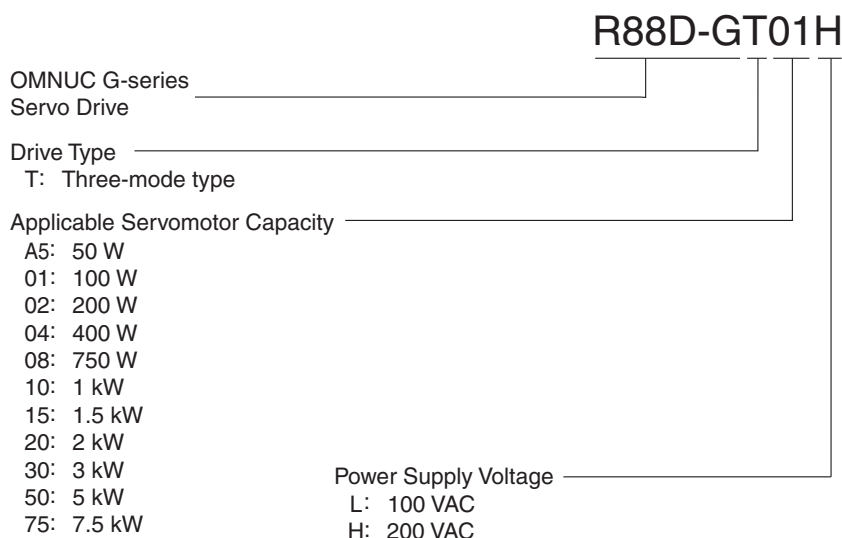


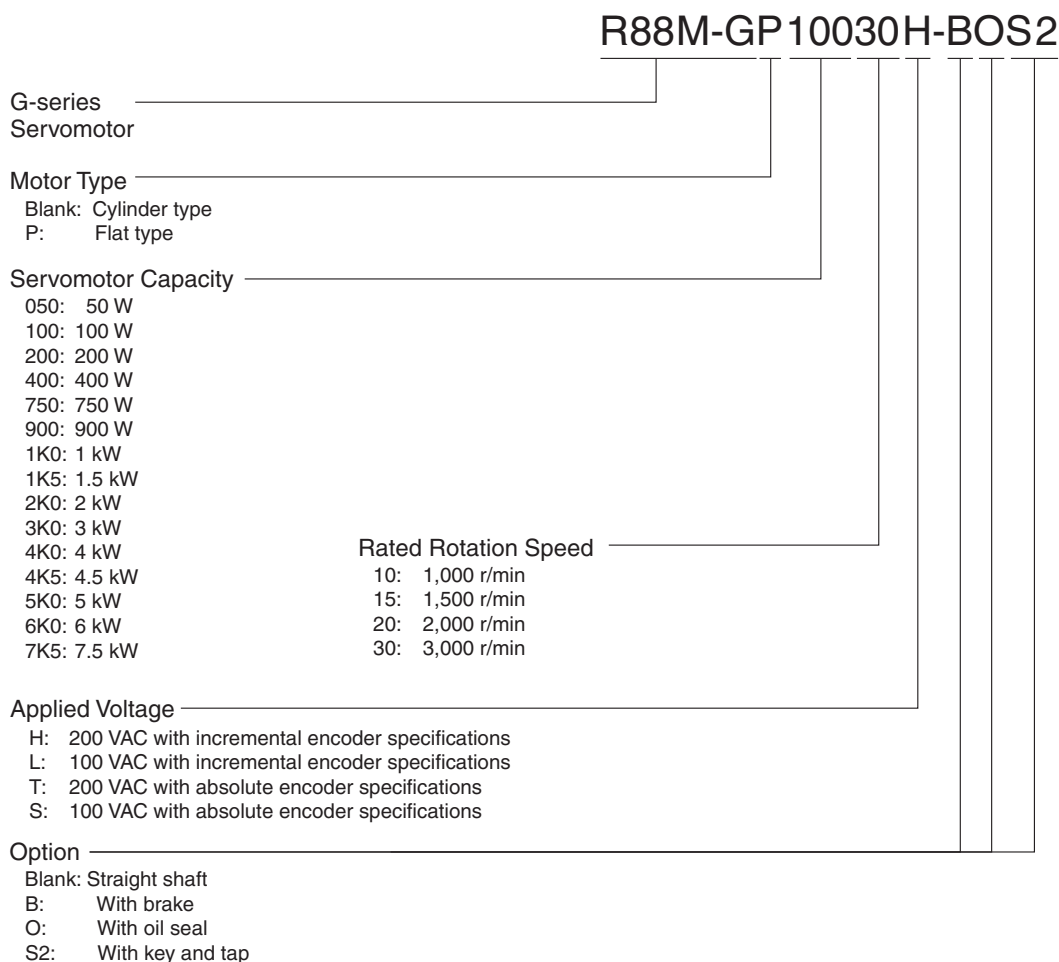
Interpreting Model Numbers

● Servo Driver Model Numbers

The model number provides information such as the Servo Drive type, the applicable Servomotor capacity, and the power supply voltage.



