 25 25 25 36	b 5 5 3 3 5 5 8	Key h 5 5 5 3 3 5 5 5 7	t ;; ;; ;; ;; ;; ;; ;; ;; ;;;;;;;;;;;;	1 3 33 3 33 3 33 3 33 3 34 3	Tal M M4 M4 M4 M3 M4 M4 M4 M3 M4 M4 M4 M6	p L 8 8 8 8 6 8 8 8 8 8 8 12
Servomotor rated output 50 W 100 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG11B05100B R88G-HPG14A11100B R88G-HPG14A21100B R88G-HPG20A33100B R88G-HPG20A45100B	G 8 8 8 5 8 8 8 10 10	S 16 16 16 8 16 16 25 25 25	T 28 28 28 20 28 20 28 24 42	Z1 5.5 5.5 5.5 5.5 5.5 5.5 5.5 9 9 9	Z2 M4 ×	Dime 10 10 10 29 10 10 10 10 10	T *3 M3 M3 M3 M3 M3 M3 M3 M3 M4 M4	s [mm] QK 25 25 25 15 25 25 25 36 36	b 5 5 5 3 5 5 5 8 8 8	Key h 5 5 5 5 5 5 5 5 7 7		1 3 3 3 3 3 3 3 3 3 3 4	Tal M M4 M6	L 8 8 6 8 12 12
Servomotor rated output 50 W 100 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A11100B R88G-HPG14A21100B R88G-HPG20A33100B R88G-HPG20A45100B R88G-HPG14A05200B	G 8 8 8 5 8 8 8 10 10 10 8	S 16 16 16 16 16 16 25 25 25 16	T 28 28 28 20 28 20 28 42 42 28	Z1 5.5 5.5 5.5 5.5 5.5 5.5 9 9 9 5.5	Z2 M4 ×	Dime 10 10 10 10 10 10 10 10 10 10 10	T *3 M3 M3 M3 M3 M3 M3 M4 M4	s [mm] QK 25 25 25 15 25 25 36 36 36 25	b 5 5 5 3 5 5 5 8 8 8 8 5	Key h 5 5 5 5 5 5 5 7 7 5		1 3 3 3 3 3 3 3 3 4 3	Tal M M4 M6 M4	p L 8 8 8 8 6 8 8 12 12 8
Servomotor rated output 50 W 100 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A1100B R88G-HPG14A21100B R88G-HPG14A21100B R88G-HPG20A33100B R88G-HPG20A45100B R88G-HPG14A05200B R88G-HPG14A05200B	G 8 8 8 5 8 8 10 10 10 8 8 8	S 16 16 16 16 16 16 16 25 25 16 16 16	T 28 28 28 20 28 20 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28 28	Z1 5.5 5.5 5.5 5.5 5.5 5.5 9 9 9 5.5 5.5	Z2 M4 ×	Dime 10 10 10 10 29 10 10 10 10 10 10 10 10	T *3 M3 M3 M3 M3 M3 M4 M4 M4	s [mm] QK 25 25 25 15 25 25 25 36 36 25 25 25	b 5 5 5 3 5 5 8 8 8 8 5 5 5	Cey h 5 5 5 3 3 5 5 5 7 7 7 7 5 5 5		1 3 3 3 3 3 3 3 4 3 3 3	Ta M M4 M6 M4 M6 M4	L 8 8 8 6 8 12 12 8 8
Servomotor rated output 50 W 100 W 200 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A1100B R88G-HPG14A11100B R88G-HPG14A21100B R88G-HPG20A33100B R88G-HPG20A45100B R88G-HPG14A05200B R88G-HPG14A11200B R88G-HPG14A11200B	G 8 8 8 5 8 8 10 10 10 8 8 8 10	S 16 16 16 8 16 16 25 25 16 16 16 25	T 28 28 28 20 28 28 28 28 28 28 28 28 42 28 28 42 28 29	Z1 5.5 5.5 5.5 5.5 5.5 5.5 9 9 9 5.5 5.5 5	Z2 M4 × M4 ×	Dime 10 10 10 10 10 10 10 10 10 10 10 10 10	T *3 M3 M3 M3 M3 M3 M3 M4 M4 M4 M4 M4 M4 M4	s [mm] QK 25 25 25 25 25 25 25 36 36 25 25 25 36	b 5 5 3 5 5 8 8 8 5 5 5 8 8 8 8 8 8 5 5	Key h 5 5 5 5 3 3 5 5 5 7 7 7 5 5 5 7 7 7 7 7		1 3 3 3 3 3 3 3 4 3 3 3 4 3 3 4 3 4	Ta M4 M6 M4 M4 M4 M4 M4 M4 M4 M4 M6	L 8 8 6 8 12 12 8 12 12 12 12 12 12 12 12 12 12
Servomotor rated output 50 W 100 W 200 W	Reduction ratio 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33	Model R88G-HPG14A21100B R88G-HPG14A33050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A45050B R88G-HPG14A05100B R88G-HPG14A21100B R88G-HPG14A21100B R88G-HPG20A33100B R88G-HPG20A45100B R88G-HPG14A11200B R88G-HPG14A11200B R88G-HPG20A21200B R88G-HPG20A33200B	G 8 8 8 5 8 8 10 10 10 8 8 8 10 10 10	S 16 16 16 8 16 16 25 25 16 16 16 25 25 25 25 25 25	T 28 28 28 20 28 28 42 42 28 28 28 28 28 42 28 42 28	Z1 5.5 5.5 5.5 5.5 5.5 5.5 9 9 9 5.5 5.5 9 9 9 9	Z2 M4 × M4 ×	Dime 10 10 10 10 10 10 10 10 10 10 10 10 10	T *3 M3 M3 M3 M3 M3 M3 M4	s [mm] QK 25 25 25 15 25 25 36 36 25 25 25 36 36 36 36 36	b 5 5 3 5 5 8 8 8 5 5 8 8 8 8 8 8 8 8 8	Key h 5 5 5 5 5 5 5 5 5 5 5 5 7 5 5 7 7 7 7 7 7 7		1 3 33 3 33 3 33 3 34 4 4 3 33 4 44 4 44 4 44 4	Ta M4 M6 M4 M6 M6 M6 M6 M6	L 8 8 6 8 12 12 8 8 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12

***1.** Two set bolts are positioned at 90° from each other.

*2. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine.
 *3. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at \Box of the model number.

(Example: R88G-HPG11B05100BJ)

- 3. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.
- 4. You cannot use this type of Decelerator for the Servomotor with key.
- 5. The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.



F2 G

LM

LR

• For 3,000-r/min Servomotors (400 to 750 W)

		•		,												
Servomotor	Reduction	Model	Outline						Dimen	sions [mm]					
rated output	ratio	Model	drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 *1	Е	F1	F2
	1/5	R88G-HPG14A05400B	1	64	58	60	60×60	70	70	56	55.5	40		37	2.5	21
	1/11	R88G-HPG20A11400B	2	71	80	90	89 dia.	105	70	85	84	59		53	7.5	27
400 W	1/21	R88G-HPG20A21400B	2	71	80	90	89 dia.	105	70	85	84	59		53	7.5	27
	1/33	R88G-HPG32A33400B	2	104	133	120	122 dia.	135	70	115	114	84		98	12.5	35
	1/45	R88G-HPG32A45400B	2	104	133	120	122 dia.	135	70	115	114	84		98	12.5	35
	1/5	R88G-HPG20A05750B	1	78	80	90	80 × 80	105	90	85	84	59	89	53	7.5	27
	1/11	R88G-HPG20A11750B	1	78	80	90	80 × 80	105	90	85	84	59	89	53	7.5	27
(200 V)	1/21	R88G-HPG32A21750B	2	104	133	120	122 dia.	135	90	115	114	84		98	12.5	35
(200 1)	1/33	R88G-HPG32A33750B	2	104	133	120	122 dia.	135	90	115	114	84		98	12.5	35
	1/45	R88G-HPG32A45750B	2	104	133	120	122 dia.	135	90	115	114	84		98	12.5	35
	1/5	R88G-HPG32A052K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/11	R88G-HPG32A112K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
750 W (400 V)	1/21	R88G-HPG32A211K5B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
(1/33	R88G-HPG32A33600SB	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/45	R88G-HPG50A451K5B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53

							Di	imensior	ns [mm]					
Servomotor rated output	Reduction	Model	6	6	-	71	70	AT \$*2		K	∋y		Та	ар
rated eatput	Tullo		G	3	1	21	22	AT *2	QK	b	h	t1	М	L
	1/5	R88G-HPG14A05400B	8	16	28	5.5	M4 × 10	M4	25	5	5	3	M4	8
	1/11	R88G-HPG20A11400B	10	25	42	9	M4 × 10	M4	36	8	7	4	M6	12
400 W	1/21	R88G-HPG20A21400B	10	25	42	9	M4 × 10	M4	36	8	7	4	M6	12
	1/33	R88G-HPG32A33400B	13	40	82	11	M4 × 10	M4	70	12	8	5	M10	20
	1/45	R88G-HPG32A45400B	13	40	82	11	M4 × 10	M4	70	12	8	5	M10	20
	1/5	R88G-HPG20A05750B	10	25	42	9	M5 × 12	M4	36	8	7	4	M6	12
	1/11	R88G-HPG20A11750B	10	25	42	9	M5 × 12	M4	36	8	7	4	M6	12
750 W (200 V)	1/21	R88G-HPG32A21750B	13	40	82	11	M5 × 12	M6	70	12	8	5	M10	20
(200 1)	1/33	R88G-HPG32A33750B	13	40	82	11	M5 × 12	M6	70	12	8	5	M10	20
	1/45	R88G-HPG32A45750B	13	40	82	11	M5 × 12	M6	70	12	8	5	M10	20
	1/5	R88G-HPG32A052K0B	13	40	82	11	M8 × 10	M6	70	12	8	5	M10	20
	1/11	R88G-HPG32A112K0B	13	40	82	11	M8 × 10	M6	70	12	8	5	M10	20
750 W (400 V)	1/21	R88G-HPG32A211K5B	13	40	82	11	M8 × 10	M6	70	12	8	5	M10	20
(1/33	R88G-HPG32A33600SB	13	40	82	11	M8 × 10	M6	70	12	8	5	M10	20
	1/45	R88G-HPG50A451K5B	16	50	82	14	M8 × 10	M6	70	14	9	5.5	M10	20

*1. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine. *2. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at \Box of the model number.

(Example: R88G-HPG14A05400BJ)

- 3. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.

You cannot use this type of Decelerator for the Servomotor with key.
 The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.



• For 3.000-r/min Servomotors (1 to 5 kW)

Servomotor	Reduction		Outline						Dimen	sions [r	nm]					
rated output	ratio	Model	drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 *1	Е	F1	F2
	1/5	R88G-HPG32A052K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/11	R88G-HPG32A112K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
1 kW	1/21	R88G-HPG32A211K5B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/33	R88G-HPG50A332K0B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/45	R88G-HPG50A451K5B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/5	R88G-HPG32A052K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/11	R88G-HPG32A112K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
1.5 kW	1/21	R88G-HPG32A211K5B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/33	R88G-HPG50A332K0B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/45	R88G-HPG50A451K5B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/5	R88G-HPG32A052K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
2 kW	1/11	R88G-HPG32A112K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/21	R88G-HPG50A212K0B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/33	R88G-HPG50A332K0B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/5	R88G-HPG32A053K0B	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
3 kW	1/11	R88G-HPG50A113K0B	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
	1/21	R88G-HPG50A213K0B	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
4 kW	1/5	R88G-HPG32A054K0B	1	129	133	120	130 × 130	135	145	115	114	84		98	12.5	35
	1/11	R88G-HPG50A115K0B	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
4.7 kW	1/5	R88G-HPG50A055K0B	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
5 kW	1/11	R88G-HPG50A115K0B	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
Servomotor	Reduction				1		1	Dime	ension	s [mm]						
Servomotor rated output	Reduction ratio	Model	G	S	т	Z1	Z2	Dime	ension: T *2	s [mm]	к	ey			Та	p
Servomotor rated output	Reduction ratio	Model	G	S	T	Z1	Z2	Dime	ension: \T *2	QK	K b	iey h	1	1	Ta M	p L
Servomotor rated output	Reduction ratio	Model R88G-HPG32A052K0B	G 13	S 40	T 82	Z1	Z2	Dime A 10	ension: T *2 M6	QK 70	b 12	iey h 8	1	1 5	Ta M M10	p L 20
Servomotor rated output	Reduction ratio 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B D000 UD0000000000	G 13 13	S 40 40	T 82 82	Z1 11 11	Z2 M8 × M8 ×	Dime A 10 10	ension: \T *2 - M6 M6	QK 70 70	b 12 12	h	1	1 5 5	Ta M M10 M10	P L 20 20 20
Servomotor rated output	Reduction ratio 1/5 1/11 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B D890-UP056A299KP D890-UP056A299KP D890-UP056A299KP D890-UP056A299KP D890-UP056A299KP D890-UP056A299KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP D890-UP056A295KP R880-UP056A295KP R80-UP057KP R80-UP057KP R80-UP057KP R80-UP057KP R80-UP057	G 13 13 13	S 40 40 40	T 82 82 82	Z1 11 11 11	Z2 M8 × M8 × M8 × M8 ×	Dime A 10 10 10	ension: AT *2 M6 M6 M6 M6	QK 70 70 70 70	b 12 12 12	h 8 8 8 8	1	1 5 5 5	Ta M M10 M10 M10 M10	p 20 20 20
Servomotor rated output	Reduction ratio 1/5 1/11 1/21 1/33	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B D200 UD050A47KD	G 13 13 13 13 16	S 40 40 40 50	T 82 82 82 82 82	Z1 11 11 11 11 14	Z2 M8 × M8 × M8 × M8 × M8 × M8 ×	Dime A 10 10 10 10	ensions T *2 M6 M6 M6 M6 M6 M6 M6	QK 70 70 70 70 70	b 12 12 12 12 14	h 8 8 8 8 9	5	1 5 5 5 .5	Ta M10 M10 M10 M10 M10	p 20 20 20 20 20
Servomotor rated output	Reduction ratio 1/5 1/11 1/21 1/33 1/45	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B D890-UP028A450K9D	G 13 13 13 13 16 16	S 40 40 40 50 50	T 82 82 82 82 82 82 82	Z1 11 11 11 11 14 14	Z2 M8 ×	Dime A 10 10 10 10 10	M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6	QK 70 70 70 70 70 70 70	b 12 12 12 12 14 14	fey h 8 8 8 9 9 9	55	1 5 5 5 .5 .5	Ta M10 M10 M10 M10 M10 M10	p 20 20 20 20 20 20 20 20
Servomotor rated output	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/5	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B B88G-HPG32A052K0B B88G-HPG32A052K0B	G 13 13 13 13 16 16 16 13	S 40 40 40 50 50 50 40	T 82 82 82 82 82 82 82 82	Z1 111 11 11 14 14 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10	ension: T *2 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6	QK 70 70 70 70 70 70 70 70 70	k 12 12 12 14 14 14	(ey h 8 8 8 9 9 9 8 8	555	1 5 5 5 .5 .5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M10	p 20 20 20 20 20 20 20 20 20 20
Servomotor rated output	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A112K0B B88G-HPC32A111KB B88G-HPC32A111KB	G 13 13 13 13 16 16 16 13 13 13	S 40 40 40 50 50 40 40	T 82 82 82 82 82 82 82 82 82	Z1 11 11 11 11 14 14 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	ensions IT *2 M6 M6	QK 70 70 70 70 70 70 70 70 70 70	b 12 12 12 14 14 14 12 12	ey h 8 8 9 9 9 8 8 8 8	5	1 5 5 5 5 5 5 5 5 5 5 5	Ta M M10 M10 M10 M10 M10 M10 M10 M10	P 20
Servomotor rated output 1 kW 1.5 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/23	Model R88G-HPG32A052K0B□ R88G-HPG32A112K0B□ R88G-HPG32A211K5B□ R88G-HPG50A332K0B□ R88G-HPG50A451K5B□ R88G-HPG50A451K5B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□	G 13 13 13 13 16 16 13 13 13 13 16	S 40 40 50 50 40 40	T 82 82 82 82 82 82 82 82 82 82	Z1 111 111 114 144 111 111 111 111 111 1	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10	T *2 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6	QK 70 70 70 70 70 70 70 70 70 70 70 70	b 12 12 12 14 14 14 12 12 12 12	ey h 8 8 9 9 9 9 8 8 8 8 8 8		1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	M M10	P 20
Servomotor rated output 1 kW 1.5 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45	Model R88G-HPG32A052K0B□ R88G-HPG32A112K0B□ R88G-HPG32A211K5B□ R88G-HPG50A332K0B□ R88G-HPG50A451K5B□ R88G-HPG50A451K5B□ R88G-HPG32A052K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□	G 13 13 13 13 16 16 13 13 13 13 16 16	S 40 40 50 50 40 40 50 50 40 50 50 50 50 50 50 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82	Z1 11 11 11 11 14 14 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10	IT *2 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6	GK 70 70 70 70 70 70 70 70 70 70 70 70 70	b 12 12 12 14 14 14 12 12 12 12 14	h 8 8 8 9 9 8 8 9	55555	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M10	L 20
Servomotor rated output 1 kW 1.5 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B B88G-HPG50A451K5B	G 13 13 13 13 16 16 13 13 13 13 16 16	S 40 40 50 50 40 50 50 40 50 50 40 40 50 50 40 40 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 11 11 11 14 14 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	IT *2 - M6 M6	S [mm] QK 70	k 12 12 12 14 14 14 12 12 12 12 14 14	h 8 8 8 9 9 8 8 9 9 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	55	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M10	L 20
Servomotor rated output 1 kW 1.5 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A211K5B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG32A052K0B B86G-HPG32A052K0B B86G-HPG32A052K0B	G 13 13 13 13 16 16 13 13 13 13 16 16 13 13	S 40 40 50 50 40 50 50 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 50 50 40	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 14 14 111 111 111 111 111	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	IT *2 - M6 M6	Emm] QK 70	k 12 12 12 12 14 12 14 12 12 14 12 12 12 12 12 12 12 12 14 12 14 12 12	h 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 8 8 9 9 8 8 8 9 9 8	55	1 5	Ta M10	P L 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21	Model R88G-HPG32A052K0B□ R88G-HPG32A112K0B□ R88G-HPG32A211K5B□ R88G-HPG50A332K0B□ R88G-HPG50A451K5B□ R88G-HPG32A052K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□ R88G-HPG32A115K5B□ R88G-HPG50A451K5B□ R88G-HPG50A451K5B□ R88G-HPG50A451K5B□ R88G-HPG50A451K5B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A052K0B□ R88G-HPG32A112K0B□ R88G-HPG32A112K0B□	G 13 13 13 13 13 16 16 13 13 13 14 15 16 13 13 13 14 15 16 13 13 16 17	S 40 40 50 50 40 50 50 40 50 50 40 40 50 50 40 50 50 40 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 14 14 14 111 111 114 14 14	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	IT *2 IT *2 M6 M6	Emm] QK 70	k 12 12 12 12 14 12 14 12 12 14 12 12 12 12 12 12 14 12 14 12 14 12 14 12 14	h 8 8 9 9 8 8 9 9 8 8 9 8 8 9 8 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9 9 8 8 9		1 5	Ta M10	P L 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/5 1/11 1/21 1/33	Model	G 13 13 13 13 16 16 13 16 13 13 14 15 16 17 18 19 13 16 17 18 19 110 111 112 113 113 116 117	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 114 144 111 111 114 144 144 1	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	IT *2 M6	Emm] QK 70	k 12 12 12 12 14 12 14 12 12 14 12 12 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14	ey h 8 8 9 9 9 9 8 8 8 8 9 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 9 9 8 8 8 9		1 5	Ta M10	P L 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1//5	Model	G 13 13 13 13 16 16 13 16 13 13 14 15 16 13 13 16 16 13 16 16 13 16 16 13 13 16 17	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 40 50 50 40	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 114 144 111 111 114 144 144 1	Z2 M8 ×	Dime A A 10 10 10 10 10 10 10 10 10 10 10 10 10	IT *2 M6	[mm] QK 70	k 12 12 12 12 14 12 14 12 12 14 12 12 12 12 12 12 14 12 14 12 14 12 14 12 14 12	ey h 8 8 9 9 9 8 8 8 8 9 9 9 9 8 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 8 8 8 8 9 9 9 8		1 5	Ta M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A332K0B R88G-HPG50A332K0B R88G-HPG50A332K0B R88G-HPG50A332K0B	G 13 13 13 13 16 16 13 16 13 13 14 15 16 17 18 19 110 111 112 113 113 113 116 113 116 117	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 40 50 50 40 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 114 144 111 111 114 144 111 111 114 144 144 111 114 144 144 111 114 144	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 110 110 110 110	IT *2 M6	Emm] QK 70	k 12 12 12 12 14 12 14 12 14 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14	ey h 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 9 8 8 8 9 9 9 9 9 8 8 8 9 9 9 9 9 8 8 8 9 9 9 9 9 8 8 8 9 9 9 9 9 8 8 8 9 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 9 8 8 8 8 9 9 9 9 8 8 8 8 9 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 8		11 5	Ta M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW 3 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/5 1/11 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A212K0B R88G-HPG50A213X0B	G 13 13 13 13 16 16 13 16 13 13 16 13 13 16 17 18 19 10 11 12 13 16 13 16 16 13 16 16 13	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 114 144 111 111 114 144 144 111 111 144 144 114 114 144	Z2 M8 ×	Dime A 10 11 12 13 14 15	IT *2 M6	[mm] QK 70	k 12 12 12 12 12 14 12 14 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 14 12 14	ey h 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 9 9 9 9		11 5	Ta M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW 3 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A112K0B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A212K0B R88G-HPG50A113K0B R88G-HPG50A113K0B R88G-HPG50A113K0B R88G-HPG50A213K0B	G 13 13 13 13 16 17 18 19 13 13 13 13 13 13 13 13 16 17 18 19 16 13 16 16 13 16 16 13 16 17	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 40 50 50 40 50 50 50 50 50 50 40	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 14 14 14 111 111 111 14 14	Z2 M8 ×	Dime A 10 11 12 13 14 15 16 17	IT *2 M6	[mm] QK 70	k 12 12 12 12 12 14 12 14 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12	ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 8		11 5	Ta M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW 3 kW 4 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A212K0B R88G-HPG50A213K0B R88G-HPG50A213K0B R88G-HPG50A213K0B R88G-HPG50A213K0B R88G-HPG50A213K0B R88G-HPG50A213K0B R88G-HPG50A213K0B	G 13 13 13 13 16 17 18 19 13 13 13 13 13 13 13 16 17 18 19 10 11 12 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 40 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 14 14 14 111 111 111 14 14	Z2 M8 ×	Dime A 10 11 12 13 14 15 16 17 18 19 10 110 110 110 110 111 111 111 111 111 111 111 111 111 111 111 111 111 111 <th>IT *2 M6 M6</th> <th>[mm] QK 70</th> <th>k 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14</th> <th>ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 8</th> <th></th> <th>11 5</th> <th>Ta M10 M10</th> <th>P 20 20 20 20 20 20 20 20 20 20 20 20 20</th>	IT *2 M6	[mm] QK 70	k 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14	ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 8 8 8 8 9 9 9 8		11 5	Ta M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW 3 kW 4 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/5 1/11 1/25	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A212K0B R88G-HPG50A213K0B	G 13 13 13 13 16 17 18 19 13 13 13 13 13 13 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16 13 16	S 40 40 50 50 40 50 50 40 50 50 40 50 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 111 114 144 111 114 114 111 111 111 111 111 114 114 114 114 114 114 114 114 114 114 114 114	Z2 M8 ×	Dime A 10 11 12 13 14 15 16 17 18 19 10 110 110 110 110 111 111 111 111 111 111 111 111 111 111 111 111 111 111 <th>IT *2 M6 M6</th> <th>[mm] QK 70</th> <th>k 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12</th> <th>ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8</th> <th></th> <th>11 5</th> <th>Ta M10 M10</th> <th>P 20 20 20 20 20 20 20 20 20 20 20 20 20</th>	IT *2 M6	[mm] QK 70	k 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12	ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 8		11 5	Ta M10 M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 1 kW 1.5 kW 2 kW 2 kW 3 kW 4 kW 4.7 kW 5 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/5 1/11 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A211K5B R88G-HPG50A332K0B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG50A332K0B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A451K5B R88G-HPG50A212K0B R88G-HPG50A113K0B R88G-HPG50A113K0B R88G-HPG50A115K0B R88G-HPG50A115K0B R88G-HPG50A115K0B	G 13 13 13 13 16 17 18 19 13 13 13 13 13 13 13 16 17 18 19 10 11	S 40 40 50 50 40 50 40 50 40 50 40 50 50 50 40 50 50 40 50 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 14 14 14 111 111 111 14 14	Z2 M8 × M8 ×	Dime A 10 11 12 13 14 15 16 17 18 19 110 110 110 111 111 111 111 111 111 111 111 111 111 111 111 111 111 <th>IT *2 M6 M6</th> <th>[mm] QK 70</th> <th>k 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12</th> <th>ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 9 8 8 9 9 9 9 9 8 8 9</th> <th></th> <th>11 5 <</th> <th>Ta M10 M10</th> <th>P 20 20 20 20 20 20 20 20 20 20 20 20 20</th>	IT *2 M6	[mm] QK 70	k 12 12 12 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12 14 12	ey h 8 8 9 9 9 8 8 8 9 9 9 8 8 8 9 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 8 8 9 9 9 9 9 8 8 9 9 9 9 9 8 8 9		11 5 <	Ta M10 M10	P 20 20 20 20 20 20 20 20 20 20 20 20 20