● Servomotor Model Numbers



Ordering Information

Servo Drives

Specifications		Model
Single-phase 100 VAC	50 W	R88D-GTA5L
	100 W	R88D-GT01L
	200 W	R88D-GT02L
	400 W	R88D-GT04L
Single-phase 200 VAC	50 W	R88D-GT01H
	100 W	
	200 W	R88D-GT02H
	400 W	R88D-GT04H
Single-phase/three-phase 200 VAC	750 W	R88D-GT08H
	1 kW	R88D-GT10H
	900 W	R88D-GT15H
	1 kW	
Three-phase 200 VAC	1.5 kW	R88D-GT50H
	2 kW	
	2 kW	
	3 kW	
	3 kW	R88D-GT75H
	4 kW	
	4.5 kW	
	5 kW	
	6 kW	R88D-GT75H
	7.5 kW	

Servomotors

INC 3,000-r/min Cylindrical Servomotors

Specifications			Model	
			Straight shaft	Straight shaft with key and tap
Without brake	100 V	50 W	R88M-G05030H	R88M-G05030H-S2
		100 W	R88M-G10030L	R88M-G10030L-S2
		200 W	R88M-G20030L	R88M-G20030L-S2
		400 W	R88M-G40030L	R88M-G40030L-S2
	200 V	50 W	R88M-G05030H	R88M-G05030H-S2
		100 W	R88M-G10030H	R88M-G10030H-S2
		200 W	R88M-G20030H	R88M-G20030H-S2
		400 W	R88M-G40030H	R88M-G40030H-S2
With brake	100 V	50 W	R88M-G05030H-B	R88M-G05030H-BS2
		100 W	R88M-G10030L-B	R88M-G10030L-BS2
		200 W	R88M-G20030L-B	R88M-G20030L-BS2
		400 W	R88M-G40030L-B	R88M-G40030L-BS2
	200 V	50 W	R88M-G05030H-B	R88M-G05030H-BS2
		100 W	R88M-G10030H-B	R88M-G10030H-BS2
		200 W	R88M-G20030H-B	R88M-G20030H-BS2
		400 W	R88M-G40030H-B	R88M-G40030H-BS2
	750 W	50 W	R88M-G75030H-B	R88M-G75030H-BS2
		100 W	R88M-G75030H-B	R88M-G75030H-BS2
		200 W	R88M-G75030H-B	R88M-G75030H-BS2
		400 W	R88M-G75030H-B	R88M-G75030H-BS2

Note: Models with oil seals are also available.

ABS/INC 3,000-r/min Cylindrical Servomotors

Specifications			Model	
			Straight shaft	Straight shaft with key and tap
Without brake	100 V	50 W	R88M-G05030T	R88M-G05030T-S2
		100 W	R88M-G10030S	R88M-G10030S-S2
		200 W	R88M-G20030S	R88M-G20030S-S2
	200 V	400 W	R88M-G40030S	R88M-G40030S-S2
		50 W	R88M-G05030T	R88M-G05030T-S2
		100 W	R88M-G10030T	R88M-G10030T-S2
		200 W	R88M-G20030T	R88M-G20030T-S2
		400 W	R88M-G40030T	R88M-G40030T-S2
		750 W	R88M-G75030T	R88M-G75030T-S2
		1 kW	R88M-G1K030T	R88M-G1K030T-S2
		1.5 kW	R88M-G1K530T	R88M-G1K530T-S2
		2 kW	R88M-G2K030T	R88M-G2K030T-S2
		3 kW	R88M-G3K030T	R88M-G3K030T-S2
		4 kW	R88M-G4K030T	R88M-G4K030T-S2
		5 kW	R88M-G5K030T	R88M-G5K030T-S2
With brake	100 V	50 W	R88M-G05030T-B	R88M-G05030T-BS2
		100 W	R88M-G10030S-B	R88M-G10030S-BS2
		200 W	R88M-G20030S-B	R88M-G20030S-BS2
		400 W	R88M-G40030S-B	R88M-G40030S-BS2
	200 V	50 W	R88M-G05030T-B	R88M-G05030T-BS2
		100 W	R88M-G10030T-B	R88M-G10030T-BS2
		200 W	R88M-G20030T-B	R88M-G20030T-BS2
		400 W	R88M-G40030T-B	R88M-G40030T-BS2
		750 W	R88M-G75030T-B	R88M-G75030T-BS2
		1 kW	R88M-G1K030T-B	R88M-G1K030T-BS2
		1.5 kW	R88M-G1K530T-B	R88M-G1K530T-BS2
		2 kW	R88M-G2K030T-B	R88M-G2K030T-BS2
		3 kW	R88M-G3K030T-B	R88M-G3K030T-BS2
		4 kW	R88M-G4K030T-B	R88M-G4K030T-BS2
		5 kW	R88M-G5K030T-B	R88M-G5K030T-BS2

Note: Models with oil seals are also available.

INC 3,000-r/min Flat Servomotors

Specifications			Model	
			Straight shaft	Straight shaft with key and tap
Without brake	100 V	100 W	R88M-GP10030L	R88M-GP10030L-S2
		200 W	R88M-GP20030L	R88M-GP20030L-S2
		400 W	R88M-GP40030L	R88M-GP40030L-S2
	200 V	100 W	R88M-GP10030H	R88M-GP10030H-S2
		200 W	R88M-GP20030H	R88M-GP20030H-S2
		400 W	R88M-GP40030H	R88M-GP40030H-S2
With brake	100 V	100 W	R88M-GP10030L-B	R88M-GP10030L-BS2
		200 W	R88M-GP20030L-B	R88M-GP20030L-BS2
		400 W	R88M-GP40030L-B	R88M-GP40030L-BS2
	200 V	100 W	R88M-GP10030H-B	R88M-GP10030H-BS2
		200 W	R88M-GP20030H-B	R88M-GP20030H-BS2
		400 W	R88M-GP40030H-B	R88M-GP40030H-BS2

Note: Models with oil seals are also available.

ABS/INC 3,000-r/min Flat Servomotors

Specifications			Model	
			Straight shaft	Straight shaft with key and tap
Without brake	100 V	100 W	R88M-GP10030S	R88M-GP10030S-S2
		200 W	R88M-GP20030S	R88M-GP20030S-S2
		400 W	R88M-GP40030S	R88M-GP40030S-S2
	200 V	100 W	R88M-GP10030T	R88M-GP10030T-S2
		200 W	R88M-GP20030T	R88M-GP20030T-S2
		400 W	R88M-GP40030T	R88M-GP40030T-S2
With brake	100 V	100 W	R88M-GP10030S-B	R88M-GP10030S-BS2
		200 W	R88M-GP20030S-B	R88M-GP20030S-BS2
		400 W	R88M-GP40030S-B	R88M-GP40030S-BS2
	200 V	100 W	R88M-GP10030T-B	R88M-GP10030T-BS2
		200 W	R88M-GP20030T-B	R88M-GP20030T-BS2
		400 W	R88M-GP40030T-B	R88M-GP40030T-BS2

Note: Models with oil seals are also available.

ABS/INC 2,000-r/min Cylindrical Servomotors

Specifications			Model	
			Straight shaft	Straight shaft with key and tap
Without brake	200 V	1 kW	R88M-G1K020T	R88M-G1K020T-S2
		1.5 kW	R88M-G1K520T	R88M-G1K520T-S2
		2 kW	R88M-G2K020T	R88M-G2K020T-S2
		3 kW	R88M-G3K020T	R88M-G3K020T-S2
		4 kW	R88M-G4K020T	R88M-G4K020T-S2
		5 kW	R88M-G5K020T	R88M-G5K020T-S2
		7.5 kW	R88M-G7K515T	R88M-G7K515T-S2
With brake	200 V	1 kW	R88M-G1K020T-B	R88M-G1K020T-BS2
		1.5 kW	R88M-G1K520T-B	R88M-G1K520T-BS2
		2 kW	R88M-G2K020T-B	R88M-G2K020T-BS2
		3 kW	R88M-G3K020T-B	R88M-G3K020T-BS2
		4 kW	R88M-G4K020T-B	R88M-G4K020T-BS2
		5 kW	R88M-G5K020T-B	R88M-G5K020T-BS2
		7.5 kW *	R88M-G7K515T-B	R88M-G7K515T-BS2

Note: 1. Models with oil seals are also available.

Note: 2. The rated rotation speed for 7.5-kW Servomotors is 1,500 r/min.

* UL:pending

ABS/INC 1,000-r/min Cylindrical Servomotors

Specifications			Model	
			Straight shaft	Straight shaft with key and tap
Without brake	200 V	900 W	R88M-G90010T	R88M-G90010T-S2
		2 kW	R88M-G2K010T	R88M-G2K010T-S2
		3 kW	R88M-G3K010T	R88M-G3K010T-S2
		4.5 kW	R88M-G4K510T	R88M-G4K510T-S2
		6 kW	R88M-G6K010T	R88M-G6K010T-S2
With brake	200 V	900 W	R88M-G90010T-B	R88M-G90010T-BS2
		2 kW	R88M-G2K010T-B	R88M-G2K010T-BS2
		3 kW	R88M-G3K010T-B	R88M-G3K010T-BS2
		4.5 kW	R88M-G4K510T-B	R88M-G4K510T-BS2
		6 kW *	R88M-G6K010T-B	R88M-G6K010T-BS2

Note: Models with oil seals are also available.

* UL:pending

● Decelerators

Backlash: 3 Arcminutes Max.

Decelerators for Cylindrical Servomotors

Specifications		Model
Motor capacity	Gear ratio	
50 W	1/5	R88G-HPG11A05100B
	1/9	R88G-HPG11A09050B
	1/21	R88G-HPG14A21100B
	1/33	R88G-HPG14A33050B
	1/45	R88G-HPG14A45050B
100 W	1/5	R88G-HPG11A05100B
	1/11	R88G-HPG14A11100B
	1/21	R88G-HPG14A21100B
	1/33	R88G-HPG20A33100B
	1/45	R88G-HPG20A45100B
200 W	1/5	R88G-HPG14A05200B
	1/11	R88G-HPG14A11200B
	1/21	R88G-HPG20A21200B
	1/33	R88G-HPG20A33200B
	1/45	R88G-HPG20A45200B
400 W	1/5	R88G-HPG14A05400B
	1/11	R88G-HPG20A11400B
	1/21	R88G-HPG20A21400B
	1/33	R88G-HPG32A33400B
	1/45	R88G-HPG32A45400B
750 W	1/5	R88G-HPG20A05750B
	1/11	R88G-HPG20A11750B
	1/21	R88G-HPG32A21750B
	1/33	R88G-HPG32A33750B
	1/45	R88G-HPG32A45750B

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

Note: 2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.
Example: R88G-HPG11A05100BJ

Backlash: 3 Arcminutes Max.

Decelerator for Flat Servomotors

Specifications		Model
Motor capacity	Gear ratio	
100 W	1/5	R88G-HPG11A05100PB
	1/11	R88G-HPG14A11100PB
	1/21	R88G-HPG14A21100PB
	1/33	R88G-HPG20A33100PB
	1/45	R88G-HPG20A45100PB
200 W	1/5	R88G-HPG14A05200PB
	1/11	R88G-HPG20A11200PB
	1/21	R88G-HPG20A21200PB
	1/33	R88G-HPG20A33200PB
	1/45	R88G-HPG20A45200PB
400 W	1/5	R88G-HPG20A05400PB
	1/11	R88G-HPG20A11400PB
	1/21	R88G-HPG20A21400PB
	1/33	R88G-HPG32A33400PB
	1/45	R88G-HPG32A45400PB

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

Note: 2. To order a Servomotor with a straight shaft with key, add "J" to the end of the model number, in the place indicated by the box.
Example: R88G-HPG11A05100BJ

Backlash: 15 Arcminutes Max.