*1. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine. *2. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at
of the model number. (Example: R88G-HPG32A052K0BJ)

The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.
 You cannot use this type of Decelerator for the Servomotor with key.

5. The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.



• For 2,000-r/min Servomotors (400 W to 1 kW)

Servomotor	Reduction		Outline						Dimen	sions (r	nml					
rated output	ratio	Model	drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 *1	Е	F1	F2
	1/5	R88G-HPG32A052K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/11	R88G-HPG32A112K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
400 W	1/21	R88G-HPG32A211K5B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
(400 V)	1/33	R88G-HPG32A33600SBD	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/45	R88G-HPG32A45400SBD	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/5	R88G-HPG32A052K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
000.14	1/11	R88G-HPG32A112K0B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
(400 V)	1/21	R88G-HPG32A211K5B	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
(100 1)	1/33	R88G-HPG32A33600SB	2	110	133	120	135 dia.	135	115	115	114	84		98	12.5	35
	1/45	R88G-HPG50A451K5B	2	123	156	170	170 dia.	190	115	165	163	122		103	12	53
	1/5	R88G-HPG32A053K0B	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
	1/11	R88G-HPG32A112K0SB	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
1 kW	1/21	R88G-HPG32A211K0SB	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
	1/33	R88G-HPG50A332K0SB	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
	1/45	R88G-HPG50A451K0SB	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
•	B							Dime	ension	s [mm]						
Servomotor rated output	Reduction	Model	G	e	т	71	72	Dime	ension	s [mm]	к	ey			Та	p
Servomotor rated output	Reduction ratio	Model	G	S	т	Z1	Z2	Dime	ension T *2	s [mm] QK	K b	íey h	t	1	Ta M	p L
Servomotor rated output	Reduction ratio 1/5	Model R88G-HPG32A052K0B□	G 13	S 40	T 82	Z1	Z2 M8 ×	Dime A 10	ension T *2 - M6	s [mm] QK 70	к b 12	ley h 8	t	1 5	Ta M M10	р L 20
Servomotor rated output	Reduction ratio 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B	G 13 13	S 40 40	T 82 82	Z1 11 11	Z2 M8 × M8 ×	Dime A 10 10	T *2 M6 M6	QK 70 70	b 12 12	fey h 8 8	t	1 5 5	Ta M M10 M10	p 20 20
Servomotor rated output 400 W (400 V)	Reduction ratio 1/5 1/11 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B	G 13 13 13	S 40 40 40	T 82 82 82	Z1 11 11 11	Z2 M8 × 1 M8 × 1 M8 × 1 M8 × 1	Dime A 10 10 10	T *2 M6 M6 M6 M6	QK 70 70 70	b 12 12 12	h 8 8 8 8		1 5 5 5	Ta M M10 M10 M10	p 20 20 20
Servomotor rated output 400 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB	G 13 13 13 13 13	S 40 40 40 40	T 82 82 82 82 82	Z1 11 11 11 11 11	Z2 M8 × M8 × M8 × M8 × M8 ×	Dime A 10 10 10 10	T *2 M6 M6 M6 M6 M6 M6	QK 70 70 70 70 70	b 12 12 12 12 12	key h 8 8 8 8 8 8	t ! !	1 5 5 5 5 5 5	Ta M10 M10 M10 M10 M10	p 20 20 20 20 20
Servomotor rated output 400 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB	G 13 13 13 13 13 13	S 40 40 40 40 40 40 40	T 82 82 82 82 82 82 82	Z1 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10	T *2 M6 M6 M6 M6 M6 M6 M6	QK 70 70 70 70 70 70	b 12 12 12 12 12 12 12	(ey h 8 8 8 8 8 8 8 8	t ! ! ! !	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M10 M10 M10 M10 M10 M10	P 20 20 20 20 20 20
Servomotor rated output 400 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A45400SB R88G-HPG32A052K0B	G 13 13 13 13 13 13 13	S 40 40 40 40 40 40 40	T 82 82 82 82 82 82 82	Z1 11 11 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10	T *2 - M6 -	QK 70 70 70 70 70 70 70 70	b 12 12 12 12 12 12 12 12	ey h 8 8 8 8 8 8 8 8 8		1 5 5 5 5 5 5 5 5 5 5	Ta M10	p 20 20 20 20 20 20 20 20 20
Servomotor rated output 400 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A052K0B R88G-HPG32A052K0B R88G-HPG32A112K0B	G 13 13 13 13 13 13 13 13 13	S 40 40 40 40 40 40 40	T 82 82 82 82 82 82 82 82 82	Z1 111 11 11 11 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10 10	T *2 - M6	s [mm] QK 70 70 70 70 70 70 70 70 70	k 12 12 12 12 12 12 12 12 12	h 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		1 5 5 5 5 5 5 5 5 5 5 5	Ta M10	P 20
Servomotor rated output 400 W (400 V) 600 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A45400SB R88G-HPG32A452K0B R88G-HPG32A112K0B R88G-HPG32A211K5B	G 13 13 13 13 13 13 13 13 13 13	S 40 40 40 40 40 40 40 40 40 40 40 40 40	T 82 82 82 82 82 82 82 82 82 82	Z1 111 11 11 11 11 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10	T *2 M6	s [mm] QK 70 70 70 70 70 70 70 70 70 70	b 12 12 12 12 12 12 12 12 12 12	h 8		1 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M10	L 20
Servomotor rated output 400 W (400 V) 600 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/33	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB	G 13 13 13 13 13 13 13 13 13 13 13	S 40 40 40 40 40 40 40 40 40	T 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 111 111 111 111 111 111	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10	T *2 M6 M6 </th <th>s [mm] QK 70 70 70 70 70 70 70 70 70 70</th> <th>b 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>ey h 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</th> <th></th> <th>1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5</th> <th>Ta M10 M10</th> <th>P L 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20</th>	s [mm] QK 70 70 70 70 70 70 70 70 70 70	b 12 12 12 12 12 12 12 12 12 12 12 12	ey h 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M10	P L 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 400 W (400 V) 600 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A11K5B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A33600SB	G 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13 16	S 40 40 40 40 40 40 40 40 40 50	T 82 82 82 82 82 82 82 82 82 82 82	Z1 11 11 11 11 11 11 11 11 11 11 11	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	T *2 M6 M6 </th <th>s [mm] QK 70 70 70 70 70 70 70 70 70 70</th> <th>b 12 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>h 8</th> <th>t</th> <th>1 5 5 5 5 5 5 5 5 5</th> <th>Ta M10 M10</th> <th>P L 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20</th>	s [mm] QK 70 70 70 70 70 70 70 70 70 70	b 12 12 12 12 12 12 12 12 12 12 12 12 12	h 8	t	1 5 5 5 5 5 5 5 5 5	Ta M10	P L 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
Servomotor rated output 400 W (400 V) 600 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A11K5B R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB	G 13	S 40 40 40 40 40 40 40 40 40 50 50	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 11 11 11 11 11 11 11 11 11 11 11 11 1	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	T *2 - M6 M6	s [mm] OK 70 70 70 70 70 70 70 70 70 70	b 12 12 12 12 12 12 12 12 12 12 12 12 12	ey h 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 9	t	1 5	Ta M M10	L 20
Servomotor rated output 400 W (400 V) 600 W (400 V)	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/5 1/11	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A112K0SB R88G-HPG32A112K0SB	G 13	S 40 50 40 40	T 82 82 82 82 82 82 82 82 82 82 82 82 82	Z1 111 111 111 111 111 111 111 111 111	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	T *2 - M6 M6	s [mm] OK 70 70 70 70 70 70 70 70 70 70	k 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 14 12 12	ey h 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	t	1 5	Ta M M10	L 20
Servomotor rated output 400 W (400 V) 600 W (400 V) 1 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A45400SB R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A112K0SB R88G-HPG32A112K0SB R88G-HPG32A211K0SB	G 13	S 40	T 82	Z1 11 11 11 11 11 11 11 11 11 11 11 11 1	Z2 M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	T *2 - M6 M6	s [mm] OK 70 70 70 70 70 70 70 70 70 70	k 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 14 12 12 12 12 12 12	h 8	t	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M M10	L 20
Servomotor rated output 400 W (400 V) 600 W (400 V) 1 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33 1/45 1/5 1/11 1/21 1/33	Model R88G-HPG32A052K0B R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A3600SB R88G-HPG32A45400SB R88G-HPG32A45400SB R88G-HPG32A45400SB R88G-HPG32A45400SB R88G-HPG32A45400SB R88G-HPG32A112K0B R88G-HPG32A211K5B R88G-HPG32A33600SB R88G-HPG32A33600SB R88G-HPG32A451K5B R88G-HPG32A053K0B R88G-HPG32A112K0SB R88G-HPG32A211K0SB R88G-HPG32A211K0SB R88G-HPG32A211K0SB	G 13 16 13 16 17	S 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 50 40 40 50 40 50 50	T 82	Z1 11 11 11 11 11 11 11 11 11 11 11 11 1	Z2 M8 × M8 ×	Dime A 10 10 10 10 10 10 10 10 10 10	T *2 - M6 M6	s [mm] OK 70 70 70 70 70 70 70 70 70 70	k 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 14 12 12 12 14 12 14	h 8 9 8 8 9 9	t	1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Ta M M10 M10	L 20

*1. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine.
 *2. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at
of the model number.

(Example: R88G-HPG32A053K0BJ)

- 3. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.
- 4. You cannot use this type of Decelerator for the Servomotor with key.
- 5. The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.



***3.** The tolerance is "h8" for R88G-HPG50□.

• For 2,0)00-r/min	Servomotors (1.5	to 3 kV	N)												
Servomotor	Reduction		Outline						Dimen	sions [n	nm]					
rated output	ratio	Model	drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 *1	Е	F1	F2
	1/5	R88G-HPG32A053K0B	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
1 5 144	1/11	R88G-HPG32A112K0SB	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
1.5 KW	1/21	R88G-HPG50A213K0B	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
	1/33	R88G-HPG50A332K0SB	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
	1/5	R88G-HPG32A053K0B	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
2 6.00	1/11	R88G-HPG32A112K0SB	1	107	133	120	130 × 130	135	145	115	114	84		98	12.5	35
2 KW	1/21	R88G-HPG50A213K0B	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
	1/33	R88G-HPG50A332K0SB	2	123	156	170	170 dia.	190	145	165	163	122		103	12	53
	1/5	R88G-HPG32A054K0B	1	129	133	120	130 × 130	135	145	115	114	84		98	12.5	35
2 6.00	1/11	R88G-HPG50A115K0B	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
JKW	1/21	R88G-HPG50A213K0SB	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
	1/25	R88G-HPG65A253K0SB	1	231	222	230	130 × 130	260	145	220	214	168	220	165	12	57
								Dime	nsion	s [mm]						
Servomotor	Reduction	Model	•	•	-		70				к	ey			Та	р
	1410		G	5	1	21	22	A	1 *2 -	QK	b	h	t	1	Μ	L
	1/5	R88G-HPG32A053K0B	13	40	82	11	M8 × 1	8	M6	70	12	8	1	5	M10	20
15 KW	1/11	R88G-HPG32A112K0SB	13	40	82	11	M8 × 1	8	M6	70	12	8	1	5	M10	20
1.5 KW	1/21	R88G-HPG50A213K0B	16	50	82	14	M8 × 1	16 I	M6	70	14	9	5	.5	M10	20
	1/33	R88G-HPG50A332K0SB	16	50	82	14	M8 × 1	6	M6	70	14	9	5	.5	M10	20
	1/5	R88G-HPG32A053K0B	13	40	82	11	M8 × 1	8	M6	70	12	8	4	5	M10	20
2 kW	1/11	R88G-HPG32A112K0SB	13	40	82	11	M8 × 1	8	M6	70	12	8	4	5	M10	20
2 KW	1/21	R88G-HPG50A213K0B	16	50	82	14	M8 × 1	6	M6	70	14	9	5	.5	M10	20
	1/33	R88G-HPG50A332K0SB	16	50	82	14	M8 × 1	6	M6	70	14	9	5	.5	M10	20
	1/5	R88G-HPG32A054K0B	13	40	82	11	M8 × 2	25 I	M6	70	12	8	4	5	M10	20
3 kW	1/11	R88G-HPG50A115K0B	16	50	82	14	M8 × 2	25	M6	70	14	9	5	.5	M10	20
0.00	1/21	R88G-HPG50A213K0SB	16	50	82	14	M8 × 2	25 I	M6	70	14	9	5	.5	M10	20
	1/25		25	80	130	18	$M8 \times 2$	25 1	MB	110	22	14		a 🗌	M16	35

*1. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine. *2. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at \Box of the model number.

(Example: R88G-HPG32A05900TBJ)

3. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.

4. You cannot use this type of Decelerator for the Servomotor with key.

5. The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.

Outline Drawing 1



***3.** The tolerance is "h8" for R88G-HPG50 and R88G-HPG65. ***4.** The model R88G-HPG65 has the taps for eye bolts.



Comentar	Deduction		Quitting					D	imensi	ions [m	m]					
rated output	ratio	Model	drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 * 1	Е	F1	F2
	1/5	R88G-HPG50A055K0SB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
4 614	1/11	R88G-HPG50A115K0SB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
4 KVV	1/21	R88G-HPG65A205K0SB	1	231	222	230	180 × 180	260	200	220	214	168	220	165	12	57
	1/33	R88G-HPG65A255K0SB	1	231	222	230	180 × 180	260	200	220	214	168	220	165	12	57
	1/5	R88G-HPG50A054K5TB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
5 KW 5 5 kW	1/12	R88G-HPG65A127K5SB	1	254.5	222	230	180 × 180	260	200	220	214	168	220	165	12	57
0.0 KW	1/20	R88G-HPG65A204K5TB	1	254.5	222	230	180 × 180	260	200	220	214	168	220	165	12	57
						•		Dimer	nsions	[mm]						
Servomotor	Reduction	Model		6	-	71	70	Dimer	nsions \T	[mm]	Ke	ey			Та	p
Servomotor rated output	Reduction ratio	Model	G	S	т	Z1	Z2	Dimer A	nsions (T 2	[mm] QK	Ke b	≥y h	ť	1	Ta M	p L
Servomotor rated output	Reduction ratio 1/5	Model R88G-HPG50A055K0SB⊡	G 16	S 50	T 82	Z1	Z2 M12 × 2	Dimer A \$	Sions T 2 16	[mm] QK 70	K e b 14	≥y h 9	t* 5.	1 5	Ta M M10	р L 20
Servomotor rated output	Reduction ratio 1/5 1/11	Model R88G-HPG50A055K0SB□ R88G-HPG50A115K0SB□	G 16 16	S 50 50	T 82 82	Z1 14 14	Z2 M12 × 2 M12 × 2	Dimer A \$ 25 N 25 N	Sions T 2 16 16	[mm] QK 70 70	K e b 14 14	y h 9 9	t [*] 5. 5.	1 5 5	Ta M M10 M10	p L 20 20
Servomotor rated output	Reduction ratio 1/5 1/11 1/21	Model R88G-HPG50A055K0SB R88G-HPG50A115K0SB R88G-HPG65A205K0SB	G 16 16 25	S 50 50 80	T 82 82 130	Z1 14 14 18	Z2 M12 × 2 M12 × 2 M12 × 2	Dimer A * 25 N 25 N 25 N	nsions (T 2 16 16 18	[mm] QK 70 70 110	b 14 14 22	by h 9 9 14	t 5. 5.	1 5 5 9	M M10 M10 M10 M16	p 20 20 35
Servomotor rated output	Reduction ratio 1/5 1/11 1/21 1/33	Model R88G-HPG50A055K0SB R88G-HPG50A115K0SB R88G-HPG65A205K0SB R88G-HPG65A255K0SB	G 16 16 25 25	S 50 50 80 80	T 82 82 130 130	Z1 14 14 18 18	Z2 M12 × 2 M12 × 2 M12 × 2 M12 × 2 M12 × 2	Dimer A * 25 N 25 N 25 N 25 N	16 18 18	[mm] QK 70 70 110 110	b 14 14 22 22	b h 9 9 14 14	t 5. 5. 9	1 5 5 9	Ta M10 M10 M10 M16 M16	p 20 20 35 35
Servomotor rated output 4 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5	Model R88G-HPG50A055K0SB R88G-HPG50A115K0SB R88G-HPG65A205K0SB R88G-HPG65A255K0SB R88G-HPG65A255K0SB R88G-HPG50A054K5TB	G 16 16 25 25 16	S 50 50 80 80 50	T 82 82 130 130 82	Z1 14 14 18 18 18 14	Z2 M12 × 2 M12 × 2 M12 × 2 M12 × 2 M12 × 2 M12 × 2	Dimer A * 25 M 25 M 25 M 25 M 25 M	Image: state	QK 70 70 110 110 70	b 14 14 22 22 14	by h 9 9 14 14 9	tt 5. 5. 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	1 5 5 5 9 9 5 5	Ta M10 M10 M16 M16 M10	P 20 20 35 35 20
Servomotor rated output 4 kW 5 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/12	Model R88G-HPG50A055K0SB R88G-HPG50A115K0SB R88G-HPG65A205K0SB R88G-HPG65A255K0SB R88G-HPG65A255K0SB R88G-HPG65A127K5SB R88G-HPG65A127K5SB	G 16 16 25 25 16 25	S 50 50 80 80 50 80	T 82 130 130 82 130	Z1 14 14 18 18 18 14 14	Z2 M12 × 2 M12 × 2	Dimer A 25 M 25 M 25 M 25 M 25 M 25 M 25 M	nsions 1 1 1 6 1 8 1 8 1 6 1 8 1 8 118118118118118118	[mm] QK 70 70 110 110 70 110	b 14 14 22 22 14 22 22 14	b h 9 9 14 14 9 14	t' 5. 5. 9 9 5.	1 5 5 9 9 5 9	M M10 M10 M10 M10 M10 M16 M16 M10	p 20 20 35 35 20 35

• For 1,500-r/min Servomotors (4 kW to 5.5 kW)

*1. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine.
 *2. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at
of the model number. (Example: R88G-HPG11B05100BJ)

3. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.

4. You cannot use this type of Decelerator for the Servomotor with key.

5. The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.

Outline Drawing 1



*3. The model R88G-HPG65 has the taps for eye bolts.

For 1,000-r/min Servomotors (900 W to 3 kW)

		•														
Servomotor	Reduction	Model	Outline					0	Dimens	sions [n	ım]					
rated output	ratio	Woder	drawing	LM	LR	C1	C2	D1	D2	D3	D4	D5	D6 *1	Е	F1	F2
	1/5	R88G-HPG32A05900TB	1	129	133	120	130 × 130	135	145	115	114	84		98	12.5	35
900 W	1/11	R88G-HPG32A11900TB	1	129	133	120	130 × 130	135	145	115	114	84		98	12.5	35
900 W	1/21	R88G-HPG50A21900TB	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
	1/33	R88G-HPG50A33900TB	1	149	156	170	130 × 130	190	145	165	163	122	170	103	12	53
	1/5	R88G-HPG32A052K0TB	1	129	133	120	180 × 180	135	200	115	114	84		98	12.5	35
2 kW	1/11	R88G-HPG50A112K0TB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
2 KW	1/21	R88G-HPG50A212K0TB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
	1/25	R88G-HPG65A255K0SB	1	231	222	230	180 × 180	260	200	220	214	168	220	165	12	57
	1/5	R88G-HPG50A055K0SB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
3 kW	1/11	R88G-HPG50A115K0SB	1	149	156	170	180 × 180	190	200	165	163	122		103	12	53
0 KW	1/20	R88G-HPG65A205K0SB	1	231	222	230	180 × 180	260	200	220	214	168	220	165	12	57
	1/25	R88G-HPG65A255K0SB	1	231	222	230	180 × 180	260	200	220	214	168	220	165	12	57
_							· · · · ·	Dime	nsions	[mm]						
Servomotor	Reduction	Model	•	•	Ŧ		70	Dime	nsions	[mm]	Ke	∋y			Тар	
Servomotor rated output	Reduction ratio	Model	G	S	т	Z1	Z2	Dimer AT	rsions	[mm] QK	Ke b	ey h	t1		Tap M	L
Servomotor rated output	Reduction ratio 1/5	Model R88G-HPG32A05900TB□	G 13	S 40	T 82	Z1	Z2 M8 × 2	Dimer AT	n sions * *2 //6	[mm] QK 70	b	ey h 8	t1 5	N	Tap M	L 20
Servomotor rated output	Reduction ratio 1/5 1/11	Model R88G-HPG32A05900TB R88G-HPG32A11900TB	G 13 13	S 40 40	T 82 82	Z1 11 11	Z2 M8 × 2 M8 × 2	Dimer AT 5 M	nsions * *2 //6	[mm] QK 70 70	b 12 12	y h 8 8	t1 5 5	N	Tap M 110	L 20 20
Servomotor rated output 900 W	Reduction ratio 1/5 1/11 1/21	Model R88G-HPG32A05900TB R88G-HPG32A11900TB R88G-HPG50A21900TB	G 13 13 16	S 40 40 50	T 82 82 82	Z1 11 11 14	Z2 M8 × 2 M8 × 2 M8 × 2	Dimer AT 5 N 5 N	nsions **2 //6 //6	[mm] QK 0 70 0 70 0 70 0	b 12 12 14	by h 8 8 9	t1 5 5 5.5	N N 5 N	Tap M 110 110 110	L 20 20 20
Servomotor rated output 900 W	Reduction ratio 1/5 1/11 1/21 1/33	Model R88G-HPG32A05900TB R88G-HPG32A11900TB R88G-HPG50A21900TB R88G-HPG50A33900TB	G 13 13 16 16	S 40 40 50 50	T 82 82 82 82 82	Z1 11 11 14 14	Z2 M8 × 2	Dimei AT 5 N 5 N 5 N 5 N	**2 16 16 16 16 16 16 16	[mm] QK 70 70 70 70 70 70 70	b 12 12 14 14	≥ y h 8 8 9 9	t1 5 5.5 5.5	N N 5 N 5 N	Tap M 110 110 110 110	L 20 20 20 20 20
Servomotor rated output 900 W	Reduction ratio 1/5 1/11 1/21 1/33 1/5	Model R88G-HPG32A05900TB R88G-HPG32A11900TB R88G-HPG50A21900TB R88G-HPG50A33900TB R88G-HPG32A052K0TB	G 13 13 16 16 13	S 40 40 50 50 40	T 82 82 82 82 82 82 82	Z1 11 11 14 14 11	Z2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M8 × 2	Dimer AT 5 M 5 M 5 M 5 M 25 M	**2 16 16 16 16 16 16 16	[mm] QK 70 1 70 2 70 1 70 1 70 2	b 12 12 14 14 14	by h 8 8 9 9 8 8	t1 5 5.5 5.5 5.5 5	5 M 5 N	Tap M 110 110 110 110	L 20 20 20 20 20 20
Servomotor rated output 900 W	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/11	Model R88G-HPG32A05900TB R88G-HPG32A11900TB R88G-HPG50A21900TB R88G-HPG50A33900TB R88G-HPG50A33900TB R88G-HPG50A112K0TB	G 13 13 16 16 13 16	S 40 40 50 50 40 50	T 82 82 82 82 82 82 82 82	Z1 11 11 11 14 14 14 11 14	Z2 M8 × 2 M12 × 2 M12 × 2	Dimer AT 5 M 5 M 5 M 5 M 5 M 25 M 25 M	**2 16 16 16 16 16 16 16 16 16 16 16	[mm] QK 70 70 70 70 70 70 70 70 70 70 70 70 70	b 12 12 14 14 14 12 14	b h 8 8 9 9 8 8 9 9 8 9	t1 5 5.5 5.5 5.5 5.5	N 5 N 5 N 5 N 5 N	Tap M 110 110 110 110 110 110	L 20 20 20 20 20 20 20 20
Servomotor rated output 900 W 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/11 1/21	Model R88G-HPG32A05900TB R88G-HPG32A11900TB R88G-HPG50A21900TB R88G-HPG50A33900TB R88G-HPG50A33900TB R88G-HPG50A112K0TB R88G-HPG50A212K0TB	G 13 13 16 16 13 16 16 16	S 40 40 50 50 40 50 50 50	T 82 82 82 82 82 82 82 82 82	Z1 11 11 14 14 14 14 14 14 14	Z2 M8 × 2 M12 × 2 M12 × 2 M12 × 2 M12 × 2	Dimer AT 5 M 5 M 5 M 5 M 25 M 25 M 25 M	**2 16 16 16 16 16 16 16 16 16 16 16 16	[mm] QK 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0	K b 12 12 14 14 14 12 14 14	b h 8 8 9 9 9 8 9 9 9 9 9	t1 5 5.5 5.5 5.5 5.5 5.5 5.5	N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N	Tap M 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110	L 20 20 20 20 20 20 20 20 20
Servomotor rated output 900 W 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/25	Model R88G-HPG32A05900TB□ R88G-HPG32A11900TB□ R88G-HPG50A21900TB□ R88G-HPG50A33900TB□ R88G-HPG50A33900TB□ R88G-HPG50A112K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□	G 13 13 16 16 13 16 16 16 16 25	S 40 40 50 50 40 50 50 80	T 82 82 82 82 82 82 82 82 82 130	Z1 11 11 14 14 14 14 14 14 14 18	Z2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M12 × 2	Dimer AT 5 M 5 M 5 M 5 M 25 M 25 M 25 M 25 M	**2 16 16 16 16 16 16 16 16 16 16 18	[mm] QK 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 0 70 1	Ka b 12 12 14 14 12 14 12 14 22	b b b b b c c c c c c c c	t1 5 5.5 5.5 5.5 5.5 5.5 5.5 9	M 5 M 5 N 5 N 5 N 5 N	Tap 110 110 110 110 110 110 110 110 110 1110 1110 1110 1110 1110 1110 1110 1110	L 20 20 20 20 20 20 20 20 20 35
Servomotor rated output 900 W 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/25 1/5	Model R88G-HPG32A05900TB□ R88G-HPG32A11900TB□ R88G-HPG50A21900TB□ R88G-HPG50A33900TB□ R88G-HPG50A33900TB□ R88G-HPG50A112K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A255K0SB□	G 13 13 16 16 13 16 13 16 16 25 16	S 40 50 50 50 50 80 50	T 82 82 82 82 82 82 82 82 130 82	Z1 111 11 14 14 14 14 14 14 14 14 14 14 14	Z2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M12 × 2	Dimen 45 55 55 55 55 55 55 55 55 55 55 55 55 65 75 75 75 75 75 75 75 75 76 75 76 76 76 76 76 76 77 76	**2 16	[mm] QK 70 70 70 70 70 70 70 70	Ke b 12 12 14 14 14 12 14 12 14 12 14 14 14 14 14 14 14 14 14 14 14 14	by h 8 8 9 9 9 8 9 9 9 14 9	t1 5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N	Tap M 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 1110 1110	L 20 20 20 20 20 20 20 20 20 20 35 20
Servomotor rated output 900 W 2 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/25 1/5 1/11	Model R88G-HPG32A05900TB□ R88G-HPG32A11900TB□ R88G-HPG50A21900TB□ R88G-HPG50A21900TB□ R88G-HPG50A33900TB□ R88G-HPG50A112K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□ R88G-HPG50A212K0TB□	G 13 13 16 16 13 16 13 16 16 25 16 16	S 40 40 50 50 50 80 50 50	T 82 82 82 82 82 82 82 82 130 82 82 82	Z1 11 11 14 14 14 14 14 14 14 14 14 14 14	Z2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M12 × 2	Dimen 47 5 M 5 M 5 M 5 M 25 M	**2 16	[mm] QK 70 70 70 70 70 70 70 70	Ke b 12 12 14 14 12 14 12 14 12 14 14 14 14 14 14 14 14 14 14 14 14 14	by h 8 8 9 9 9 8 9 9 9 14 9 9 9	t1 5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N	Tap M 110 110 110 110 110 110 110 110 110 110 110 110 110 110 1110 1110 1110 1110 1110 1110 1110	L 20 20 20 20 20 20 20 20 20 20 35 20 20
Servomotor rated output 900 W 2 kW 3 kW	Reduction ratio 1/5 1/11 1/21 1/33 1/5 1/11 1/21 1/25 1/5 1/11 1/20	Model R88G-HPG32A05900TB R88G-HPG32A11900TB R88G-HPG50A21900TB R88G-HPG50A33900TB R88G-HPG50A33900TB R88G-HPG50A112K0TB R88G-HPG50A212K0TB R88G-HPG50A212K0TB R88G-HPG50A055K0SB R88G-HPG50A115K0SB R88G-HPG50A115K0SB	G 13 13 16 16 13 16 16 16 25 16 16 16 25	S 40 40 50 50 50 80 50 50 80 50 80 50 80 50	T 82 82 82 82 82 82 82 82 130 82 82 130	Z1 11 11 14 14 14 14 14 14 14 14 18 14 14	Z2 M8 × 2 M8 × 2 M8 × 2 M8 × 2 M12 × 2	Dimen 5 M 5 M 5 M 5 M 25 M	**2 16 16 16 16 16 16 16 16 16 16 16 18 16 18 16 18 16 18 16 18 16 18 18	[mm] QK 0 70 0 70 0 70 0 70 0 70 0 70 1 70 0 70 0 70 0 70 0 70 1 70 1 70 1	Ke 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14 22 14 14 22	b h 8 9 9 8 9 9 14 9 9 14	t1 5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 9 9 5.5 5.5	N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N 5 N	Tap M 110 110 110 110 110 110 110 110 110 110 110 110 110 110 1110 110 1110 1110 1110 1110 1110 1110 1110 1110 1110	L 20 20 20 20 20 20 20 20 20 35 20 20 35

*1. D6 is the maximum diameter of the decelerator body between the flange side and Servomotor side. (See Outline Drawing) The value is given only when the diameter is larger than the diameters of these two sides. Take heed of this when you mount the decelerator to the machine. *2. Indicates set bolt.

Note: 1. The standard shaft type is a straight shaft.

2. A model with a key and tap is indicated with "J" at \Box of the model number.

(Example: R88G-HPG32A05900TBJ)

3. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.

4. You cannot use this type of Decelerator for the Servomotor with key.

5. The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.

Outline Drawing 1



***3.** The tolerance is "h8" for R88G-HPG50 and R88G-HPG65. ***4.** The model R88G-HPG65 \square has the taps for eye bolts.

Backlash: 15 Arcminutes Max.

• For 3,000-r/min Servomotors

Model							Dim	ensions [mm]				
			LM	LR	C1	C2	D1	D2	D3	F	G	S	т
	1/5	R88G-VRXF05B100CJ	67.5	32	40	52	46	60	50	3	6	12	20
50 W	1/9	R88G-VRXF09B100CJ	67.5	32	40	52	46	60	50	3	6	12	20
50 W	1/15	R88G-VRXF15B100CJ	78.0	32	40	52	46	60	50	3	6	12	20
	1/25	R88G-VRXF25B100CJ	78.0	32	40	52	46	60	50	3	6	12	20
	1/5	R88G-VRXF05B100CJ	67.5	32	40	52	46	60	50	3	6	12	20
100 W	1/9	R88G-VRXF09B100CJ	67.5	32	40	52	46	60	50	3	6	12	20
100 W	1/15	R88G-VRXF15B100CJ	78.0	32	40	52	46	60	50	3	6	12	20
	1/25	R88G-VRXF25B100CJ	78.0	32	40	52	46	60	50	3	6	12	20
	1/5	R88G-VRXF05B200CJ	72.5	32	60	52	70	60	50	3	10	12	20
200 W	1/9	R88G-VRXF09C200CJ	89.5	50	60	78	70	90	70	3	8	19	30
200 W	1/15	R88G-VRXF15C200CJ	100.0	50	60	78	70	90	70	3	8	19	30
	1/25	R88G-VRXF25C200CJ	100.0	50	60	78	70	90	70	3	8	19	30
	1/5	R88G-VRXF05C400CJ	89.5	50	60	78	70	90	70	3	8	19	30
400 W	1/9	R88G-VRXF09C400CJ	89.5	50	60	78	70	90	70	3	8	19	30
400 W	1/15	R88G-VRXF15C400CJ	100.0	50	60	78	70	90	70	3	8	19	30
	1/25	R88G-VRXF25C400CJ	100.0	50	60	78	70	90	70	3	8	19	30
	1/5	R88G-VRXF05C750CJ	93.5	50	80	78	90	90	70	3	10	19	30
750 W	1/9	R88G-VRXF09D750CJ	97.5	61	80	98	90	115	90	5	10	24	40
(200 V)	1/15	R88G-VRXF15D750CJ	110.0	61	80	98	90	115	90	5	10	24	40
	1/25	R88G-VRXF25D750CJ	110.0	61	80	98	90	115	90	5	10	24	40

	Dimensions [mm]											
	Ν	lodel	71	70				Ke	∋y		Та	ар
			21	22	AIT	L .	QK	b	h	t1	m	I
	1/5	R88G-VRXF05B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
50 W	1/9	R88G-VRXF09B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
50 W	1/15	R88G-VRXF15B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
	1/25	R88G-VRXF25B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
	1/5	R88G-VRXF05B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
100 W	1/9	R88G-VRXF09B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
100 W	1/15	R88G-VRXF15B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
	1/25	R88G-VRXF25B100CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
	1/5	R88G-VRXF05B200CJ	M4	M5	M4	12	16	4	4	2.5	M5	10
200 W	1/9	R88G-VRXF09C200CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
200 W	1/15	R88G-VRXF15C200CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
	1/25	R88G-VRXF25C200CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
	1/5	R88G-VRXF05C400CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
400 W	1/9	R88G-VRXF09C400CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
400 W	1/15	R88G-VRXF15C400CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
	1/25	R88G-VRXF25C400CJ	M4	M6	M5	20	22	6	6	3.5	M6	12
	1/5	R88G-VRXF05C750CJ	M5	M6	M6	20	22	6	6	3.5	M6	12
750 W	1/9	R88G-VRXF09D750CJ	M5	M8	M6	20	30	8	7	4	M8	16
(200 V)	1/15	R88G-VRXF15D750CJ	M5	M8	M6	20	30	8	7	4	M8	16
	1/25	R88G-VRXF25D750CJ	M5	M8	M6	20	30	8	7	4	M8	16

* Indicates set bolt.

Note: 1. The standard shaft type is a shaft with key and tap.
2. The diameter of the motor shaft insertion hole is the same as the shaft diameter of the corresponding Servomotor.

You cannot use this type of Decelerator for the Servomotor with key.
 The dimensional drawings in this document are for showing main dimensions only, and they do not give the details of the product shape.