Decelerators for Cylindrical Servomotors

Specifications		Model
Motor capacity	Gear ratio	
50 W	1/5	R88G-VRSF05B100CJ
	1/9	R88G-VRSF09B100CJ
	1/15	R88G-VRSF15B100CJ
	1/25	R88G-VRSF25B100CJ
	1/45	R88G-VRSF45B100CJ
100 W	1/5	R88G-VRSF05B100CJ
	1/9	R88G-VRSF09B100CJ
	1/15	R88G-VRSF15B100CJ
	1/25	R88G-VRSF25B100CJ
	1/45	R88G-VRSF45B100CJ
200 W	1/5	R88G-VRSF05B200CJ
	1/9	R88G-VRSF09C200CJ
	1/15	R88G-VRSF15C200CJ
	1/25	R88G-VRSF25C200CJ
	1/45	R88G-VRSF45C200CJ
400 W	1/5	R88G-VRSF05C400CJ
	1/9	R88G-VRSF09C400CJ
	1/15	R88G-VRSF15C400CJ
	1/25	R88G-VRSF25C400CJ
	1/45	R88G-VRSF45C400CJ
750 W	1/5	R88G-VRSF05C750CJ
	1/9	R88G-VRSF09D750CJ
	1/15	R88G-VRSF15D750CJ
	1/25	R88G-VRSF25D750CJ
	1/45	R88G-VRSF45D750CJ

Backlash: 15 Arcminutes Max.

Decelerators for Flat Servomotors

Specifications		Model
Motor capacity	Gear ratio	
100 W	1/5	R88G-VRSF05B100PCJ
	1/9	R88G-VRSF09B100PCJ
	1/15	R88G-VRSF15B100PCJ
	1/25	R88G-VRSF25B100PCJ
	1/45	R88G-VRSF45B100PCJ
200 W	1/5	R88G-VRSF05B200PCJ
	1/9	R88G-VRSF09C200PCJ
	1/15	R88G-VRSF15C200PCJ
	1/25	R88G-VRSF25C200PCJ
	1/45	R88G-VRSF45C200PCJ
400 W	1/5	R88G-VRSF05C400PCJ
	1/9	R88G-VRSF09C400PCJ
	1/15	R88G-VRSF15C400PCJ
	1/25	R88G-VRSF25C400PCJ
	1/45	R88G-VRSF45C400PCJ

● Accessories and Cables

Servomotor Power Cables (Standard Cables)

For Servomotor without brake

Specifications		Model
3,000-r/min Servomotors of 50 to 750 W, 3,000-r/min Flat Servomotors of 100 to 400 W	3 m	R88A-CAGA003S
	5 m	R88A-CAGA005S
	10 m	R88A-CAGA010S
	15 m	R88A-CAGA015S
	20 m	R88A-CAGA020S
	30 m	R88A-CAGA030S
	40 m	R88A-CAGA040S
	50 m	R88A-CAGA050S
3,000-r/min Servomotors of 1 to 1.5 kW, 2,000-r/min Servomotors of 1 to 1.5 kW, 1,000-r/min Servomotors of 900 W	3 m	R88A-CAGB003S
	5 m	R88A-CAGB005S
	10 m	R88A-CAGB010S
	15 m	R88A-CAGB015S
	20 m	R88A-CAGB020S
	30 m	R88A-CAGB030S
	40 m	R88A-CAGB040S
	50 m	R88A-CAGB050S
3,000-r/min Servomotors of 2 kW, 2,000-r/min Servomotors of 2 kW	3 m	R88A-CAGC003S
	5 m	R88A-CAGC005S
	10 m	R88A-CAGC010S
	15 m	R88A-CAGC015S
	20 m	R88A-CAGC020S
	30 m	R88A-CAGC030S
	40 m	R88A-CAGC040S
	50 m	R88A-CAGC050S
3,000-r/min Servomotors of 3 to 5 kW, 2,000-r/min Servomotors of 3 to 5 kW, 1,000-r/min Servomotors of 2 to 4.5 kW	3 m	R88A-CAGD003S
	5 m	R88A-CAGD005S
	10 m	R88A-CAGD010S
	15 m	R88A-CAGD015S
	20 m	R88A-CAGD020S
	30 m	R88A-CAGD030S
	40 m	R88A-CAGD040S
	50 m	R88A-CAGD050S
1,500-r/min Servomotors of 7.5 kW, 1,000-r/min Servomotors of 6 kW	3 m	R88A-CAGE003S
	5 m	R88A-CAGE005S
	10 m	R88A-CAGE010S
	15 m	R88A-CAGE015S
	20 m	R88A-CAGE020S
	30 m	R88A-CAGE030S
	40 m	R88A-CAGE040S
	50 m	R88A-CAGE050S

Note: There are separate connectors for power and brakes for 3,000-r/min Servomotors of 50 to 750 W, Flat Servomotors, and Servomotors of 6 kW or higher. When a Servomotor with a brake is used, it is necessary to use both a Power Cable for Servomotors without brakes and a Power Cable.

Servomotor Power Cables (Standard Cables)

For Servomotor with brake

Specifications		Model
3,000-r/min Servomotors of 1 to 1.5 kW, 2,000-r/min Servomotors of 1 to 1.5 kW, 1,000-r/min Servomotors of 900 W	3 m	R88A-CAGB003B
	5 m	R88A-CAGB005B
	10 m	R88A-CAGB010B
	15 m	R88A-CAGB015B
	20 m	R88A-CAGB020B
	30 m	R88A-CAGB030B
	40 m	R88A-CAGB040B
	50 m	R88A-CAGB050B
3,000-r/min Servomotors of 2 kW, 2,000-r/min Servomotors of 2 kW	3 m	R88A-CAGC003B
	5 m	R88A-CAGC005B
	10 m	R88A-CAGC010B
	15 m	R88A-CAGC015B
	20 m	R88A-CAGC020B
	30 m	R88A-CAGC030B
	40 m	R88A-CAGC040B
	50 m	R88A-CAGC050B
3,000-r/min Servomotors of 3 to 5 kW, 2,000-r/min Servomotors of 3 to 5 kW, 1,000-r/min Servomotors of 2 to 4.5 kW	3 m	R88A-CAGD003B
	5 m	R88A-CAGD005B
	10 m	R88A-CAGD010B
	15 m	R88A-CAGD015B
	20 m	R88A-CAGD020B
	30 m	R88A-CAGD030B
	40 m	R88A-CAGD040B
	50 m	R88A-CAGD050B

Brake Cables (Standard Cables)

Specifications		Model
3,000-r/min Servomotors of 50 to 750 W, 3,000-r/min Flat Servomotors of 100 to 400 W	3 m	R88A-CAGA003B
	5 m	R88A-CAGA005B
	10 m	R88A-CAGA010B
	15 m	R88A-CAGA015B
	20 m	R88A-CAGA020B
	30 m	R88A-CAGA030B
	40 m	R88A-CAGA040B
	50 m	R88A-CAGA050B
1,500-r/min Servomotors of 7.5 kW, 1,000-r/min Servomotors of 6 kW	3 m	R88A-CAGE003B
	5 m	R88A-CAGE005B
	10 m	R88A-CAGE010B
	15 m	R88A-CAGE015B
	20 m	R88A-CAGE020B
	30 m	R88A-CAGE030B
	40 m	R88A-CAGE040B
	50 m	R88A-CAGE050B

Encoder Cables (Standard Cables)

Specifications		Model
3,000-r/min Servomotors of 50 to 750 W with an absolute encoder, 3,000-r/min Flat Servomotors of 100 to 400 W with an absolute encoder	3 m	R88A-CRGA003C
	5 m	R88A-CRGA005C
	10 m	R88A-CRGA010C
	15 m	R88A-CRGA015C
	20 m	R88A-CRGA020C
	30 m	R88A-CRGA030C
	40 m	R88A-CRGA040C
	50 m	R88A-CRGA050C
3,000-r/min Servomotors of 50 to 750 W with an incremental encoder, 3,000-r/min Flat Servomotors of 100 to 400 W with an incremental encoder	3 m	R88A-CRGB003C
	5 m	R88A-CRGB005C
	10 m	R88A-CRGB010C
	15 m	R88A-CRGB015C
	20 m	R88A-CRGB020C
	30 m	R88A-CRGB030C
	40 m	R88A-CRGB040C
	50 m	R88A-CRGB050C
3,000-r/min Servomotors of 1 to 5 kW, 2,000-r/min Servomotors of 1 to 5 kW, 1,500-r/min Servomotors of 7.5 kW, 1,000-r/min Servomotors of 900 W to 6 kW	3 m	R88A-CRGC003N
	5 m	R88A-CRGC005N
	10 m	R88A-CRGC010N
	15 m	R88A-CRGC015N
	20 m	R88A-CRGC020N
	30 m	R88A-CRGC030N
	40 m	R88A-CRGC040N
	50 m	R88A-CRGC050N

Communications Cables

Specifications		Model
RS-232 Communications Cable	2 m	R88A-CCG002P2
RS-485 Communications Cable	0.5 m	R88A-CCG0R5P4
	1 m	R88A-CCG001P4

Absolute Encoder Battery Cable

Specifications		Model
Absolute Encoder Battery Cable	0.3 m	R88A-CRGD0R3C

Connectors

Specifications		Model
Servomotor Connector for Encoder Cable	Absolute Encoder	R88A-CNG01R
	Incremental Encoder	R88A-CNG02R
Control I/O Connector (CN1)		R88A-CNU11C
Encoder Connector (CN2)		R88A-CNW01R

Servo Relay Units (for CN1)

Specifications	Model
For CS1W-NC113/-NC133 For CJ1W-NC113/-NC133 For C200HW-NC113	XW2B-20J6-1B
For CS1W-NC213/-NC413/-NC233/-NC433 For CJ1W-NC213/-NC413/-NC233/-NC433 For C200HW-NC213/-NC413	XW2B-40J6-2B
For CJ1M-CPU21/-CPU22/-CPU23 (for 1 axis)	XW2B-20J6-8A
For CJ1M-CPU21/-CPU22/-CPU23 (for 2 axis)	XW2B-40J6-9A
For FQM1-MMA22 For FQM1-MMP22	XW2B-80J7-12A
For CQM1H-PLB21	XW2B-20J6-3B

Servo Relay Unit Cables (for Servo Drives)

Specifications	Model
For Position Control Unit (XW2B-20J6-1B/XW2B-40J6-2B) For CQM1H-PLB21 (XW2B-20J6-3B)	1 m XW2Z-100J-B25 2 m XW2Z-200J-B25
For CJ1M-CPU21/-CPU22/-CPU23 (XW2B-20J6-8A/XW2B-40J6-9A)	1 m XW2Z-100J-B31 2 m XW2Z-200J-B31
For FQM1-MMA22 (XW2B-80J7-12A)	1 m XW2Z-100J-B27 2 m XW2Z-200J-B27
For FQM1-MMP22 (XW2B-80J7-12A)	1 m XW2Z-100J-B26 2 m XW2Z-200J-B26

Servo Relay Unit Cables (for Position Control Units)