МЕМО

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Interpreting Model Numbers

AC Servo Drives with Built-in EtherCAT Communications

R88D-1S N 01 H -ECT (5)

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

No	Item	Symbol	Specifications
(1)	1S-series Servo Driv	ve	
(2)	Servo Drive Type	Ν	Standard / Communication type
		01	100 W
		02	200 W
		04	400 W
		06	600 W
		08	750 W
(0)	Applicable	10	1 kW
(3)	rated output	15	1.5 kW
		20	2 kW
		30	3 kW
		55	5.5 kW
		75	7.5 kW
		150	15 kW
		L	100 VAC
(4)	Power Supply	н	200 VAC
	, shage	F	400 VAC
(5)	Communications type	ECT	EtherCAT Communications

AC Servomotor

<u>R88M-1 M 100 30 S -BOS2</u> (2) (6)

(1)

(3) (4) (5)

(5)

No	Item	Symbol	Specifications
(1)	1S-series Servomot	or	
(2)	Servomotor Type	L	Standard / Low-inertia type
(2)	Servolliotor Type	М	Standard / Middle-inertia 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)	Deteril enternet	1K5	1.5 kW
(3)	Raled oulput	2K0	2 kW
		3K0	3 kW
		4K0	4 kW
		4K7	4.7 kW
		5K0	5 kW
		5K5	5.5 kW
		7K0	7.5 kW
		11K0	11 kW
		15K0	15 kW
		10	1,000 r/min
(4)	Rated rotation	15	1,500 r/min
(4)	speed	20	2,000 r/min
		30	3,000 r/min
	Servo Drive main	S	100 VAC absolute encoder
(5)	power supply	Т	200 VAC absolute encoder
	encoder type	С	400 VAC absolute encoder
	Options		
	Ducha	None	Without brake
	Вгаке	В	With 24-VDC brake
(6)	Oil agol	None	Without oil seal
	UII SEAI	0	With oil seal
	Key and ten	None	Straight shaft
	Rey and tap	S2	With key and tap

Decelerator **Backlash: 3 Arcminutes Max.**

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

No	Item	Symbol	Specifications
(1)	Decelerator for Serv	omotor Bad	cklash: 3 Arcminutes max.
		11B	40 imes 40
		14A	60 imes 60
(2)	Flange size	20A	90 × 90
(-)	number	32A	120 × 120
		50A	170 × 170
		65A	230 × 230
		05	1/5
		11	1/11
		12	1/12
(2)	Poduction ratio	20	1/20
(3)	neuuciion railo	21	1/21
		25	1/25
		33	1/33
		45	1/45
		050	50 W
		100	100 W
		200	200 W
		400	400 W
		600	600 W
		750	750 W
	Applicable	900	900 W
(4)	Servomotor rated	1K0	1 kW
	output *	1K5	1.5 kW
		2K0	2 kW
		3K0	3 kW
		4K0	4 kW
		4K5	4.5 kW
		5K0	5 kW
		7K5	7.5 kW
		None	3,000-r/min Servomotors
(5)	Servomotor type *	S	2,000-r/min Servomotors
		Т	1,000-r/min Servomotors
(6)	Backlash	В	Backlash: 3 Arcminutes max.
	A	None	Straight shaft
(7)	Option	J	With key and tap

* This is a standard model number of servo motor; this model number structure can be applied to other motors. Confirm decelerator and servomotor combination table when you select a Servomotor.

Backlash: 15 Arcminutes Max.

R88G-VRXF 09 B 100 C J (4) (5) (6) (1)

(2)	(3)
-----	-----

No	Item	Specifications				
(1)	Decelerator for Servomotor Backlash: 15 Arcminutes max.					
		05	1/5			
(0)	Goor Potio	09	1/9			
(2)	Gear hallo	15	1/15			
		25	1/25			
		В	□52			
(3)	Flange Size	С	□78			
	- Cambol	D	□98			
		100	50 W, 100 W			
(4)	Applicable	200	200 W			
(4)	rated output	400	400 W			
		750	750 W			
(5)	Backlash	С	Backlash: 15 Arcminutes Max			
(6)	Option	J	With key and tap			

Table of AC Servomotor Variations



(2)	(3)	(4)		(5)		(6)		(7)		(8)		
				Power su	pply spec	ifications						
T	Rated	Rotation speed	Model	ABS	ABS	ABS	Brake		Oils	seal	Shaft	type
туре	output			400	200	100						
				С	Т	S	None	В	None	0	None	S2
	50 W		R88M-1M05030		>	1	1	1	~	1	~	1
	100 W		R88M-1M10030		1	1	1	1	~	1	1	1
М	200 W		R88M-1M20030		~	1	1	1	1	1	1	1
	400 W		R88M-1M40030		~	1	1	1	1	1	1	1
	750 W		R88M-1M75030		~		1	1	1	1	1	1
	750 W		R88M-1L75030	1			1	1	1	1	1	1
	1 kW	3,000 r/min	R88M-1L1K030	1	~		1	1	1	1	1	1
	1.5 kW		R88M-1L1K530	1	~		1	1	1	1	1	1
1	2 kW		R88M-1L2K030	1	~		1	1	1	1	1	1
L	3 kW		R88M-1L3K030	1	~		1	1	1	1	1	1
	4 kW		R88M-1L4K030	1	~		1	1	1	1	1	1
	4.7 kW		R88M-1L4K730		1							
	5 kW		R88M-1L5K030	1			1	1	~	1	~	1
	400 W		R88M-1M40020	1			1	1	1	1	1	1
	600 W	2,000 r/min	R88M-1M60020	1			1	1	~	1	1	1
м	1 kW		R88M-1M1K020	1	~		1	1	1	1	1	1
IVI	1.5 kW		R88M-1M1K520	1	~		1	1	1	1	1	1
	2 kW		R88M-1M2K020	1	1		1	1	~	1	1	1
	3 kW		R88M-1M3K020	1	~		1	1	~	1	~	1
	4 kW		R88M-1M4K015	1	1		1	1	~	1	1	1
	5 kW		R88M-1M5K015		~							
	5.5 kW	1 E00 r/min	R88M-1M5K515	~			1	1	<	1	~	1
M	7.5 kW	1,500 1/1111	R88M-1M7K515	1	1		1	1	~	1	~	1
	11 kW		R88M-1M11K015	~	~		1	1	<	~	~	1
	15 kW		R88M-1M15K015	1	~		1	1	~	1	~	1
	900 W		R88M-1M90010	1	1		1	1	~	1	~	1
М	2 kW	1,000 r/min	R88M-1M2K010	~	~		1	1	<	~	~	1
	3 kW		R88M-1M3K010	1	~		1	1	~	1	1	1
M:Middle inertia L:Low inertia	100: 100 W 1K0: 1 kW 3K0: 3 kW	10: 1,000 r/min 15: 1,500 r/min 20: 2,000 r/min 30: 3,000 r/min		C: 400 VA encode T: 200 VA encode S: 100 VA encode	C (with ab r) ABS/INC C (with ab r) ABS/INC C (with ab C (with ab r) ABS/INC	solute solute solute	None: Without B: With 24- brake	orake VDC	None: W oil seal O: With oil	/ithout seal	None: Straight S2: With key tap	shaft / and

Ordering Information

AC Servo Drives with Built-in EtherCAT Communications

Power supply voltage	Rated output	Model
	100 W	R88D-1SN01L-ECT
Single-phase 100 VAC	200 W	R88D-1SN02L-ECT
	400 W	R88D-1SN04L-ECT
	100 W	R88D-1SN01H-ECT
	200 W	R88D-1SN02H-ECT
Single-phase/3-phase 200 VAC	400 W	R88D-1SN04H-ECT
	750 W	R88D-1SN08H-ECT
	1.5 kW	R88D-1SN15H-ECT
	1 kW	R88D-1SN10H-ECT
	2 kW	R88D-1SN20H-ECT
	3 kW	R88D-1SN30H-ECT
3-phase 200 VAC	5.5 kW	R88D-1SN55H-ECT
	7.5 kW	R88D-1SN75H-ECT
	15 kW	R88D-1SN150H-ECT
	600 W	R88D-1SN06F-ECT
	1 kW	R88D-1SN10F-ECT
	1.5 kW	R88D-1SN15F-ECT
	2 kW	R88D-1SN20F-ECT
3-phase 400 VAC	3 kW	R88D-1SN30F-ECT
	5.5 kW	R88D-1SN55F-ECT
	7.5 kW	R88D-1SN75F-ECT
	15 kW	R88D-1SN150F-ECT

AC Servomotors

• 3,000-r/min Servomotors

Specifications			Model			
			Without oil seal			
			Straight shaft	With key and tap		
		50 W	R88M-1M05030S	R88M-1M05030S-S2		
	100 \/AC	100 W	R88M-1M10030S	R88M-1M10030S-S2		
	TOU VAC	200 W	R88M-1M20030S	R88M-1M20030S-S2		
		400 W	R88M-1M40030S	R88M-1M40030S-S2		
		50 W	R88M-1M05030T	R88M-1M05030T-S2		
		100 W	R88M-1M10030T	R88M-1M10030T-S2		
		200 W	R88M-1M20030T	R88M-1M20030T-S2		
		400 W	R88M-1M40030T	R88M-1M40030T-S2		
		750 W	R88M-1M75030T	R88M-1M75030T-S2		
	200 VAC	1 kW	R88M-1L1K030T	R88M-1L1K030T-S2		
		1.5 kW	R88M-1L1K530T	R88M-1L1K530T-S2		
WILLIOUL DIAKE		2 kW	R88M-1L2K030T	R88M-1L2K030T-S2		
		3 kW	R88M-1L3K030T	R88M-1L3K030T-S2		
		4 kW	R88M-1L4K030T	R88M-1L4K030T-S2		
		4.7 kW	R88M-1L4K730T	R88M-1L4K730T-S2		
		750 W	R88M-1L75030C	R88M-1L75030C-S2		
		1 kW	R88M-1L1K030C	R88M-1L1K030C-S2		
		1.5 kW	R88M-1L1K530C	R88M-1L1K530C-S2		
	400 VAC	2 kW	R88M-1L2K030C	R88M-1L2K030C-S2		
		3 kW	R88M-1L3K030C	R88M-1L3K030C-S2		
		4 kW	R88M-1L4K030C	R88M-1L4K030C-S2		
		5 kW	R88M-1L5K030C	R88M-1L5K030C-S2		
		50 W	R88M-1M05030S-B	R88M-1M05030S-BS2		
		100 W	R88M-1M10030S-B	R88M-1M10030S-BS2		
	100 170	200 W	R88M-1M20030S-B	R88M-1M20030S-BS2		
		400 W	R88M-1M40030S-B	R88M-1M40030S-BS2		
		50 W	R88M-1M05030T-B	R88M-1M05030T-BS2		
		100 W	R88M-1M10030T-B	R88M-1M10030T-BS2		
		200 W	R88M-1M20030T-B	R88M-1M20030T-BS2		
		400 W	R88M-1M40030T-B	R88M-1M40030T-BS2		
		750 W	R88M-1M75030T-B	R88M-1M75030T-BS2		
	200 VAC	1 kW	R88M-1L1K030T-B	R88M-1L1K030T-BS2		
With brake		1.5 kW	R88M-1L1K530T-B	R88M-1L1K530T-BS2		
With Brand		2 kW	R88M-1L2K030T-B	R88M-1L2K030T-BS2		
		3 kW	R88M-1L3K030T-B	R88M-1L3K030T-BS2		
		4 kW	R88M-1L4K030T-B	R88M-1L4K030T-BS2		
		4.7 kW	R88M-1L4K730T-B	R88M-1L4K730T-BS2		
		750 W	R88M-1L75030C-B	R88M-1L75030C-BS2		
		1 kW	R88M-1L1K030C-B	R88M-1L1K030C-BS2		
		1.5 kW	R88M-1L1K530C-B	R88M-1L1K530C-BS2		
	400 VAC	2 kW	R88M-1L2K030C-B	R88M-1L2K030C-BS2		
		3 kW	R88M-1L3K030C-B	R88M-1L3K030C-BS2		
		4 kW	R88M-1L4K030C-B	R88M-1L4K030C-BS2		
		5 kW	R88M-1L5K030C-B	R88M-1L5K030C-BS2		

Specifications			Model				
			With oil seal				
			Straight shaft	With key and tap			
		50 W	R88M-1M05030S-O	R88M-1M05030S-OS2			
	100 1/10	100 W	R88M-1M10030S-O	R88M-1M10030S-OS2			
	TOU VAC	200 W	R88M-1M20030S-O	R88M-1M20030S-OS2			
		400 W	R88M-1M40030S-O	R88M-1M40030S-OS2			
		50 W	R88M-1M05030T-O	R88M-1M05030T-OS2			
		100 W	R88M-1M10030T-O	R88M-1M10030T-OS2			
		200 W	R88M-1M20030T-O	R88M-1M20030T-OS2			
		400 W	R88M-1M40030T-O	R88M-1M40030T-OS2			
		750 W	R88M-1M75030T-O	R88M-1M75030T-OS2			
	200 VAC	1 kW	R88M-1L1K030T-O	R88M-1L1K030T-OS2			
		1.5 kW	R88M-1L1K530T-O	R88M-1L1K530T-OS2			
without brake		2 kW	R88M-1L2K030T-O	R88M-1L2K030T-OS2			
		3 kW	R88M-1L3K030T-O	R88M-1L3K030T-OS2			
		4 kW	R88M-1L4K030T-O	R88M-1L4K030T-OS2			
		4.7 kW	R88M-1L4K730T-O	R88M-1L4K730T-OS2			
		750 W	R88M-1L75030C-O	R88M-1L75030C-OS2			
	400 VAC	1 kW	R88M-1L1K030C-O	R88M-1L1K030C-OS2			
		1.5 kW	R88M-1L1K530C-O	R88M-1L1K530C-OS2			
		2 kW	R88M-1L2K030C-O	R88M-1L2K030C-OS2			
		3 kW	R88M-1L3K030C-O	R88M-1L3K030C-OS2			
		4 kW	R88M-1L4K030C-O	R88M-1L4K030C-OS2			
		5 kW	R88M-1L5K030C-O	R88M-1L5K030C-OS2			
		50 W	R88M-1M05030S-BO	R88M-1M05030S-BOS2			
	100.140	100 W	R88M-1M10030S-BO	R88M-1M10030S-BOS2			
	TOU VAC	200 W	R88M-1M20030S-BO	R88M-1M20030S-BOS2			
		400 W	R88M-1M40030S-BO	R88M-1M40030S-BOS2			
		50 W	R88M-1M05030T-BO	R88M-1M05030T-BOS2			
		100 W	R88M-1M10030T-BO	R88M-1M10030T-BOS2			
		200W	R88M-1M20030T-BO	R88M-1M20030T-BOS2			
		400 W	R88M-1M40030T-BO	R88M-1M40030T-BOS2			
		750 W	R88M-1M75030T-BO	R88M-1M75030T-BOS2			
	200 VAC	1 kW	R88M-1L1K030T-BO	R88M-1L1K030T-BOS2			
		1.5 kW	R88M-1L1K530T-BO	R88M-1L1K530T-BOS2			
with brake		2 kW	R88M-1L2K030T-BO	R88M-1L2K030T-BOS2			
		3 kW	R88M-1L3K030T-BO	R88M-1L3K030T-BOS2			
		4 kW	R88M-1L4K030T-BO	R88M-1L4K030T-BOS2			
		4.7 kW	R88M-1L4K730T-BO	R88M-1L4K730T-BOS2			
		750 W	R88M-1L75030C-BO	R88M-1L75030C-BOS2			
		1 kW	R88M-1L1K030C-BO	R88M-1L1K030C-BOS2			
		1.5 kW	R88M-1L1K530C-BO	R88M-1L1K530C-BOS2			
	400 VAC	2 kW	R88M-1L2K030C-BO	R88M-1L2K030C-BOS2			
		3 kW	R88M-1L3K030C-BO	R88M-1L3K030C-BOS2			
		4 kW	R88M-1L4K030C-BO	R88M-1L4K030C-BOS2			
		5 kW	R88M-1L5K030C-BO	R88M-1L5K030C-BOS2			

• 2,000-r/min Servomotors

			Model			
Sp	ecifications		Without	t oil seal		
			Straight shaft	With key and tap		
		1 kW	R88M-1M1K020T	R88M-1M1K020T-S2		
	200 1/40	1.5 kW	R88M-1M1K520T	R88M-1M1K520T-S2		
	200 VAC	2 kW	R88M-1M2K020T	R88M-1M2K020T-S2		
		3 kW	R88M-1M3K020T	R88M-1M3K020T-S2		
Without broke		400 W	R88M-1M40020C	R88M-1M40020C-S2		
Williout Drake		600 W	R88M-1M60020C	R88M-1M60020C-S2		
	400 VAC	1 kW	R88M-1M1K020C	R88M-1M1K020C-S2		
		1.5 kW	R88M-1M1K520C	R88M-1M1K520C-S2		
		2 kW	R88M-1M2K020C	R88M-1M2K020C-S2		
		3 kW	R88M-1M3K020C	R88M-1M3K020C-S2		
		1 kW	R88M-1M1K020T-B	R88M-1M1K020T-BS2		
		1.5 kW	R88M-1M1K520T-B	R88M-1M1K520T-BS2		
	200 VAC	2 kW	R88M-1M2K020T-B	R88M-1M2K020T-BS2		
		3 kW	R88M-1M3K020T-B	R88M-1M3K020T-BS2		
Mith broke		400 W	R88M-1M40020C-B	R88M-1M40020C-BS2		
With brake		600 W	R88M-1M60020C-B	R88M-1M60020C-BS2		
	400 \/AC	1 kW	R88M-1M1K020C-B	R88M-1M1K020C-BS2		
	400 VAC	1.5 kW	R88M-1M1K520C-B	R88M-1M1K520C-BS2		
		2 kW	R88M-1M2K020C-B	R88M-1M2K020C-BS2		
		3 kW	R88M-1M3K020C-B	R88M-1M3K020C-BS2		

			Model				
Sp	ecifications		With a	bil seal			
			Straight shaft	With key and tap			
		1 kW	R88M-1M1K020T-O	R88M-1M1K020T-OS2			
	200 1/4 C	1.5 kW	R88M-1M1K520T-O	R88M-1M1K520T-OS2			
	200 VAC	2 kW	R88M-1M2K020T-O	R88M-1M2K020T-OS2			
		3 kW	R88M-1M3K020T-O	R88M-1M3K020T-OS2			
Without broke		400 W	R88M-1M40020C-O	R88M-1M40020C-OS2			
Williout Drake		600 W	R88M-1M60020C-O	R88M-1M60020C-OS2			
	400 VAC	1 kW	R88M-1M1K020C-O	R88M-1M1K020C-OS2			
		1.5 kW	R88M-1M1K520C-O	R88M-1M1K520C-OS2			
		2 kW	R88M-1M2K020C-O	R88M-1M2K020C-OS2			
		3 kW	R88M-1M3K020C-O	R88M-1M3K020C-OS2			
		1 kW	R88M-1M1K020T-BO	R88M-1M1K020T-BOS2			
	000.140	1.5 kW	R88M-1M1K520T-BO	R88M-1M1K520T-BOS2			
	200 VAC	2 kW	R88M-1M2K020T-BO	R88M-1M2K020T-BOS2			
		3 kW	R88M-1M3K020T-BO	R88M-1M3K020T-BOS2			
With broke		400 W	R88M-1M40020C-BO	R88M-1M40020C-BOS2			
WIIII DIAKE		600 W	R88M-1M60020C-BO	R88M-1M60020C-BOS2			
	400 \/AC	1 kW	R88M-1M1K020C-BO	R88M-1M1K020C-BOS2			
	400 VAC	1.5 kW	R88M-1M1K520C-BO	R88M-1M1K520C-BOS2			
		2 kW	R88M-1M2K020C-BO	R88M-1M2K020C-BOS2			
		3 kW	R88M-1M3K020C-BO	R88M-1M3K020C-BOS2			

				Model		
Specifications		Without oil seal				
			Straight shaft	With key and tap		
		4 kW	R88M-1M4K015T	R88M-1M4K015T-S2		
		5 kW	R88M-1M5K015T	R88M-1M5K015T-S2		
	200 VAC	7.5 kW	R88M-1M7K515T	R88M-1M7K515T-S2		
		11 kW	R88M-1M11K015T	R88M-1M11K015T-S2		
		15 kW	R88M-1M15K015T	R88M-1M15K015T-S2		
without brake		4 kW	R88M-1M4K015C	R88M-1M4K015C-S2		
		5.5 kW	R88M-1M5K515C	R88M-1M5K515C-S2		
	AC400V	7.5 kW	R88M-1M7K515C	R88M-1M7K515C-S2		
		11 kW	R88M-1M11K015C	R88M-1M11K015C-S2		
		15 kW	R88M-1M15K015C	R88M-1M15K015C-S2		
		4 kW	R88M-1M4K015T-B	R88M-1M4K015T-BS2		
		5 kW	R88M-1M5K015T-B	R88M-1M5K015T-BS2		
	200 VAC	7.5 kW	R88M-1M7K515T-B	R88M-1M7K515T-BS2		
		11 kW	R88M-1M11K015T-B	R88M-1M11K015T-BS2		
		15 kW	R88M-1M15K015T-B	R88M-1M15K015T-BS2		
with brake		4 kW	R88M-1M4K015C-B	R88M-1M4K015C-BS2		
		5.5 kW	R88M-1M5K515C-B	R88M-1M5K515C-BS2		
	AC400V	7.5 kW	R88M-1M7K515C-B	R88M-1M7K515C-BS2		
		11 kW	R88M-1M11K015C-B	R88M-1M11K015C-BS2		
		15 kW	R88M-1M15K015C-B	R88M-1M15K015C-BS2		

• 1500-r/min Servomotors

			Model			
Sp	ecifications		With c	bil seal		
			Straight shaft	With key and tap		
		4 kW	R88M-1M4K015T-O	R88M-1M4K015T-OS2		
		5 kW	R88M-1M5K015T-O	R88M-1M5K015T-OS2		
	200 VAC	7.5 kW	R88M-1M7K515T-O	R88M-1M7K515T-OS2		
		11 kW	R88M-1M11K015T-O	R88M-1M11K015T-OS2		
Without broke		15 kW	R88M-1M15K015T-O	R88M-1M15K015T-OS2		
Williout brake		4 kW	R88M-1M4K015C-O	R88M-1M4K015C-OS2		
		5.5 kW	R88M-1M5K515C-O	R88M-1M5K515C-OS2		
	AC400V	7.5 kW	R88M-1M7K515C-O	R88M-1M7K515C-OS2		
		11 kW	R88M-1M11K015C-O	R88M-1M11K015C-OS2		
		15 kW	R88M-1M15K015C-O	R88M-1M15K015C-OS2		
		4 kW	R88M-1M4K015T-BO	R88M-1M4K015T-BOS2		
		5 kW	R88M-1M5K015T-BO	R88M-1M5K015T-BOS2		
	200 VAC	7.5 kW	R88M-1M7K515T-BO	R88M-1M7K515T-BOS2		
		11 kW	R88M-1M11K015T-BO	R88M-1M11K015T-BOS2		
With broke		15 kW	R88M-1M15K015T-BO	R88M-1M15K015T-BOS2		
Will Drake		4 kW	R88M-1M4K015C-BO	R88M-1M4K015C-BOS2		
		5.5 kW	R88M-1M5K515C-BO	R88M-1M5K515C-BOS2		
	AC400V	7.5 kW	R88M-1M7K515C-BO	R88M-1M7K515C-BOS2		
		11 kW	R88M-1M11K015C-BO	R88M-1M11K015C-BOS2		
		15 kW	R88M-1M15K015C-BO	R88M-1M15K015C-BOS2		

• 1,000-r/min Servomotors

			Model				
Specifications			Without oil seal				
			Straight shaft	With key and tap			
		900 W	R88M-1M90010T	R88M-1M90010T-S2			
	200 VAC	2 kW	R88M-1M2K010T	R88M-1M2K010T-S2			
Without broke		3 kW	R88M-1M3K010T	R88M-1M3K010T-S2			
WITHOUT DRAKE	400 VAC	900 W	R88M-1M90010C	R88M-1M90010C-S2			
		2 kW	R88M-1M2K010C	R88M-1M2K010C-S2			
		3 kW	R88M-1M3K010C	R88M-1M3K010C-S2			
		900 W	R88M-1M90010T-B	R88M-1M90010T-BS2			
	200 VAC	2 kW	R88M-1M2K010T-B	R88M-1M2K010T-BS2			
With brake		3 kW	R88M-1M3K010T-B	R88M-1M3K010T-BS2			
		900 W	R88M-1M90010C-B	R88M-1M90010C-BS2			
	400 VAC	2 kW	R88M-1M2K010C-B	R88M-1M2K010C-BS2			
		3 kW	R88M-1M3K010C-B	R88M-1M3K010C-BS2			

Specifications			Model			
			With oil seal			
			Straight shaft	With key and tap		
		900 W	R88M-1M90010T-O	R88M-1M90010T-OS2		
	200 VAC	2 kW	R88M-1M2K010T-O	R88M-1M2K010T-OS2		
\\/itheutherelye		3 kW	R88M-1M3K010T-O	R88M-1M3K010T-OS2		
Williout Drake	400 VAC	900 W	R88M-1M90010C-O	R88M-1M90010C-OS2		
		2 kW	R88M-1M2K010C-O	R88M-1M2K010C-OS2		
		3 kW	R88M-1M3K010C-O	R88M-1M3K010C-OS2		
		900 W	R88M-1M90010T-BO	R88M-1M90010T-BOS2		
	200 VAC	2 kW	R88M-1M2K010T-BO	R88M-1M2K010T-BOS2		
		3 kW	R88M-1M3K010T-BO	R88M-1M3K010T-BOS2		
With drake		900 W	R88M-1M90010C-BO	R88M-1M90010C-BOS2		
	400 VAC	2 kW	R88M-1M2K010C-BO	R88M-1M2K010C-BOS2		
		3 kW	R88M-1M3K010C-BO	R88M-1M3K010C-BOS2		

Decelerator (Backlash: 3 Arcminutes Max.) • For 3,000-r/min Servomotors

Servomotor rated output	Reduction ratio	Model (Straight shaft) *
	1/21	R88G-HPG14A21100B
50 W	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 (200 V)	1/21	R88G-HPG32A21750B
(200 V)	1/33	R88G-HPG32A33750B
	1/45	R88G-HPG32A45750B
	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
750 W (400 V)	1/21	R88G-HPG32A211K5B
(400 V)	1/33	R88G-HPG32A33600SB
	1/45	R88G-HPG50A451K5B
	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
1 kW	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG50A332K0B
	1/45	R88G-HPG50A451K5B
	1/5	R88G-HPG32A052K0B
	1/11	R88G-HPG32A112K0B
1.5 kW	1/21	R88G-HPG32A211K5B
	1/33	R88G-HPG50A332K0B
	1/45	R88G-HPG50A451K5B
	1/5	R88G-HPG32A052K0B
0 1444	1/11	R88G-HPG32A112K0B
∠ KVV	1/21	R88G-HPG50A212K0B
	1/33	R88G-HPG50A332K0B
	1/5	R88G-HPG32A053K0B
3 kW	1/11	R88G-HPG50A113K0B
	1/21	R88G-HPG50A213K0B
	1/5	R88G-HPG32A054K0B
4 kW	1/11	R88G-HPG50A115K0B
4.7 kW	1/5	R88G-HPG50A055K0B
5 kW	1/11	R88G-HPG50A115K0B

* The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at □ of the Decelerator model number. e.g. R88G-HPG11B05100BJ

For 2,000-r/min Servomotors

Servomotor rated output	Reduction 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
15 kW	1/11	R88G-HPG32A112K0SB
1.5 KW	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
	1/5	R88G-HPG32A053K0B
2 1/11	1/11	R88G-HPG32A112K0SB
2 800	1/21	R88G-HPG50A213K0B
	1/33	R88G-HPG50A332K0SB
	1/5	R88G-HPG32A054K0B
3 kW	1/11	R88G-HPG50A115K0B
U KVV	1/21	R88G-HPG50A213K0SB
	1/25	R88G-HPG65A253K0SB

* The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at □ of the Decelerator model number. e.g. R88G-HPG11B05100BJ

• For 1,500-r/min Servomotors

Servomotor rated output	Reduction ratio	Model (Straight shaft) *
	1/5	R88G-HPG50A055K0SB
4 1/1/	1/11	R88G-HPG50A115K0SB
4 KVV	1/21	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB
	1/5	R88G-HPG50A054K5TB
5 kW	1/12	R88G-HPG65A127K5SB
5.5 KW	1/20	R88G-HPG65A204K5TB

* The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at □ of the Decelerator model number. e.g. R88G-HPG11B05100BJ

• For 1,000-r/min Servomotors

Servomotor rated output	Reduction ratio	Model (Straight shaft) *
	1/5	R88G-HPG32A05900TB
900 W/	1/11	R88G-HPG32A11900TB
900 W	1/21	R88G-HPG50A21900TB
	1/33	R88G-HPG50A33900TB
	1/5	R88G-HPG32A052K0TB
2 1/1/	1/11	R88G-HPG50A112K0TB
2 KVV	1/21	R88G-HPG50A212K0TB
	1/25	R88G-HPG65A255K0SB
	1/5	R88G-HPG50A055K0SB
3 KW	1/11	R88G-HPG50A115K0SB
3 KVV	1/20	R88G-HPG65A205K0SB
	1/25	R88G-HPG65A255K0SB

★ The standard shaft type is a straight shaft. A model with a key and tap is indicated with "J" at □ of the Decelerator model number. e.g. R88G-HPG11B05100BJ

Decelerator (Backlash: 15 Arcminutes Max.)

• For 3,000-r/min Servomotors

Servomotor rated output	Reduction ratio	Model
	1/5	R88G-VRXF05B100CJ
50 W/	1/9	R88G-VRXF09B100CJ
50 W	1/15	R88G-VRXF15B100CJ
	1/25	R88G-VRXF25B100CJ
	1/5	R88G-VRXF05B100CJ
100 \/	1/9	R88G-VRXF09B100CJ
100 W	1/15	R88G-VRXF15B100CJ
	1/25	R88G-VRXF25B100CJ
	1/5	R88G-VRXF05B200CJ
200 \\/	1/9	R88G-VRXF09C200CJ
200 W	1/15	R88G-VRXF15C200CJ
	1/25	R88G-VRXF25C200CJ
	1/5	R88G-VRXF05C400CJ
400 \\	1/9	R88G-VRXF09C400CJ
400 W	1/15	R88G-VRXF15C400CJ
	1/25	R88G-VRXF25C400CJ
	1/5	R88G-VRXF05C750CJ
750 W	1/9	R88G-VRXF09D750CJ
(200 V)	1/15	R88G-VRXF15D750CJ
	1/25	R88G-VRXF25D750CJ

Cables and Peripheral Devices Encoder Cables (Standard Cable)

	Applicable Servomotor		Model
		3 m	R88A-CR1A003C
		5 m	R88A-CR1A005C
		10 m	R88A-CR1A010C
100 V	3,000-r/min Servomotors of	n Servomotors of W, 200 W, 400 W, / 30 m 40 m 50 m 3 m 5 m 20 m 30 m 40 m 50 m 3 m 10 m 50 m 3 m 50 m 3 m 10 m 50 m 10 m 10 m 50 m 10 m 10 m 50 m 10 m 10 m 10 m 10 m 10 m 10 m 10 m 1	R88A-CR1A015C
200 V	and 750 W	20 m	R88A-CR1A020C
		30 m	R88A-CR1A030C
		40 m	R88A-CR1A040C
		50 m	R88A-CR1A050C
	200 V·	3 m	R88A-CR1B003N
	3000-r/min Servomotors of	50 m 3 m 3 m 2 rvomotors of 5 m 2 rvomotors 15 m 2 0 m 2 0 m	R88A-CR1B005N
	1 to 3 kW 2000-r/min Servomotors	10 m	R88A-CR1B010N
200 V	1 to 3 kW 10 n 2000-r/min Servomotors 15 n 1000-r/min Servomotors 15 n	15 m	R88A-CR1B015N
400 V	400 V:	20 m	R88A-CR1B020N
	3 kW or less	30 m	R88A-CR1B030N
	2000-r/min Servomotors	40 m	R88A-CR1B040N
	1000-r/min Servomotors	50 m	R88A-CR1B050N
		3 m	R88A-CR1B003V
		5 m	R88A-CR1B005V
		10 m	R88A-CR1B010V
200 V	3000-r/min Servomotors of	15 m	R88A-CR1B015V
400 V	1500-r/min Servomotors	20 m	R88A-CR1B020V
		30 m	R88A-CR1B030V
		40 m	R88A-CR1B040V
		50 m	R88A-CR1B050V

Brake Cables (Standard Cable)

Applicable Servomotor		Model
	3 m	R88A-CA1A003B
	5 m	R88A-CA1A005B
	D-r/min Servomotors of N, 200 W, 400 W, and N* 10 m R88A-CA1, 20 m	R88A-CA1A010B
3,000-r/min Servomotors of		R88A-CA1A015B
750 W *		R88A-CA1A020B
	30 m	R88A-CA1A030B
4	40 m	R88A-CA1A040B
	50 m	R88A-CA1A050B
	Applicable Servomotor 3,000-r/min Servomotors of 100 W, 200 W, 400 W, and 750 W *	Applicable Servomotor 3 m 5 m 5 m 3,000-r/min Servomotors of 100 W, 200 W, 400 W, and 750 W * 15 m 20 m 30 m 40 m 50 m

* The Servomotors of 50 W are exempt from the applicable Servomotors. Use these combinations with caution.

			Without brake wire	With brake wire	
Applicable Servomotor			Model	Model	
		3 m	R88A-CA1A003S		
100 V 200 V		5 m	R88A-CA1A005S		
		10 m	R88A-CA1A010S		
	3,000-r/min Servomotors of 100 W,	15 m	3 m R88A-CA1A003S 5 m R88A-CA1A005S 10 m R88A-CA1A010S 15 m R88A-CA1A015S 20 m R88A-CA1A020S 30 m R88A-CA1A020S 30 m R88A-CA1A020S 30 m R88A-CA1A040S 50 m R88A-CA1A050S 3 m R88A-CA1B03S R88A-CA1B003B 5 m R88A-CA1B005S R88A-CA1B005B 10 m R88A-CA1B010S R88A-CA1B010B 15 m R88A-CA1B01S R88A-CA1B015B 20 m R88A-CA1B020S R88A-CA1B020B 30 m R88A-CA1B030S R88A-CA1B030B 40 m R88A-CA1B040S R88A-CA1B030B 40 m R88A-CA1B05S R88A-CA1B030B 50 m R88A-CA1C03S R88A-CA1C03B 5 m R88A-CA1C03S R88A-CA1C03B 5 m R88A-CA1C01S R88A-CA1C015B 20 m R88A-CA1C030S R88A-CA1C030B<		
	200 W, 400 W, and 750 W *	20 m	R88A-CA1A020S		
		30 m	R88A-CA1A030S		
		40 m	R88A-CA1A040S		
		50 m	R88A-CA1A050S		
		3 m	R88A-CA1B003S	R88A-CA1B003B	
		5 m	R88A-CA1B005S	R88A-CA1B005B	
		10 m	R88A-CA1B010S	R88A-CA1B010B	
200.1/	3,000-r/min Servomotors of 1 kW	15 m	R88A-CA1B015S	R88A-CA1B015B	
200 V	1,000-r/min Servomotors of 900 W	20 m	R88A-CA1B020S	R88A-CA1B020B	
		30 m	R88A-CA1B030S	R88A-CA1B030B	
		40 m	R88A-CA1B040S	R88A-CA1B040B	
		50 m	R88A-CA1B050S	R88A-CA1B050B	
		3 m	R88A-CA1C003S	R88A-CA1C003B	
		5 m	R88A-CA1C005S	R88A-CA1C005B	
		10 m	R88A-CA1C010S	R88A-CA1C010B	
000 V	3,000-r/min Servomotors of 1.5 kW	15 m	R88A-CA1C015S	R88A-CA1C015B	
200 V	2,000-r/min Servomotors of 1.5 kW	20 m	R88A-CA1C020S	R88A-CA1C020B	
		20 m R88A-CA1C020S R88 30 m R88A-CA1C030S R88 40 m R88A-CA1C040S R88	R88A-CA1C030B		
		40 m	R88A-CA1C040S	R88A-CA1C040B	
		50 m	R88A-CA1C050S	R88A-CA1C050B	
		3 m	R88A-CA1C003S	R88A-CA1D003B	
		5 m	R88A-CA1C005S	R88A-CA1D005B	
	3,000-r/min Servomotors of 750 W,	10 m	R88A-CA1C010S	R88A-CA1D010B	
400 V	1 kW, 1.5 kW, and 2 kW	15 m	R88A-CA1C015S	R88A-CA1D015B	
400 V	600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W	20 m	R88A-CA1C020S	R88A-CA1D020B	
		30 m	R88A-CA1C030S	R88A-CA1D030B	
		40 m	R88A-CA1C040S	R88A-CA1D040B	
		50 m	R88A-CA1C050S	R88A-CA1D050B	
		3 m	R88A-CA1E003S	R88A-CA1E003B	
		5 m	R88A-CA1E005S	R88A-CA1E005B	
	3,000-r/min Servomotors of 2 kW	10 m	R88A-CA1E010S	R88A-CA1E010B	
200 V	2,000-r/min Servomotors of 2 kW	15 m	R88A-CA1E015S	R88A-CA1E015B	
400 V	(200 V) and 3 kW (200 V/400 V)	20 m	R88A-CA1E020S	R88A-CA1E020B	
	(200 V/400 V) and 3 kW (400 V)	30 m	R88A-CA1E030S	R88A-CA1E030B	
		40 m	R88A-CA1E040S	R88A-CA1E040B	
		50 m	R88A-CA1E050S	R88A-CA1E050B	
		3 m	R88A-CA1F003S	R88A-CA1F003B	
		5 m	R88A-CA1F005S	R88A-CA1F005B	
		10 m	R88A-CA1F010S	R88A-CA1F010B	
000.14	1.000 m/min Com/crosters of 0.1111	15 m	R88A-CA1F015S	R88A-CA1F015B	
200 V	1,000-r/min Servomotors of 3 kW	20 m	R88A-CA1F020S	R88A-CA1F020B	
		30 m	R88A-CA1F030S	R88A-CA1F030B	
		40 m	R88A-CA1F040S	R88A-CA1F040B	
		50 m	R88A-CA1F050S	R88A-CA1F050B	

Motor Power Cables (Standard Cable)

* The Servomotors of 50 W are exempt from the applicable Servomotors. Use these combinations with caution.

Encoder Cables (Flexible Cable)

Applicable Servomotor		Model	
		3 m	R88A-CR1A003CF
		5 m	R88A-CR1A005CF
		10 m	R88A-CR1A010CF
100 V	3,000-r/min Servomotors of	15 m	R88A-CR1A015CF
200 V	and 750 W	20 m	R88A-CR1A020CF
		30 m	R88A-CR1A030CF
		40 m	R88A-CR1A040CF
		50 m	R88A-CR1A050CF
	200 V·	3 m	R88A-CR1B003NF
	3000-r/min Servomotors of	5 m	R88A-CR1B005NF
	1 to 3 kW 2000-r/min Servomotors	10 m	R88A-CR1B010NF
200 V	1000-r/min Servomotors	15 m	R88A-CR1B015NF
400 V	400V:	iotors of notors 5 m 10 m 15 m 20 m 30 m	R88A-CR1B020NF
	3 kW or less	30 m	R88A-CR1B030NF
	2000-r/min Servomotors	50 m 3 m 3 m 10 m rs 15 m 20 m 30 m rs 40 m rs 50 m	R88A-CR1B040NF
	1000-r/min Servomotors	50 m	R88A-CR1B050NF
		3 m	R88A-CR1B003VF
		5 m	R88A-CR1B005VF
		10 m	R88A-CR1B010VF
200 V	3000-r/min Servomotors of	15 m	R88A-CR1B015VF
400 V	1500-r/min Servomotors	20 m	R88A-CR1B020VF
		30 m	R88A-CR1B030VF
		40 m	R88A-CR1B040VF
		50 m	R88A-CR1B050VF

Brake Cables (Flexible Cable)

	Applicable Servomotor		Model
		3 m	R88A-CA1A003BF
		5 m 5 m 10 m 15 m W, and 750 W * 20 m	R88A-CA1A005BF
			R88A-CA1A010BF
100 V	100 V 3,000-r/min Servomotors of 100	15 m	R88A-CA1A015BF
200 V	W, 200 W, 400 W, and 750 W *	20 m	R88A-CA1A020BF
		30 m	R88A-CA1A030BF
		40 m	R88A-CA1A040BF
		50 m	R88A-CA1A050BF

* The Servomotors of 50 W are exempt from the applicable Servomotors. Use these combinations with caution.

Motor Power Cables (Flexible Cable)

Annliachla Conversetor		Without brake wire	With brake wire	
	Applicable Servolholor		Model	Model
		3 m	R88A-CA1A003SF	
		5 m	R88A-CA1A005SF	
		10 m	R88A-CA1A010SF	
100 V	3,000-r/min Servomotors of 100 W, 200 W,	15 m	R88A-CA1A015SF	
200 V	400 W, and 750 W *	20 m	R88A-CA1A020SF	
		30 m	R88A-CA1A030SF	
		40 m	R88A-CA1A040SF	
		50 m	R88A-CA1A050SF	
		3 m	R88A-CA1B003SF	R88A-CA1B003BF
	3,000-r/min Servomotors of 1 kW 2,000-r/min Servomotors of 1 kW 1,000-r/min Servomotors of 900 W	5 m	R88A-CA1B005SF	R88A-CA1B005BF
		10 m	R88A-CA1B010SF	R88A-CA1B010BF
200.1/		15 m	R88A-CA1B015SF	R88A-CA1B015BF
200 V		20 m	R88A-CA1B020SF	R88A-CA1B020BF
		30 m	R88A-CA1B030SF	R88A-CA1B030BF
		40 m	R88A-CA1B040SF	R88A-CA1B040BF
		50 m	R88A-CA1B050SF	R88A-CA1B050BF
		3 m	R88A-CA1C003SF	R88A-CA1C003BF
		5 m	R88A-CA1C005SF	R88A-CA1C005BF
		10 m	R88A-CA1C010SF	R88A-CA1C010BF
000 V	3,000-r/min Servomotors of 1.5 kW	15 m	R88A-CA1C015SF	R88A-CA1C015BF
200 V	2,000-r/min Servomotors of 1.5 kW	20 m	R88A-CA1C020SF	R88A-CA1C020BF
		30 m	R88A-CA1C030SF	R88A-CA1C030BF
		40 m	R88A-CA1C040SF	R88A-CA1C040BF
		50 m	R88A-CA1C050SF	R88A-CA1C050BF

* The Servomotors of 50 W are exempt from the applicable Servomotors. Use these combinations with caution.