Specifications	Model
For CQM1H-PLB21 (XW2B-20J6-3B)	0.5 m XW2Z-050J-A3 1 m XW2Z-100J-A3
For CS1W-NC113, C200HW-NC113 (XW2B-20J6-1B)	0.5 m XW2Z-050J-A6 1 m XW2Z-100J-A6
For CS1W-NC213/-NC413, C200HW-NC213/ -NC413 (XW2B-20J6-2B)	0.5 m XW2Z-050J-A7 1 m XW2Z-100J-A7
For CS1W-NC133 (XW2B-20J6-1B)	0.5 m XW2Z-050J-A10 1 m XW2Z-100J-A10
For CS1W-NC233/-NC433 (XW2B-20J6-2B)	0.5 m XW2Z-050J-A11 1 m XW2Z-100J-A11
For CJ1W-NC113 (XW2B-20J6-1B)	0.5 m XW2Z-050J-A14 1 m XW2Z-100J-A14
For CJ1W-NC213/-NC413 (XW2B-20J6-2B)	0.5 m XW2Z-050J-A15 1 m XW2Z-100J-A15
For CJ1W-NC133 (XW2B-20J6-1B)	0.5 m XW2Z-050J-A18 1 m XW2Z-100J-A18
For CJ1W-NC233/-NC433 (XW2B-20J6-2B)	0.5 m XW2Z-050J-A19 1 m XW2Z-100J-A19
For CJ1M-CPU21/-CPU22/-CPU23 (XW2B-20J6-8A/XW2B-40J6-9A)	0.5 m XW2Z-050J-A33 1 m XW2Z-100J-A33
For FQM1-MMA22 (XW2B-80J7-12A)	General-purpose I/O Cables 0.5 m XW2Z-050J-A28 1 m XW2Z-100J-A28 2 m XW2Z-200J-A28 Special I/O Cables 0.5 m XW2Z-050J-A31 1 m XW2Z-100J-A31 2 m XW2Z-200J-A31
For FQM1-MMP22 (XW2B-80J7-12A)	General-purpose I/O Cables 0.5 m XW2Z-050J-A28 1 m XW2Z-100J-A28 2 m XW2Z-200J-A28 Special I/O Cables 0.5 m XW2Z-050J-A30 1 m XW2Z-100J-A30 2 m XW2Z-200J-A30

Control Cables

Specifications		Model
Motion Control Unit Cables for 1 axis CS1W-MC221-V1/-MC421-V1	1 m	R88A-CPG001M1
	2 m	R88A-CPG002M1
	3 m	R88A-CPG003M1
	5 m	R88A-CPG005M1
Motion Control Unit Cables for 2 axes CS1W-MC221-V1/-MC421-V1	1 m	R88A-CPG001M2
	2 m	R88A-CPG002M2
	3 m	R88A-CPG003M2
	5 m	R88A-CPG005M2
General-purpose Control Cables with Connector on One End	1 m	R88A-CPG001S
	2 m	R88A-CPG002S
Connector-Terminal Block Cables	1 m	XW2Z-100J-B24
	2 m	XW2Z-200J-B24
Connector Terminal Block Conversion Unit	M3 screw type	XW2B-50G4
	M3.5 screw type	XW2B-50G5
	M3 screw type	XW2D-50G6

External Regeneration Resistors

Specifications	Model
80W 50 Ω	R88A-RR08050S
80 W 100 Ω	R88A-RR080100S
220 W 47 Ω	R88A-RR22047S

Reactors

Specifications	Model
R88D-GTA5L/-GT01H	3G3AX-DL2002
R88D-GT01L/-GT02H	3G3AX-DL2004
R88D-GT02L/-GT04H	3G3AX-DL2007
R88D-GT04L/-GT08H/-GT10H	3G3AX-DL2015
R88D-GT15H	3G3AX-DL2022
R88D-GT08H/-GT10H/-GT15H	3G3AX-AL2025
R88D-GT20H/-GT30H	3G3AX-AL2055
R88D-GT50H	3G3AX-AL2110
R88D-GT75H	3G3AX-AL2220

Mounting Brackets (L Brackets for Rack Mounting)

Specifications	Model
R88D-GTA5L/-GT01L/-GT01H/-GT02H	R88A-TK01G
R88D-GT02L/-GT04H	R88A-TK02G
R88D-GT04L/-GT08H	R88A-TK03G
R88D-GT10H/-GT15H	R88A-TK04G

Absolute Encoder Backup Battery

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

Parameter Unit

Specifications	Model
Parameter Unit	R88A-PR02G

Servo Driver-Servomotor Combinations

Only the Servomotor and Servo Drive combinations listed here can be used. Do not use other combinations.

● 3,000-r/min Cylindrical Servomotors and Servo Drives

Voltage	Servo Drive	Servomotor		
		Rated output	With incremental encoder	With absolute encoder
100 V	R88D-GTA5L	50 W	R88M-G05030H-□	R88M-G05030T-□
	R88D-GT01L	100 W	R88M-G10030L-□	R88M-G10030S-□
	R88D-GT02L	200 W	R88M-G20030L-□	R88M-G20030S-□
	R88D-GT04L	400 W	R88M-G40030L-□	R88M-G40030S-□
Single-phase 200 V	R88D-GT01H	50 W	R88M-G05030H-□	R88M-G05030T-□
	R88D-GT01H	100 W	R88M-G10030H-□	R88M-G10030T-□
	R88D-GT02H	200 W	R88M-G20030H-□	R88M-G20030T-□
	R88D-GT04H	400 W	R88M-G40030H-□	R88M-G40030T-□
Single-phase/ three-phase 200 V	R88D-GT08H	750 W	R88M-G75030H-□	R88M-G75030T-□
	R88D-GT15H	1 kW	—	R88M-G1K030T-□
	R88D-GT15H	1.5 kW	—	R88M-G1K530T-□
Three-phase 200 V	R88D-GT20H	2 kW	—	R88M-G2K030T-□
	R88D-GT30H	3 kW	—	R88M-G3K030T-□
	R88D-GT50H	4 kW	—	R88M-G4K030T-□
	R88D-GT50H	5 kW	—	R88M-G5K030T-□