Applicable Servemeter		Without brake wire	With brake wire	
	Applicable Servomotor		Model	Model
		3 m	R88A-CA1C003SF	R88A-CA1D003BF
		5 m	R88A-CA1C005SF	R88A-CA1D005BF
	3,000-r/min Servomotors of 750 W, 1 kW,	10 m	R88A-CA1C010SF	R88A-CA1D010BF
400 V	1.5 kW, and 2 kW	Applicable Servomotor Without brake wire Model 0r/min Servomotors of 750 W, 1 kW, W, and 2 kW 3 m R88A-CA1C003SF 10 m R88A-CA1C005SF 10 m 10 m R88A-CA1C010SF 20 m 20-r/min Servomotors of 900 W 15 m R88A-CA1C020SF 30 m R88A-CA1C030SF 30 m 30 m R88A-CA1C040SF 50 m 30 m R88A-CA1C000SF 30 m 30 m R88A-CA1C000SF 30 m 30 m R88A-CA1C00SF 50 m 30 m R88A-CA1C00SF 50 m 30 m R88A-CA1E003SF 50 m 30 m R88A-CA1E003SF 10 m 3 kW (200 V/400 V) 10 m R88A-CA1E003SF 30 m R88A-CA1E003SF 10 m 30 m R88A-CA1E003SF </td <td>R88A-CA1D015BF</td>	R88A-CA1D015BF	
400 V	1 kW, 1.5 kW, and 2 kW	20 m	R88A-CA1C020SF	R88A-CA1D020BF
	1,000-r/min Servomotors of 900 W	30 m	R88A-CA1C030SF	R88A-CA1D030BF
	Applicable Servomotor3,000-r/min Servomotors of 750 W, 1 kW, 1.5 kW, and 2 kW 2,000-r/min Servomotors of 400 W, 600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W3,000-r/min Servomotors of 2 kW (200 V) and 3 kW (200 V/400 V) 2,000-r/min Servomotors of 2 kW (200 V) 	40 m	R88A-CA1C040SF	R88A-CA1D040BF
		50 m	R88A-CA1C050SF	R88A-CA1D050BF
		3 m	R88A-CA1E003SF	R88A-CA1E003BF
		5 m	R88A-CA1E005SF	R88A-CA1E005BF
	3,000-r/min Servomotors of 2 kW (200 V)	10 m	R88A-CA1E010SF	R88A-CA1E010BF
200 V	2,000-r/min Servomotors of 2 kW (200 V)	15 m	R88A-CA1E015SF	R88A-CA1E015BF
400 V	and 3 kW (200 V/400 V)	20 m	R88A-CA1E020SF	R88A-CA1E020BF
	and 3 kW (400 V)	30 m	R88A-CA1E030SF	R88A-CA1E030BF
		40 m	R88A-CA1E040SF	R88A-CA1E040BF
		50 m	R88A-CA1E050SF	R88A-CA1E050BF
		3 m	R88A-CA1F003SF	R88A-CA1F003BF
		5 m	R88A-CA1F005SF	R88A-CA1F005BF
		10 m	R88A-CA1F010SF	R88A-CA1F010BF
200 V	The Servomotors of 50 W are exempt from	15 m	R88A-CA1F015SF	R88A-CA1F015BF
200 V	combination	20 m	R88A-CA1F020SF	R88A-CA1F020BF
3,000-r/min Servomotors of 750 W, 1 1 400 V 1.5 kW, and 2 kW 2,000-r/min Servomotors of 400 W, 60 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W 200 V 200 V 400 V 3,000-r/min Servomotors of 2 kW (200 c) 200 V 400 V 3,000-r/min Servomotors of 2 kW (200 c) 200 V 400 V 1,000-r/min Servomotors of 2 kW (200 V/400 V) 1,000 V 200 V 400 V 200 V 400 V 1500 r/min Servomotors of 4 kW, 5 kV 400 V 1500 r/min Servomotors of 11 kW, 15 400 V 1500 r/min Servomotors of 11 kW, 15 200 V 1500 r/min Servomotors of 7.5 kW, 1		30 m	R88A-CA1F030SF	R88A-CA1F030BF
	3,000-r/min Servomotors of 750 W, 1 kW, 1.5 kW, and 2 kW 20 V 2,000-r/min Servomotors of 400 W, 600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W 3,000-r/min Servomotors of 900 W 20 V 3,000-r/min Servomotors of 2 kW (200 V) and 3 kW (200 V/400 V) 20 V 3,000-r/min Servomotors of 2 kW (200 V) and 3 kW (200 V/400 V) 200 V and 3 kW (200 V/400 V) 1,000-r/min Servomotors of 2 kW (200 V/400 V) and 3 kW (400 V) 200 V 3000 r/min Servomotors. Use these combination 200 V 3000 r/min Servomotors of 4 kW, 4.7 kW 1500 r/min Servomotors of 4 kW, 5 kW 3000 V 1500 r/min Servomotors of 4 kW, 5 kW 1500 r/min Servomotors of 4 kW, 5 kW 1500 r/min Servomotors of 11 kW, 15 kW 00 V 1500 r/min Servomotors of 7.5 kW, 11 kW, 15 kW	40 m	R88A-CA1F040SF	R88A-CA1F040BF
		50 m	R88A-CA1F050SF	R88A-CA1F050BF
	200 V:	3 m	R88A-CA1H003SF	R88A-CA1H003BF
	3000 r/min Servomotors of 4 kW, 4.7 kW 1500 r/min Servomotors of 4 kW, 5 kW	5 m	R88A-CA1H005SF	R88A-CA1H005BF
200 V 400 V	400 V:	10 m	R88A-CA1H010SF	R88A-CA1H010BF
	1500 r/min Servomotors of 4 kw, 5 kw	15 m	R88A-CA1H015SF	R88A-CA1H015BF
	4 kW, 5.5 kW, 7.5 kW	20 m	R88A-CA1H020SF	R88A-CA1H020BF
		3 m	R88A-CA1J003SF	R88A-CA1J003BF
		5 m	R88A-CA1J005SF	R88A-CA1J005BF
400 V	1500 r/min Servomotors of 11 kW, 15 kW	10 m	R88A-CA1J010SF	R88A-CA1J010BF
		15 m	R88A-CA1J015SF	R88A-CA1J015BF
		20 m	R88A-CA1J020SF	R88A-CA1J020BF
		3 m	R88A-CA1K003SF	R88A-CA1K003BF
	1500 r/min Sonyomotors of 7 E WM 11 WM	5 m	R88A-CA1K005SF	R88A-CA1K005BF
200 V	15 kW	10 m	R88A-CA1K010SF	R88A-CA1K010BF
		15 m	R88A-CA1K015SF	R88A-CA1K015BF
		20 m	R88A-CA1K020SF	R88A-CA1K020BF

Brake Cables (Non-load side, Flexible Cable) When you use the brake cable with cable on non-load side such as R88A-CA1A BFR, use it in combination with the motor power cable with cable on non-load side such as R88A-CA1A SFR.

Applicable Servomotor		Model	
		3 m	R88A-CA1A003BFR
		5 m	R88A-CA1A005BFR
100 V 34 200 V 44	3000-r/min Servomotors of 50 W, 200 W, 400 W, 750 W ★	10 m	R88A-CA1A010BFR
		15 m	R88A-CA1A015BFR
		20 m	R88A-CA1A020BFR
		30 m	R88A-CA1A030BFR
		40 m	R88A-CA1A040BFR
		50 m	R88A-CA1A050BFR

* The Servomotors of 100 W are exempt from the applicable Servomotors. Use these combinations with caution.

Motor Power Cables (Non-load side, Flexible Cable)

When you use the motor power cable with cable on non-load side such as R88A-CA1A SFR and the brake cable together, use the brake cable with cable on non-load side such as R88A-CA1A.

Applicable Servemeter			Without brake wire	With brake wire
Applicable Servolitoto		Model	Model	
		3 m	R88A-CA1A003SFR	
	3000-r/min Servomotors of 50 W, 200 W, 400 W, 750 W ≭	5 m	R88A-CA1A005SFR	
100 V 200 V		10 m	R88A-CA1A010SFR	
		15 m	R88A-CA1A015SFR	
		20 m	R88A-CA1A020SFR	
		30 m	R88A-CA1A030SFR	
		40 m	R88A-CA1A040SFR	
		50 m	R88A-CA1A050SFR	

* The Servomotors of 100 W are exempt from the applicable Servomotors. Use these combinations with caution.

Extension Power Cable

Use the cables listed below to extend the motor power cable either with or without brake wire for a servomotor of 4 kW or more.

	Applicable Servomotor	Model	
200 V	200 V: 3000 r/min Servomotors of 4 kW, 4.7 kW 1500 r/min Servomotors of 4 kW, 5 kW	10 m	R88A-CA1HE10BF
400 V	3000 r/min Servomotors of 4 kW, 5 kW 1500 r/min Servomotors of 4 kW, 5.5 kW, 7.5 kW	10 m 20 m 10 m 20 m 10 m	R88A-CA1HE20BF
400 V	1500r/min Soryomotors of 11kW/ 15kW	10 m	R88A-CA1JE10BF
400 V		10 m 20 m 10 m 20 m 10 m 20 m	R88A-CA1JE20BF
200 V	1500r/min Servomotors of 7.5kW, 11kW, 10 m	10 m	R88A-CA1KE10BF
200 V	15kW	20 m	R88A-CA1KE20BF

Recommended EtherCAT Communications Cable

Use a 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
	-	OMRON -	0.3	XS6W-6LSZH8SS30CM-Y
Cable with Connectors on Both Ends (RJ45/RJ45)			0.5	XS6W-6LSZH8SS50CM-Y
Standard RJ45 plugs type *1			1	XS6W-6LSZH8SS100CM-Y
Wire gauge and number of pairs: AWG26, 4-pair cable Cable sheath material: LSZH *2			2	XS6W-6LSZH8SS200CM-Y
Cable color: Yellow *3			3	XS6W-6LSZH8SS300CM-Y
			5	XS6W-6LSZH8SS500CM-Y
	0	OMRON	0.3	XS5W-T421-AMD-K
Cable with Connectors on Both Ends (P 145/P 145)			0.5	XS5W-T421-BMD-K
Rugged RJ45 plugs type *1			1	XS5W-T421-CMD-K
Wire gauge and number of pairs: AWG22, 2-pair cable Cable color: Light blue			2	XS5W-T421-DMD-K
			5	XS5W-T421-GMD-K
			10	XS5W-T421-JMD-K
Cable with Connectors on Both Ends		OMRON	0.5	XS5W-T421-BMC-SS
(M12 Straight/RJ45)	15		1	XS5W-T421-CMC-SS
Shield Strengthening Connector cable *4			2	XS5W-T421-DMC-SS
Rugged RJ45 plugs type	()		3	XS5W-T421-EMC-SS
Wire Gauge and Number of Pairs: AWG22, 2-pair cable			5	XS5W-T421-GMC-SS
Cable color: Black			10	XS5W-T421-JMC-SS

***1.** Standard type cables length 0.2, 0.3, 0.5, 1, 1.5, 2, 3, 5, 7.5, 10, 15 and 20 m are available. Rugged type cables length 0.3, 0.5, 1, 2, 3, 5, 10 and 15 m are available.

For details, refer to Cat.No.G019.

***2.** The lineup features Low Smoke Zero Halogen cables for in-cabinet use and PUR cables for out-of-cabinet use. Although the LSZH cable is single shielded, its communications and noise characteristics meet the standards.

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

***4.** For details, contact your OMRON representative.

Cables/Connectors

Wire Gauge and Number of Pairs: AWG24, 4-pair Cable

Item	Appearance	Recommended manufacturer	Model
Cables		Hitachi Metals, Ltd.	NETSTAR-C5E SAB 0.5 × 4P CP *
Cables		Kuramo Electric Co.	KETH-SB *
RJ45 Connectors		Panduit Corporation	MPS588-C *

*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		JMACS Japan Co., Ltd.	PNET/B *
RJ45 Assembly Connector		OMRON	XS6G-T421-1 *

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

Peripheral Connector

Servo Drive Side Connectors One of each of servo drive side connectors (except the encoder connector) are included with the R88D-1SND-ECT AC Servo Drive. All connecters are also available separately for maintenance.

Name and applications	Model
Main circuit connector (CNA) *1 For R88D-1SN01L-ECT/-1SN02L-ECT/-1SN04L-ECT/-1SN01H-ECT/-1SN02H-ECT/-1SN04H-ECT/-1SN08H-ECT/-1SN10H-ECT	R88A-CN102P *4
Main circuit connector A (CNA) *2 For R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT	R88A-CN103P *4
Main circuit connector A (CNA) *2 For R88D-1SN55H-ECT/-1SN75H-ECT/-1SN55F-ECT/-1SN75F-ECT	R88A-CN106P
Main circuit connector A (CNA) For R88D-1SN150F-ECT	R88A-CN108P
Main circuit connector B (CNB) *2 For R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT	R88A-CN104P *4
Main circuit connector B (CNB) *2 For R88D-1SN55H-ECT/-1SN75H-ECT/-1SN55F-ECT/-1SN75F-ECT	R88A-CN107P
Main circuit connector B (CNB) For R88D-1SN150H-ECT/-1SN150F-ECT	R88A-CN101E
Motor connector (CNC) For R88D-1SN01L-ECT/-1SN02L-ECT/-1SN04L-ECT/-1SN01H-ECT/-1SN02H-ECT/-1SN04H-ECT/-1SN08H-ECT/-1SN10H-ECT	R88A-CN101A *4
Motor connector (CNC) For R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT	R88A-CN102A *4
Motor connector (CNC) For R88D-1SN55H-ECT/-1SN75H-ECT/-1SN55F-ECT/-1SN75F-ECT/-1SN150F-ECT	R88A-CN103A
Control power supply connector (CND) For R88D-1SN15H-ECT/-1SN20H-ECT/-1SN30H-ECT/-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT	R88A-CN101P *4
Control power supply connector (CND) For R88D-1SN55H-ECT/-1SN75H-ECT/-1SN150H-ECT/-1SN55F-ECT/-1SN75F-ECT/-1SN150F-ECT	R88A-CN105P
Main circuit connector E (CNE) *2 For R88D-1SN55H-ECT/-1SN75H-ECT/-1SN150H-ECT/-1SN55F-ECT/-1SN75F-ECT/-1SN150F-ECT	R88A-CN101D
Control I/O connector (CN1) *3	R88A-CN101C
Encoder connector (CN2)	R88A-CN101R
Brake interlock connector (CN12)	R88A-CN101B

*1. Two short-circuit wires are connected to the connector.

***2.** One short-circuit wire is connected to the connector.

***3.** Four short-circuit wires are connected to the connector.

***4.** One opener is included.

Servomotor Side Connector

	Ар	blicable Servo Drive and Power Cables	Model	
	100 V, 200 V	For 3,000 r/min (50 to 750 W)	R88A-CNK02R	
Encoder connector	200 V	For 3000 r/min (1 kW to 3 kW), 2000 r/min, 1000 r/min	R88A-CN104R	
Encoder connector	400 V	For 3000 r/min (750 kW to 3 kW), 2000 r/min, 1000 r/min		
	200 V, 400 V	For 3000 r/min (4 kW to 5 kW), 1500 r/min	R88A-CN105R	
Power connector (For 750 W max.) *		R88A-CN111A		
Brake connector (For 750 W m	ax.)		R88A-CN111B	
* This connector is used for	nower cables w		a connector cannot be	

* This connector is used for power cables with cable on load side such as R88A-CA1A SR8A-CA1A SF. This connector cannot be used for power cables with cable on non-load side such as R88A-CA1A SFR.

External Regeneration Resistance Unit Connector

Name and applications	Model
External Regeneration Resistance Unit Connector For R88A-RR550	R88A-CN101E *

* Same connector as main circuit connector B (CNB) for R88D-1SN150H-ECT/-1SN150F-ECT.

Shield Clamp Bracket

A shield clamp is used for fixing a power cable and connecting a shield wire of the power cable with FG in Servo Drives. The shield clamp consists of the shield clamp bracket and shield clamp plate.

Name	Applicable Servo Dri	Model	
	R88D-1SN55⊡-ECT R88D-1SN75F-ECT	R88A-CA1H	
Shield Clamp Bracket	R88D-1SN150F-ECT	R88A-CA1J	R88A-SC10CA
	R88D-1SN75H-ECT R88D-1SN150H-ECT	R88A-CA1K	

Note: An applicable power cable comes with a shield clamp bracket.

An extension cable does not come with a shield clamp bracket.
External Regeneration Resistors

Applicable Servo Drive	Specifications	Model		
R88D-1SN01L-ECT/-1SN02L-ECT	Regeneration process capacity: 24 W, 15 Ω	R88A-RR12015		
R88D-1SN01H-ECT/-1SN02H-ECT	Regeneration process capacity: 24 W, 25 Ω	R88A-RR12025		
R88D-1SN150H-ECT	Regeneration process capacity: 60 W, 2.5 Ω	R88A-RR30002R5		
R88D-1SN75H-ECT	Regeneration process capacity: 60 W, 4 Ω	R88A-RR30004		
R88D-1SN55H-ECT	Regeneration process capacity: 60 W, 5.4 Ω	R88A-RR30005R4		
R88D-1SN20H-ECT/-1SN30H-ECT/-1SN150F-ECT	Regeneration process capacity: 60 W, 10 Ω	R88A-RR30010		
R88D-1SN01L-ECT/-1SN02L-ECT	Regeneration process capacity: 60 W, 15 Ω	R88A-RR30015		
R88D-1SN55F-ECT/-1SN75F-ECT	Regeneration process capacity: 60 W, 16 Ω	R88A-RR30016		
R88D-1SN15H-ECT	Regeneration process capacity: 60 W, 17 Ω	R88A-RR30017		
R88D-1SN04L-ECT/-1SN08H-ECT/-1SN10H-ECT/ -1SN20F-ECT */-1SN30F-ECT *	Regeneration process capacity: 60 W, 20 Ω	R88A-RR30020		
R88D-1SN01H-ECT/-1SN02H-ECT/-1SN04H-ECT	Regeneration process capacity: 60 W, 25 Ω	R88A-RR30025		
R88D-1SN06F-ECT */-1SN10F-ECT */-1SN15F-ECT *	Regeneration process capacity: 60 W, 33 Ω	R88A-RR30033		
willon two partian connected External Deconstration De	voiatore for this model			

* Use two series-connected External Regeneration Resistors for this model.

External Regeneration Resistance Unit

Applicable Servo Drive	Specifications	Model
R88D-1SN150H-ECT	Regeneration process capacity: 120 W, 2.5 Ω	R88A-RR55002R5
R88D-1SN75H-ECT	Regeneration process capacity: 120W, 4 Ω	R88A-RR55004
R88D-1SN55H-ECT	Regeneration process capacity: 120W, 5.4 Ω	R88A-RR55005R4
R88D-1SN150F-ECT	Regeneration process capacity: 120W, 10 Ω	R88A-RR55010
R88D-1SN55F-ECT/-1SN75F-ECT	Regeneration process capacity: 120W, 16 Ω	R88A-RR55016
R88D-1SN150H-ECT	Regeneration process capacity: 640W, 2.5 Ω (with fan)	R88A-RR1K602R5
R88D-1SN75H-ECT	Regeneration process capacity: 640W, 4 Ω (with fan)	R88A-RR1K604
R88D-1SN55H-ECT	Regeneration process capacity: 640W, 5.4 Ω (with fan)	R88A-RR1K605R4
R88D-1SN20H-ECT/-1SN30H-ECT	Regeneration process capacity: 640 W, 10 Ω (with fan)	R88A-RR1K610
R88D-1SN55F-ECT/-1SN75F-ECT/-1SN150F-ECT	Regeneration process capacity: 640 W, 16 Ω (with fan)	R88A-RR1K616
R88D-1SN15H-ECT	Regeneration process capacity: 640 W, 17 Ω (with fan)	R88A-RR1K617
R88D-1SN08H-ECT/-1SN10H-ECT/-1SN20F-ECT */ -1SN30F-ECT */-1SN55F-ECT *	Regeneration process capacity: 640 W, 20 Ω (with fan)	R88A-RR1K620
R88D-1SN20F-ECT/-1SN30F-ECT	Regeneration process capacity: 640 W, 40 Ω (with fan)	R88A-RR1K640
R88D-1SN06F-ECT/-1SN10F-ECT/-1SN15F-ECT	Regeneration process capacity: 640 W, 66 Ω (with fan)	R88A-RR1K666
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 $\ensuremath{\ast}$ Use two series-connected External Regeneration Resistance Units for this model.