● 3,000-r/min Flat Servomotors and Servo Drives

Voltage	Servo Drive	Servomotor		
		Rated output	With incremental encoder	With absolute encoder
100 V	R88D-GT01L	100 W	R88M-GP10030L-□	R88M-GP10030S-□
	R88D-GT02L	200 W	R88M-GP20030L-□	R88M-GP20030S-□
	R88D-GT04L	400 W	R88M-GP40030L-□	R88M-GP40030S-□
Single-phase 200 V	R88D-GT01H	100 W	R88M-GP10030H-□	R88M-GP10030T-□
	R88D-GT02H	200 W	R88M-GP20030H-□	R88M-GP20030T-□
	R88D-GT04H	400 W	R88M-GP40030H-□	R88M-GP40030T-□

● 2,000-r/min Cylindrical Servomotors and Servo Drives

Voltage	Servo Drive	Servomotor	
		Rated output	With absolute encoder
Single-phase/ three-phase 200 V	R88D-GT10H	1 kW	R88M-G1K020T-□
	R88D-GT15H	1.5 kW	R88M-G1K520T-□
Three-phase 200 V	R88D-GT20H	2 kW	R88M-G2K020T-□
	R88D-GT30H	3 kW	R88M-G3K020T-□
	R88D-GT50H	4 kW	R88M-G4K020T-□
	R88D-GT50H	5 kW	R88M-G5K020T-□
	R88D-GT75H	7.5 kW	R88M-G7K515T-□

● 1,000-r/min Cylindrical Servomotors and Servo Drives

Voltage	Servo Drive	Servomotor	
		Rated output	With absolute encoder
Single-phase/ three-phase 200 V	R88D-GT15H	900 W	R88M-G90010T-□
Three-phase 200 V	R88D-GT30H	2 kW	R88M-G2K010T-□
	R88D-GT50H	3 kW	R88M-G3K010T-□
	R88D-GT50H	4.5 kW	R88M-G4K510T-□
	R88D-GT75H	6 kW	R88M-G6K010T-□

Servo Relay Units and Cables, Motion Control Unit Cable

● Servo Relay Units and Cables

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

Position Control Unit	Position Control Unit Cable		Servo Relay Unit	Servo Drive Cable	
CQM1H-PLB21	XW2Z-□□□J-A3		XW2B-20J6-3B	XW2Z-□□□J-B25	
CS1W-NC113	XW2Z-□□□J-A6		XW2B-20J6-1B		
C200HW-NC113					
CS1W-NC213	XW2Z-□□□J-A7		XW2B-40J6-2B		
CS1W-NC413					
C200HW-NC213					
C200HW-NC413					
CS1W-NC133	XW2Z-□□□J-A10		XW2B-20J6-1B		
CS1W-NC233	XW2Z-□□□J-A11		XW2B-40J6-2B		
CS1W-NC433					
CJ1W-NC113	XW2Z-□□□J-A14		XW2B-20J6-1B		
CJ1W-NC213	XW2Z-□□□J-A15		XW2B-40J6-2B		
CJ1W-NC413					
CJ1W-NC133	XW2Z-□□□J-A18		XW2B-20J6-1B		
CJ1W-NC233	XW2Z-□□□J-A19		W2B-40J6-2B		
CJ1W-NC433					
CJ1M-CPU21	XW2Z-□□□J-A33		XW2B-20J6-8A (for 1 axes)	XW2Z-□□□J-B31	
CJ1M-CPU22			XW2B-40J6-9A (for 2 axes)		
CJ1M-CPU23					
FQM1-MMP22	General-purpose I/O Cables	XW2Z-□□□J-A28	XW2B-80J7-12A	XW2Z-□□□J-B26	
	Special I/O Cables	XW2Z-□□□J-A30			
FQM1-MMA22	General-purpose I/O Cables	XW2Z-□□□J-A28			XW2Z-□□□J-B27
	Special I/O Cables	XW2Z-□□□J-A31			

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

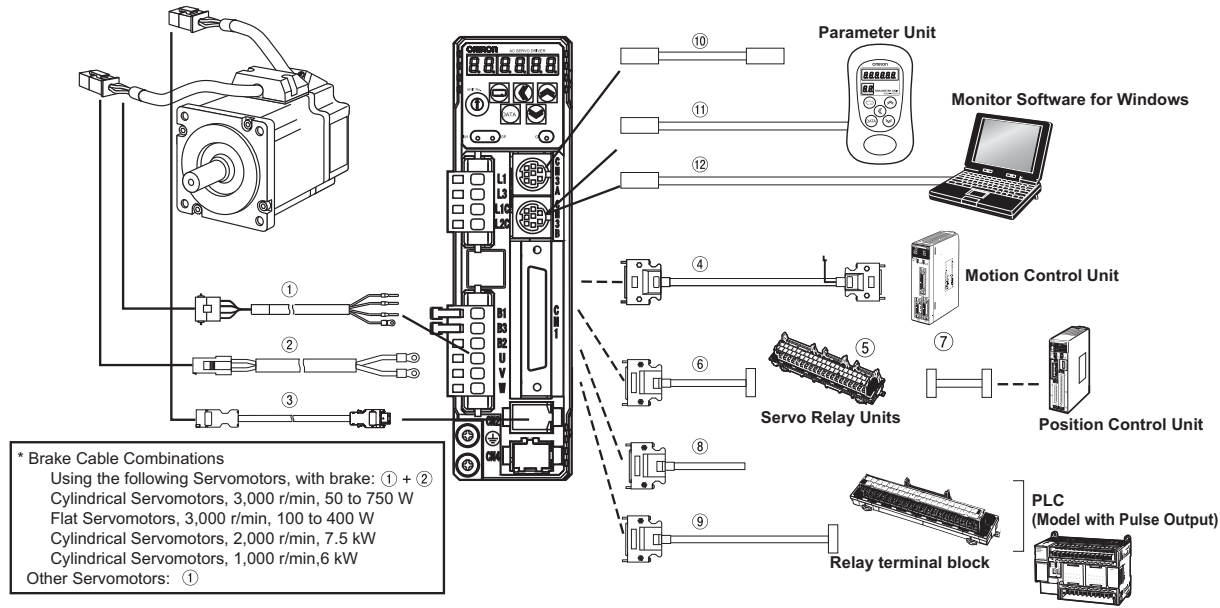
Note: 2. Two Servo Driver Cables are required if 2-axis control is performed using one Position Control Unit.