External Dynamic Brake Resistors

Applicable Servomotor	Specifications	Model
R88D-1SN150H-ECT	Resistance value: 1.25 Ω	R88A-DBR30001R2
R88D-1SN55H-ECT/-1SN75H-ECT	Resistance value: 1.5 Ω	R88A-DBR30001R5
R88D-1SN55F-ECT/-1SN75F-ECT	Resistance value: 4 Ω	R88A-DBR30004
R88D-1SN150F-ECT	Resistance value: 5 Ω	R88A-DBR30005

DC Reactor

For a recommended reactor for applicable Servomotor at 5.5 kW or more, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat. No. 1586).

Applicable Servomotor	Model
R88D-1SN01L-ECT/-1SN01H-ECT/-1SN02H-ECT	R88A-PD2002
R88D-1SN02L-ECT/-1SN04H-ECT	R88A-PD2004
R88D-1SN04L-ECT/-1SN08H-ECT	R88A-PD2007
R88D-1SN10H-ECT/-1SN15H-ECT	R88A-PD2015
R88D-1SN20H-ECT	R88A-PD2022
R88D-1SN30H-ECT	R88A-PD2037
R88D-1SN06F-ECT	R88A-PD4007
R88D-1SN10F-ECT/-1SN15F-ECT	R88A-PD4015
R88D-1SN20F-ECT	R88A-PD4022
R88D-1SN30F-ECT	R88A-PD4037

Footprint-type Noise Filter

For a recommended noise filter for applicable Servomotor at 5.5 kW or more, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat. No. 1586).

Applicable Servo Drive	Model
R88D-1SN01L-ECT/-1SN01H-ECT/-1SN02H-ECT (Single-phase input)	R88A-FI1S103
R88D-1SN02L-ECT/-1SN04H-ECT (Single-phase input)	R88A-FI1S105
R88D-1SN04L-ECT/-1SN08H-ECT (Single-phase input)	R88A-FI1S109
R88D-1SN15H-ECT (Single-phase input)	R88A-FI1S116
DOD 101014 ECT/ 101094 ECT /2 phase input)	R88A-FI1S202
Rood-TSNOTH-ECT/-TSNOZH-ECT (S-phase input)	R88A-FI1S203
R88D-1SN04H-ECT (3-phase input)	R88A-FI1S203
R88D-1SN08H-ECT (3-phase input)/-1SN10H-ECT	R88A-FI1S208
R88D-1SN15H-ECT (3-phase input)/-1SN20H-ECT/-1SN30H-ECT	R88A-FI1S216
R88D-1SN06F-ECT/-1SN10F-ECT-1SN15F-ECT/-1SN20F-ECT/-1SN30F-ECT	R88A-FI1S309

Software

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			Specifications Number of Mode		Model
			Media			
Sysmac Studio Standard Edition Ver.1. 2 *1	The Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance of machine automation controllers including the NJ/NX-series CPU Units, NY-series	 (Media only)	Sysmac Studio (32 bit) DVD	SYSMAC-SE200D		
	Industrial PC, EtherCat Slave, and the HMI. Sysmac Studio runs on the following OS. Windows 7 (32-bit/64-bit version)/Windows 8 (32-bit/64-bit version)/ Windows 8.1 (32-bit/64-bit version)/Windows 10 (32-bit/64-bit version) *2 The Sysmac Studio Standard Edition DVD includes Support Software to set up EtherNet/IP Units, DeviceNet slaves, Serial Communications Units, and	 (Media only)	Sysmac Studio (64 bit) DVD	SYSMAC-SE200D-64		
	Support Software for creating screens on HMIs (CX-Designer). For details, refer to your OMRON website.	1 license *3		SYSMAC-SE201L		
Sysmac Studio Drive Edition Ver.1.	Sysmac Studio Drive Edition is a limited license that provides selected functions required for 1S/G5 series Servo settings. This product is a license only. You need the Sysmac Studio Standard Edition DVD media to install it. With Drive Edition, you can use only the setup functions for 1S, G5-series Servo System	1 license		SYSMAC-DE001L		

*1 The 1S-series Servo Drive unit version 1.3 or later is supported by Sysmac Studio version 1.27 or higher.

*2 Model "SYSMAC-SE200D-64" runs on Windows 10 (64 bit).
*3 Multi licenses are available for the Sysmac Studio (3, 10, 30, or 50 licenses).

Collections of software functional components

Sysmac Library

Sysmac Library is POU Libraries (Function Block and Function) provided for NJ/NX-series Controller. Please download it from following URL and install to Sysmac Studio. http://www.ia.omron.com/sysmac_library/

Product	Features	Model
EtherCAT 1S Series Library	The EtherCAT 1S Series Library is used to initialize the absolute encoder, back up and restore the parameters for an OMRON 1S-series Servo Drive with built-in EtherCAT communications. You can use this library to reduce manpower of programming when implementing the processing for a Servo Drive.	SYSMAC-XR011

Combination table

Servo Drive and Servomotor Combinations

The following tables show the possible combinations of 1S-series Servo Drives and Servomotors.

The Servomotors and Servo Drives can only be used in the listed combinations. "
—"at the end of the motor model number is for options, such as the shaft type and brake.

3,000-r/min Servomotors and Servo Drives

Main circuit power supply voltage	Servomotor rated output	Servomotor	Servo Drive
	50 W	R88M-1M05030S-□	R88D-1SN01L-ECT
Single phase 100 VAC	100 W	R88M-1M10030S-□	R88D-1SN01L-ECT
Single-phase 100 VAC	200 W	R88M-1M20030S-	R88D-1SN02L-ECT
	400 W	R88M-1M40030S-	R88D-1SN04L-ECT
	50 W	R88M-1M05030T-	R88D-1SN01H-ECT
	100 W	R88M-1M10030T-	R88D-1SN01H-ECT
Single phase/2 phase 200 VAC	200 W	R88M-1M20030T-	R88D-1SN02H-ECT
Single-phase/3-phase 200 VAC	400 W	R88M-1M40030T-	R88D-1SN04H-ECT
	750 W	R88M-1M75030T-	R88D-1SN08H-ECT
	1.5 kW	R88M-1L1K530T-	R88D-1SN15H-ECT
	1 kW	R88M-1L1K030T-	R88D-1SN10H-ECT
	2 kW	R88M-1L2K030T-	R88D-1SN20H-ECT
3-phase 200 VAC	3 kW	R88M-1L3K030T-	R88D-1SN30H-ECT
	4 kW	R88M-1L4K030T-	
	4.7 kW	R88M-1L4K730T-	- H86D-13103311-EC1
	750 W	R88M-1L75030C-	R88D-1SN10F-ECT
	1 kW	R88M-1L1K030C-	R88D-1SN10F-ECT
3-phase 400 VAC	1.5 kW	R88M-1L1K530C-	R88D-1SN15F-ECT
	2 kW	R88M-1L2K030C-	R88D-1SN20F-ECT
	3 kW	R88M-1L3K030C-	R88D-1SN30F-ECT
	4 kW	R88M-1L4K030C-	
	5 kW	R88M-1L5K030C-	

2,000-r/min Servomotors and Servo Drives

Main circuit power supply voltage	Servomotor rated output	Servomotor	Servo Drive
Single-phase/3-phase 200 VAC	1.5 kW	R88M-1M1K520T-	R88D-1SN15H-ECT
	1 kW	R88M-1M1K020T-	R88D-1SN10H-ECT
3-phase 200 VAC	2 kW	R88M-1M2K020T-	R88D-1SN20H-ECT
	3 kW	R88M-1M3K020T-	R88D-1SN30H-ECT
3-phase 400 VAC	400 W	R88M-1M40020C-	R88D-1SN06F-ECT
	600 W	R88M-1M60020C-□	R88D-1SN06F-ECT
	1 kW	R88M-1M1K020C-	R88D-1SN10F-ECT
	1.5 kW	R88M-1M1K520C-	R88D-1SN15F-ECT
	2 kW	R88M-1M2K020C-	R88D-1SN20F-ECT
	3 kW	R88M-1M3K020C-□	R88D-1SN30F-ECT

1,500-r/min Servomotors and Servo Drives

Main circuit power supply voltage	Servomotor rated output	Servomotor	Servo Drive	
	4 kW	R88M-1M4K015T-		
	5 kW	R88M-1M5K015T-	H00D-13N3311-EC1	
3-phase 200 VAC	7.5 kW	R88M-1M7K515T-	R88D-1SN75H-ECT	
	11 kW	R88M-1M11K015T-		
	15 kW	R88M-1M15K015T-	H00D-1311301-201	
	4 kW	R88M-1M4K015C-□		
3-phase 400 VAC	5.5 kW	R88M-1M5K515C-	H00D-1310331-EC1	
	7.5 kW	R88M-1M7K515C-	R88D-1SN75F-ECT	
	11 kW	R88M-1M11K015C-		
	15 kW	R88M-1M15K015C-		

1,000-r/min Servomotors and Servo Drives

Main circuit power supply voltage	Servomotor rated output	Servomotor	Servo Drive
3-phase 200 VAC	900 W	R88M-1M90010T-	R88D-1SN10H-ECT
	2 kW	R88M-1M2K010T-	R88D-1SN20H-ECT
	3 kW	R88M-1M3K010T-	R88D-1SN30H-ECT
3-phase 400 VAC	900 W	R88M-1M90010C-□	R88D-1SN10F-ECT
	2 kW	R88M-1M2K010C-	R88D-1SN20F-ECT
	3 kW	R88M-1M3K010C-□	R88D-1SN30F-ECT

Servomotor and Decelerator Combinations

Backlash:3 Arcminutes Max.

3,000-r/min Servomotors and Decelerators

Sarvamatar madals *	Reduction ratio				
Servomotor models *	1/5	1/11	1/21	1/33	1/45
R88M-1M05030□			R88G-HPG	R88G-HPG 14A33050B□	R88G-HPG 14A45050B□
R88M-1M10030□	R88G-HPG 11B05100B□	R88G-HPG 14A11100B□	14A21100B□	R88G-HPG 20A33100B□	R88G-HPG 20A45100B□
R88M-1M20030□	R88G-HPG 14A05200B□	R88G-HPG 14A11200B□	R88G-HPG 20A21200B□	R88G-HPG 20A33200B□	R88G-HPG 20A45200B□
R88M-1M40030□	R88G-HPG 14A05400B□	R88G-HPG 20A11400B□	R88G-HPG 20A21400B□	R88G-HPG 32A33400B□	R88G-HPG 32A45400B□
R88M-1M75030□ (200 VAC)	R88G-HPG 20A05750B□	R88G-HPG 20A11750B□	R88G-HPG 32A21750B□	R88G-HPG 32A33750B□	R88G-HPG 32A45750B□
R88M-1L75030□ (400 VAC)	R88G-HPG	R88G-HPG R88G-HPG	R88G-HPG 32A211K5B□	R88G-HPG 32A33600SB□	B88G-HPG
R88M-1L1K030					50A451K5B
R88M-1L1K530	32A052K0B	32A112K0B		R88G-HPG	
R88M-1L2K030			R88G-HPG 50A212K0B□	50A332K0BL	
R88M-1L3K030	R88G-HPG 32A053K0B□	R88G-HPG 50A113K0B□	R88G-HPG 50A213K0B□		
R88M-1L4K030□	R88G-HPG 32A054K0B□	R88G-HPG			
R88M-1L4K730□ R88M-1L5K030□	R88G-HPG 32A054K0B□	50A115K0B□			

*You cannot use a Servomotor with a key and tap (model numbers with -S2 at the end) in combination with a Decelerator.

2,000-r/min Servomotors and Decelerators

Convometor modele *	Reduction ratio						
Servomotor models *	1/5	1/11	1/21	1/25	1/33	1/45	
R88M-1M40020□ (400 VAC)	R88G-HPG	R88G-HPG 32A112K0B□	R88G-HPG 32A211K5B□		R88G-HPG 32A33600SB□	R88G-HPG 32A45400SB□	
R88M-1M60020□ (400 VAC)	32A052K0B□					R88G-HPG 50A451K5B□	
R88M-1M1K020□		R88G-HPG	R88G-HPG 32A211K0SB□		- R88G-HPG 50A332K0SB□	R88G-HPG 50A451K0SB□	
R88M-1M1K520	32A053K0B	32A112K0SB	R88G-HPG				
R88M-1M2K020			50A213K0B				
R88M-1M3K020□	R88G-HPG 32A054K0B□	R88G-HPG 50A115K0B□	R88G-HPG 50A213K0SB□	R88G-HPG 65A253K0SB□			

* You cannot use a Servomotor with a key and tap (model numbers with -S2 at the end) in combination with a Decelerator.

1,500-r/min Servomotors and Decelerators

Servomotor models *	Reduction ratio					
	1/5	1/11	1/12	1/21	1/25	
R88M-1M4K015□	R88G-HPG 50A055K0SB□	R88G-HPG 50A115K0SB□		R88G-HPG 65A205K0SB□	R88G-HPG 65A255K0SB□	
R88M-1M5K□15□	R88G-HPG 50A054K5TB□		R88G-HPG 65A127K5SB□	R88G-HPG 65A204K5TB□		

1,000-r/min Servomotors and Decelerators

Converse to a modele th	Reduction ratio						
Servomotor models *	1/5	1/11	1/21	1/25	1/33	1/45	
R88M-1M90010□	R88G-HPG 32A05900TB□	R88G-HPG 32A11900TB□		R88G-HPG 50A21900TB□		R88G-HPG 50A33900TB□	
R88M-1M2K010	R88G-HPG 32A052K0TB□	R88G-HPG 50A112K0TB□		R88G-HPG 50A212K0TB□	R88G-HPG		
R88M-1M3K020□	R88G-HPG 50A055K0SB□	R88G-HPG 50A115K0SB□	R88G-HPG 65A205K0SB□		65A255K0SB□		

* You cannot use a Servomotor with a key and tap (model numbers with -S2 at the end) in combination with a Decelerator.

Backlash:15 Arcminutes Max.

3,000-r/min Servomotors and Decelerators

Sarvamatar models *	Reduction ratio					
Servomotor models 🕈	1/5	1/9	1/15	1/25		
R88M-1M05030						
R88M-1M10030		Roog-VRAPU9D100CJ	ROOG-VRAF ISB 100CJ	1000-VIXI 23010003		
R88M-1M20030	R88G-VRXF05B200CJ	R88G-VRXF09C200CJ	R88G-VRXF15C200CJ	R88G-VRXF25C200CJ		
R88M-1M40030	R88G-VRXF05C400CJ	R88G-VRXF09C400CJ	R88G-VRXF15C400CJ	R88G-VRXF25C400CJ		
R88M-1M75030 (200 VAC)	R88G-VRXF05C750CJ	R88G-VRXF09D750CJ	R88G-VRXF15D750CJ	R88G-VRXF25D750CJ		

* You cannot use a Servomotor with a key and tap (model numbers with -S2 at the end) in combination with a Decelerator.

Cable Connection Configuration

- Select an appropriate cable for the Servomotor.
- Some motor power cables have two cable versions: version 1.0 and version 1.1. The cable version can be checked on the model number label.
 - Version 1.0: There is no version indicated on the model number label.
 - Version 1.1: "Ver. 1.1" is indicated on the model number label.
- Use a Servo Drive unit version 1.2 or earlier with 20 m or less of motor power cable. For the combination of a Servo Drive and a motor power cable, see *Combinations of Unit Versions and Motor Power Cables* on page 18.

Refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT® Communications User's Manual (Cat.No.I586) for details.

Precautions for Correct Use

The regulations for cables differ according to the country in use. (The regulations can also be different in the same country according to the region or where the Servomotors are installed.) Therefore, be sure to check to the respective certificate institution for a cable that conforms to the regulations of each country.

Encoder Cables

Connected to	Model	Connect	tion configuration and external dimension	ns [mm]
100 V and 200 V: 3,000-r/min Servomotors of 50 W, 100 W, 200 W, 400 W, and 750 W	Standard Cable R88A-CR1A□□□C The empty boxes in the model number are for the cable length. (3 to 20 m: 5.3 mm dia. 30 to 50 m: 6.0 mm dia.)	Servo Drive side connector Connector model Receptacle: 3E206-0100KV (3M) Shell kit: 3E306-3200-008 (3M)		Servomotor side connector Angle clamp model JN6FR07SM1 (Japan Aviation Electronics) Connector pin model LY10-C1-A1-10000 (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 1 kW to 3 kW, 2,000-r/min Servomotors, and 1,000-r/min Servomotors 400 V: 3,000-r/min Servomotors of 3 kW or less, 2,000-r/min Servomotors, and 1,000-r/min Servomotors	Standard Cable R88A-CR1B□□N The empty boxes in the model number are for the cable length. (6.0 mm dia.)	Servo Drive side connector Connector model Receptacle: 3E206-0100KV (3M) Shell kit: 3E306-3200-008 (3M)		Servomotor side connector Straight plug model JN2DS10SL1-R (Japan Aviation Electronics) Contact model JN1-22-22S-10000 (Japan Aviation Electronics)
200 V and 400 V: 3000-r/min Servomotors of 4 kW or more 1500-r/min Servomotors	Standard Cable R88A-CR18□□□V The empty boxes in the model number are for the cable length. (6.0 mm dia.)	Servo Drive side connector Connector model Receptacle: 3E206-0100KV (3M) Shell kit: 3E306-3200-008 (3M)		Servomotor side connector Straight plug model JN2VDS10SL1 (Japan Aviation Electronics) Contact model JN2V-22-22S-10000 (Japan Aviation Electronics)
100 V and 200 V: 3,000-r/min Servomotors of 50 W, 100 W, 200 W, 400 W and 750 W	Flexible Cable R88A-CR1A□□CF The empty boxes in the model number are for the cable length. (3 to 20 m: 5.3 mm dia. 30 to 50 m: 6.0 mm dia.)	Servo Drive side connector Connector model Receptacle: 3E206-0100KV (3M) Shell kit: 3E306-3200-008 (3M)		Servomotor side connector Angle clamp model JN6FR07SM1 Connector pin model LY10-C1-A1-10000 (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 1 kW to 3 kW, 2,000-r/min Servomotors, and 1,000-r/min Servomotors 400 V: 3,000-r/min Servomotors of 3 kW or less, 2,000-r/min Servomotors, and 1,000-r/min Servomotors	Flexible Cable R88A-CR1BDDDNF The empty boxes in the model number are for the cable length. (6.0 mm dia.)	Servo Drive side connector Connector model Receptacle: 3E206-0100KV (3M) Shell kit: 3E306-3200-008 (3M)		Servomotor side connector Straight plug model JN2DS10SL1-R (Japan Aviation Electronics) Contact model JN1-22-22S-10000 (Japan Aviation Electronics)
200 V and 400 V: 3000-r/min Servomotors of 4 kW or more 1500-r/min Servomotors	Flexible Cable R88A-CR1B□□□VF The empty boxes in the model number are for the cable length. (6.0 mm dia.)	Servo Drive side connector Connector model Receptacle: 3E206-0100KV (3M) Shell kit: 3E306-3200-008 (3M)		Servomotor side connector Straight plug model JN2VDS10SL1 (Japan Aviation Electronics) Contact model JN2V-22-22S-10000 (Japan Aviation Electronics)

Note: Cable length: 3 m, 5 m, 10 m, 15 m, 20 m, 30 m, 40 m, 50 m

The empty boxes in the model number are put as follows: 3 m = 003, 5 m = 005, 10 m = 010.

Power Cables without Brake Wire

Connected to	Model	Connection configuration and external dim	ensions [mm]
100 V and 200 V: 3,000-r/min Servomotors of 100 W, 200 W, 400 W, and 750 W	Standard Cable R88A-CA1A□□S The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 6.8 mm dia.) (Ver.1.1: 7.2 mm dia.)	CT 150	Note: 1. Use the R88A-CN111A Power Connector/Socket Contact (Omron) for this cable. Note: 2. This drawing shows the cable version 1.1. For the drawing of the cable version 1.0, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT® Communications User's Manual (Cat. No. 1586).
200 V: 3,000-r/min Servomotors of 1 kW, 2,000-r/min Servomotors of 1 kW, and 1,000-r/min Servomotors of 900 W	Standard Cable R88A-CA1BDDS The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 10.8 mm dia.) (Ver.1.1: 13.3 mm dia.)	60	Servomotor side connector Connector JL10-6A20-4SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 1.5 kW and 2,000-r/min Servomotors of 1.5 kW 400 V: 3,000-r/min Servomotors of 750 W, 1 kW, 1.5 kW, and 2 kW 2,000-r/min Servomotors of 400 W, 600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W	Standard Cable R88A-CA1C□□S The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 10.8 mm dia.) (Ver.1.1: 13.3 mm dia.)		Servomotor side connector Connector JL10-6A20-4SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 2 kW and 3 kW 2,000-r/min Servomotors of 2 kW and 3 kW 1,000-r/min Servomotors of 2 kW 3,000-r/min Servomotors of 3 kW 2,000-r/min Servomotors of 3 kW 1,000-r/min Servomotors of 2 kW and 3 kW	Standard Cable R88A-CA1E S The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 12.0 mm dia.) (Ver.1.1: 15.0 mm dia.)		Servomotor side connector Connector JL10-6A22-22SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 1,000-r/min Servomotors of 3 kW	Standard Cable R88A-CA1FDDS The empty boxes in the model number are for the cable length. *1 (14.5 mm dia.)		Servomotor side connector Connector JL10-6A22-22SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(14)-R (Japan Aviation Electronics)
100 V and 200 V: 3,000-r/min Servomotors of 100 W, 200 W, 400 W, and 750 W	Flexible Cable R88A-CA1ADDSF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 6.8 mm dia.) (Ver.1.1: 7.2 mm dia.)	©D 150 60 (80) Ferrite core E04SR301334 (SEIWA ELECTRIC MFG CO. Ltd) Two turns on the core	Note: 1. Use the R88A-CN111A Power Connector/Socket Contact (Omron) for this cable. Note: 2. This drawing shows the cable version 1.1. For the drawing of the cable version 1.0, refer to the AC Servomotors/Servo Drives 1S-series with Built-in EtherCAT® Communications User's Manual (Cat. No. 1586).
200 V: 3,000-r/min Servomotors of 1 kW, 2,000-r/min Servomotors of 1 kW, and 1,000-r/min Servomotors of 900 W	Flexible Cable R88A-CA1BDDSF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 10.8 mm dia.) (Ver.1.1: 15.3 mm dia.)	60 (80) E04SR301334 (SEIWA Ferrite core ELECTRIC MFG CO. Ltd)	Servomotor side connector Connector JL10-6A20-4SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 1.5 kW 2,000-r/min Servomotors of 1.5 kW 400 V: 3,000-r/min Servomotors of 750 W, 1 kW, 1.5 kW, and 2 kW 2,000-r/min Servomotors of 400 W, 600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W	Flexible Cable R88A-CA1C□□SF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 10.8 mm dia.) (Ver.1.1: 15.3 mm dia.)		Servomotor side connector Connector JJL10-6A20-4SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 2 kW and 3 kW 2,000-r/min Servomotors of 2 kW and 3 kW 1,000-r/min Servomotors of 2 kW 400 V: 3,000-r/min Servomotors of 3 kW 2,000-r/min Servomotors of 3 kW 1,000-r/min Servomotors of 2 kW and 3 kW	Flexible Cable R88A-CA1E□□SF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 12.0 mm dia.) (Ver.1.1: 15.5 mm dia.)		Servomotor side connector Connector JL10-6A22-22SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)

Connected to	Model	Connection configuration and external dim	ensions [mm]
200 V: 1,000-r/min Servomotors of 3 kW	Flexible Cable R88A-CA1F SF The empty boxes in the model number are for the cable length. *1 (14.5 mm dia.)		Servomotor side connector Connector JL10-6A22-22SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(14)-R (Japan Aviation Electronics)
200V: 3000 r/min Servomotors of 4 kW, 4.7 kW 1500 r/min Servomotors of 4 kW, 5 kW 400V: 3000 r/min Servomotors of 4 kW, 5 kW 1500 r/min Servomotors of 4 kW, 5.5 kW and 7.5 kW	Flexible Cable R88A-CA1HSF The empty boxes in the model number are for the cable length. *2 (15 mm dia.)		Servomotor side connector M23 Series (Phoenix Contact) Connector 1621517 Contact Power: 1621578
400 V: 1500-r/min Servomotors of 11 kW and 15 kW	Flexible Cable R88A-CA1J□□□SF The empty boxes in the model number are for the cable length. * 2 (17.3 mm dia.)		Servomotor side connector M40 Series (Phoenix Contact) Connector 1623327 Contact Power: 1623379
200 V: 1500-r/min Servomotors of 7.5 kW,11 kW and 15 kW	Flexible Cable R88A-CA1K□□□SF The empty boxes in the model number are for the cable length. *2 (23.2 mm dia.)		Servomotor side connector M40 Series (Phoenix Contact) Connector 1623328 Contact Power: 1623381

Note: The empty boxes in the model number are put as follows: 3 m = 003, 5 m = 005, 10 m = 010. ***1.** Cable length: 3 m, 5 m, 10 m, 15 m, 20 m, 30 m, 40 m, 50 m ***2.** Cable length: 3 m, 5 m, 10 m, 15 m, 20 m

Power Cables with Brake Wire

Connected to	Model	Connection configuration and external dimension	ions [mm]
200 V: 3,000-r/min Servomotors of 1 kW 2,000-r/min Servomotors of 1 kW 1,000-r/min Servomotors of 900 W	Standard Cable R88A-CA1BB The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 12.5 mm dia.) (Ver.1.1: 13.3 mm dia.)	Ferrule 216-201 (Ver.1.0) Ferrule 216-201 (Ver.1.1) (WAGO) 160	Servomotor side connector Connector JL10-6A20-18SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 1.5 kW 2,000-r/min Servomotors of 1.5 kW	Standard Cable R88A-CA1C□□B The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 12.5 mm dia.) (Ver.1.1: 13.3 mm dia.)	Ferrule 216-201 (Ver.1.0) Ferrule 216-201 (Ver.1.1) (WAGO)	Servomotor side connector Connector JL10-6A20-18SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
400 V: 3,000-r/min Servomotors of 750 W, 1 kW, 1.5 kW, and 2 kW 2,000-r/min Servomotors of 400 W, 600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W	Standard Cable R8&A-CA1D B The empty boxes in the model number are for the cable length. *1 (12.5 mm dia.)	Ferrule 216-201 (WAGO)	Servomotor side connector Connector JL10-6A24-11SE-EB (Japan Aviation Electronics) Clamp JL04-2428CK(14)-R (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 2 kW and 3 kW 2,000-r/min Servomotors of 2 kW and 3 kW 1,000-r/min Servomotors of 2 kW 400 V: 3,000-r/min Servomotors of 3 kW 2,000-r/min Servomotors of 2 kW and 3 kW	Standard Cable R88A-CA1E□□B The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 14.0 mm dia.) (Ver.1.1: 15.0 mm dia.)	Ferrule 216-201 (Ver.1.0) Ferrule 216-2013 (Ver.1.1) (WAGO)	Servomotor side connector Connector JL10-6A24-11SE-EB (Japan Aviation Electronics) Clamp JL04-2428CK(14)-R (Ver.1.0) JL04-2428CK(17)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 1,000-r/min Servomotors of 3 kW	Standard Cable R88A-CA1F□□B The empty boxes in the model number are for the cable length. * 1 (17.0 mm dia.)	Ferrule 216-201	Servomotor side connector Connector JN6FS05SJ2 (Japan Aviation Electronics) Socket contact ST-JN5-S-C1B-2500 (Japan Aviation Electronics)

Connected to	Model	Connection configuration and external dimensi	ons [mm]
200 V: 3,000-r/min Servomotors of 1 kW 2,000-r/min Servomotors of 1 kW 1,000-r/min Servomotors of 900 W	Flexible Cable R88A-CA1B B BF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 12.5 mm dia.) (Ver.1.1: 14.7 mm dia.)	Ferrule 216-201 (Ver.1.0) Ferrule 216-201 (Ver.1.1) (WAGO)	Servomotor side connector Connector JL10-6A20-18SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 1.5 kW 2,000-r/min Servomotors of 1.5 kW	Flexible Cable R88A-CA1C BF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 12.5 mm dia.) (Ver.1.1: 14.7 mm dia.)	Ferrule 216-201 (Ver.1.0) Ferrule 216-201J (Ver.1.1) (WAGO)	Servomotor side connector Connector JL10-6A20-18SE-EB (Japan Aviation Electronics) Clamp JL04-2022CK(12)-R (Ver.1.0) JL04-2022CK(14)-R (Ver.1.1) (Japan Aviation Electronics)
400 V: 3,000-r/min Servomotors of 750 W, 1 kW, 1.5 kW, and 2 kW 2,000-r/min Servomotors of 400 W, 600 W, 1 kW, 1.5 kW, and 2 kW 1,000-r/min Servomotors of 900 W	Flexible Cable R88A-CA1DDDDBF The empty boxes in the model number are for the cable length. * 1 (12.5 mm dia.)	Ferrule 216-201 (WAGO)	Servomotor side connector Connector JL10-6A24-11SE-EB (Japan Aviation Electronics) Clamp JL04-2428CK(14)-R (Japan Aviation Electronics)
200 V: 3,000-r/min Servomotors of 2 kW and 3 kW 2,000-r/min Servomotors of 2 kW and 3 kW 1,000-r/min Servomotors of 2 kW 400 V: 3,000-r/min Servomotors of 3 kW 1,000-r/min Servomotors of 2 kW and 3 kW	Flexible Cable R88A-CA1E□□□BF The empty boxes in the model number are for the cable length. *1 (Ver.1.0: 14.2 mm dia.) (Ver.1.1: 15.0 mm dia.)	Ferrule 216-201 (Ver.1.0) Ferrule 216-201J (Ver.1.1) (WAGO) 180	Servomotor side connector Connector JL10-6A24-11SE-EB (Japan Aviation Electronics) Clamp JL04-2428CK(14)-R (Ver.1.0) JL04-2428CK(17)-R (Ver.1.1) (Japan Aviation Electronics)
200 V: 1,000-r/min Servomotors of 3 kW	Flexible Cable R88A-CA1F□□□BF The empty boxes in the model number are for the cable length. *1 (17.0 mm dia.)	Ferrule 216-201 (WAGO)	Servomotor side connector Connector JL10-6A24-11SE-EB (Japan Aviation Electronics) Clamp JL04-2428CK(17)-R (Japan Aviation Electronics)
200 V: 3000 r/min Servomotors of 4 kW, 4.7 kW 1500 r/min Servomotors of 4 kW, 5 kW 400 V: 3000 r/min Servomotors of 4 kW, 5 kW 1500 r/min Servomotors of 4 kW, 5.5 kW and 7.5 kW	Flexible Cable R88A-CA1H□□BF The empty boxes in the model number are for the cable length. * 2 (15 mm dia.)	Ferrule 966067-2 (TE) 420	Servomotor side connector M23 Series (Phoenix Contact) Connector 1621517 Contact Power: 1621578 Brake: 1618251
400 V: 1500-r/min Servomotors of 11 kW and 15 kW	Flexible Cable R88A-CA1J□□BF The empty boxes in the model number are for the cable length. *2 (17.3 mm dia.)	Ferrule 966067-2	Servomotor side connector M40 Series (Phoenix Contact) Connector 1623327 Contact Power: 1623379 Brake: 1623604
200 V: 1500-r/min Servomotors of 7.5 kW, 11 kW and 15 kW	Flexible Cable R88A-CA1K□□BF The empty boxes in the model number are for the cable length. *2 (23.2 mm dia.)	Ferrule 966067-2 (TE) 320	Servomotor side connector M40 Series (Phoenix Contact) Connector 1623328 Contact Power: 1623381 Brake: 1623604

Note: The empty boxes in the model number are put as follows: 3 m = 003, 5 m = 005, 10 m = 010. ***1.** Cable length: 3 m, 5 m, 10 m, 15 m, 20 m, 30 m, 40 m, 50 m ***2.** Cable length: 3 m, 5 m, 10 m, 15 m, 20 m

Brake Cables

Connected to	Model	Connection configuration and external dimensio	ns [mm]
100 V and 200 V: 3,000-r/min Servomotors of 100 W, 200 W, 400 W, and 750 W	Standard Cable R88A-CA1A□□B The empty boxes in the model number are for the cable length. (5.0 mm dia.)	Ferrule 216-201 (WAGO)	Servomotor side connector Connector JN6FR02SM1 (Japan Aviation Electronics) Socket contact LY10-C1-A1-10000 (Japan Aviation Electronics)
100 V and 200 V: 3,000-r/min Servomotors of 100 W, 200 W, 400 W, and 750 W	Flexible Cable R88A-CA1A□□BF The empty boxes in the model number are for the cable length. (5.0 mm dia.)	Ferrule 216-201 (WAGO)	Servomotor side connector Connector JN6FR02SM1 (Japan Aviation Electronics) Socket contact LY10-C1-A1-10000 (Japan Aviation Electronics)

Note: Cable length: 3 m, 5 m, 10 m, 15 m, 20 m, 30 m, 40 m, 50 m

The empty boxes in the model number are put as follows: 3 m = 003, 5 m = 005, 10 m = 010.

Power Cables without Brake Wire (Non-load side, Flexible Cable)



The empty boxes in the model number are put as follows: 3 m = 003, 5 m = 005, 10 m = 010.

2. This drawing shows the cable version 1.1. For the drawing of the cable version 1.0, refer to the AC Servomotors Servo Drives 1S-series with Built-in EtherCAT[®] Communications User's Manual (Cat. No. 1586).

Brake Cables (Non-load side, Flexible Cable)



Note: Cable length: 3 m, 5 m, 10 m, 15 m, 20 m, 30 m, 40 m, 50 m

The empty boxes in the model number are put as follows: 3 m = 003, 5 m = 005, 10 m = 010.

Extension Power Cable

Connected to	Model	Connec	tion configuration and external dimension	s [mm]
200 V: 3000 r/min Servomotors of 4 kW, 4.7 kW 1500 r/min Servomotors of 4 kW, 5 kW 400 V: 3000 r/min Servomotors of 4 kW, 5 kW 1500 r/min Servomotors of 4 kW, 5.5 kW and 7.5 kW	Flexible Cable R88A-CA1HE□□BF The empty boxes in the model number are for the cable length. (15 mm dia.)	Servo Drive side connector M23 Series (Phoenix Contact) Connector 1621549 Contact Power: 1621581 Brake: 1618256		Servomotor side connector M23 Series (Phoenix Contact) Connector 1621517 Contact Power: 1621578 Brake: 1618251
400 V: 1500-r/min Servomotors of 11 kW and 15 kW	Flexible Cable R88A-CA1JE□□BF The empty boxes in the model number are for the cable length. (17.3 mm dia.)	Servo Drive side connector M40 Series (Phoenix Contact) Connector 1623357 Contact Power: 1623384 Brake: 1623611		Servomotor side connector M40 Series (Phoenix Contact) Connector 1623327 Contact Power: 1623379 Brake: 1623604
200 V: 1500-r/min Servomotors of 7.5 kW, 11 kW and 15kW	Flexible Cable R88A-CA1KE□□BF The empty boxes in the model number are for the cable length. (23.2 mm dia.)	Servo Drive side connector M40 Series (Phoenix Contact) Connector 1623358 Contact Power: 1623386 Brake: 1623611		Servomotor side connector M40 Series (Phoenix Contact) Connector 1623328 Contact Power: 1623381 Brake: 1623604

Note: Cable length: 10 m, 20 m

The empty boxes in the model number are put as follows: 10 m = 10, 20 m = 20.

Combinations of Motor Power Cables and Extension Power Cables

The table below lists the combinations of cables that can be used to extend the motor power cable for a servomotor of 4 kW or more to more than 20 m.



	Leng	th (m)		
Total	Motor power cable	Extension cable 1	Extension cable 2	Combination
3	3			Motor power cable only
5	5			Motor power cable only
10	10			Motor power cable only
15	15			Motor power cable only
20	20			Motor power cable only
30	20	10		Motor power cable + extension cable 1
40	20	20		Motor power cable + extension cable 1
50	20	10	20	Motor power cable + extension cable 1 + extension cable 2 *

* A 20 m extension cable 1 and a 10 m extension cable 2 can also be used.

Related Manuals

English Man.No.	Japanese Man.No.	Model	Manual name	
1586	SBCE-377	R88M-1□/R88D-1SN□-ECT	AC Servomotors/Servo Drives 1S-Series with EtherCAT Communications User's Manual	
W535	SBCA-418	NX701-□□□	NX-series CPU Unit User's Manual (Hardware)	
W593	SBCA-462	NX102-000	NX-series NX102 CPU Unit Hardware User's Manual	
W578	SBCA-448	NX1P2-00000 NX1P2-000001	NX-series NX1P2 CPU Unit User's Manual (Hardware)	
W500	SBCA-466	NJ501-000 NJ301-000 NJ101-000	NJ-series CPU Unit User's Manual (Hardware)	
W501	SBCA-467	NX701-000 NJ501-000 NJ301-000 NJ101-000	NJ-series / NX-series CPU Unit User's Manual (Software)	
W507	SBCE-433	NX701-000 NJ501-000 NJ301-000 NJ101-000	NJ-series / NX-series CPU Unit User's Manual (Motion Control)	
W556	SBCA-434	NY512-000	NY-series IPC Machine Controller Industrial Box PC Hardware User's Manual	
W557	SBCA-435	NY532-□□□	NY-series IPC Machine Controller Industrial Panel PC Hardware User's Manual	
W558	SBCA-436	NY532-000 NY512-000	NY-series IPC Machine Controller Industrial Panel PC / Industrial Box PC Software User's Manual	
W559	SBCE-379	NY532-000 NY512-000	NY-series IPC Machine Controller Industrial Panel PC / Industrial Box PC Motion Control User's Manual	
Z930	SGFM-710	NX-SL	NX-series Safety Control Unit User's Manual	
Z931	SGFM-711	NX-SLOOO	NX-series Safety Control Unit Instructions Reference Manual	
W504	SBCA-470	SYSMAC-SE2	Sysmac Studio Version 1 Operation Manual	
1589	SBCE-401	SYSMAC-SE2	Sysmac Studio Drive Function Operation Manual	
W487	SBCE-359	CJ1W-NC281 CJ1W-NC481 CJ1W-NC881 CJ1W-NCF81 CJ1W-NC482 CJ1W-NC882 CJ1W-NCF82	CJ-series Position Control Unit Operation Manual	
Z922	SJLB-306	G9SP-N10S G9SP-N10D G9SP-N20S	G9SP Series Safety Controller Operation Manual	

AC Servo motors selection for the entire machine

- User can size all axes in one project with the corresponded Sysmac controller.
- Pre-defined system can be used for common applications.
- Selection of optimized drive, motor and gearbox combination.
- Multiple views are not required: design, adjust and validate at a glance.
- Import sizing file directly to Sysmac Studio for reducing the machine development time.

Quick sizing and selection of AC servo motors

- · High variety of mechanical system
- Import CAM from Sysmac Studio
- Kinematics chain architecture includes motor, reducer, loads and motion profile.
- Adjustments can be done in one view and results autorefreshed.



Re-use work done during design phase

- Export sizing file result.
- Import sizing file result in Sysmac Studio.
- EtherCAT configuration, axes settings and drives parameters will be created automatically



Compatible models

1S series	EtherCAT Communications and Safety Functionality	R88D-1SAN□-ECT
1S series	EtherCAT Communications	R88D-1SN□-ECT
G5 series	EtherCAT Communications for Position Control	R88D-KN□-ECT
G5 series	EtherCAT Communications (Linear Motor Type)	R88D-KN□-ECT-L
G5 series	MECHATROLINK-II Communications	R88D-KN□-ML2
G5 series	General-purpose Pulse Train or Analog Inputs	R88D-KT
G series	MECHATROLINK-II Communications	R88D-GN□-ML2
G series	General-purpose Pulse Train or Analog Inputs	R88D-GT

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