● Motion Control Unit Cable

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

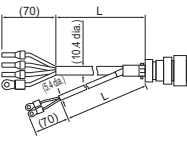
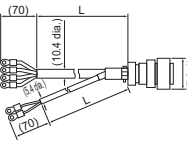
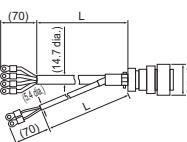
Motion Control Unit	Cable		Remarks
CS1W-MC221-V1/421-V1	For 1 axis	R88A-CPG□□□M1	The □□□ digits in the model number indicate the cable length. Motion Control Unit Cables come in four lengths: 1 m, 2 m, 3 m, and 5 m. Example model number for 2-m 1-axis cable: R88A-CPG002M1
	For 2 axes	R88A-CPG□□□M2	

Cable Combinations

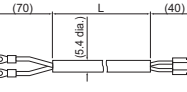
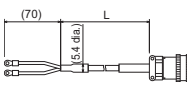


● Power Supply Cables (for CNB) (SR Connection Cables)

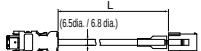
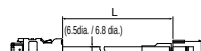
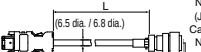
Symbol	Name	Connected to	Model	Description
①	Standard Servomotor Power Cables for Servomotors without Brakes	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W Flat Servomotors, 3,000 r/min, 100 to 400 W	R88A-CAGA□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Connector: 172159-1 (Tyco Electronics AMP KK) Connector pins: 170362-1 (Tyco Electronics AMP KK) 170366-1 (Tyco Electronics AMP KK)
		Cylindrical Servomotors, 3,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: NMS3106B20-4S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: NMS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 3,000 r/min, 2 kW Cylindrical Servomotors, 2,000 r/min, 2 kW	R88A-CAGC□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: NMS3106B20-4S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: NMS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	R88A-CAGD□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: NMS3106B22-22S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: NMS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 1,500 r/min, 7.5 kW Cylindrical Servomotors, 1,000 r/min, 6 kW	R88A-CAGE□□□S The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: NMS3106B32-17S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: NMS3057-20A (Japan Aviation Electronics Industry, Ltd.)

Symbol	Name	Connected to	Model	Description
①	Standard Servomotor Power Cables for Servomotors with Brakes	Cylindrical Servomotors, 3,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	R88A-CAGB□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: N/MS3106B20-18S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 3,000 r/min, 2 kW Cylindrical Servomotors, 2,000 r/min, 2 kW	R88A-CAGC□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: N/MS3106B20-18S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-12A (Japan Aviation Electronics Industry, Ltd.)
		Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	R88A-CAGD□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: N/MS3106B24-11S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-16A (Japan Aviation Electronics Industry, Ltd.)
	Robot Servomotor Power Cables for Servomotors without Brakes	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W Flat Servomotors, 3,000 r/min, 100 to 400 W	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 1,000 r/min, 900 kW	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 2 kW Cylindrical Servomotors, 2,000 r/min, 2 kW	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	Available soon	—
	Robot Servomotor Power Cables for Servomotors with Brakes	Cylindrical Servomotors, 3,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 1,000 r/min, 900 W	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 2 kW Cylindrical Servomotors, 2,000 r/min, 2 kW	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 3 to 5 kW Cylindrical Servomotors, 2,000 r/min, 3 to 5 kW Cylindrical Servomotors, 1,000 r/min, 2 to 4.5 kW	Available soon	—

● Brake Cables

Symbol	Name	Connected to	Model	Description
②	Standard Brake Cables	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W Flat Servomotors, 3,000 r/min, 100 to 400 W	R88A-CAGA□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Connector: 172157-1 (Tyco Electronics AMP KK) Connector pins: 170362-1 (Tyco Electronics AMP KK) 170366-1 (Tyco Electronics AMP KK)
		Cylindrical Servomotors, 1,500 r/min, 7.5 kW Cylindrical Servomotors, 1,000 r/min, 6 kW	R88A-CAGE□□□B The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	 [Servomotor Connector] Straight plug: N/MS3106B14-2S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/MS3057-6A (Japan Aviation Electronics Industry, Ltd.)
	Robot Brake Cables	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W Flat Servomotors, 3,000 r/min, 100 to 400 W	Available soon	—

● Encoder Cables (for CN2)

Symbol	Name	Connected to	Model	Description
③	Standard Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W, absolute encoder Flat Servomotors, 3,000 r/min, 100 to 400 W, absolute encoder	R88A-CRGA□□□C The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	[Servo Driver Connector] Connector: 3 to 20 m: Crimped I/O connector: (Molex Japan Co., Ltd.) 30 to 50 m: 55100-0670 (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  [Servomotor Connector] Connector: 172161-1 (Tyco Electronics AMP KK) Connector pins: 170365-1 (Tyco Electronics AMP KK) 171639-1 (Tyco Electronics AMP KK)
		Cylindrical Servomotors, 3,000 r/min, 50 to 750 W, incremental encoder Flat Servomotors, 3,000 r/min, 100 to 400 W, incremental encoder	R88A-CRGB□□□C The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	[Servo Driver Connector] Connector: 3 to 20 m: Crimped I/O connector: (Molex Japan Co., Ltd.) 30 to 50 m: 55100-0670 (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  [Servomotor Connector] Connector: 172160-1 (Tyco Electronics AMP KK) Connector pins: 170365-1 (Tyco Electronics AMP KK) 171639-1 (Tyco Electronics AMP KK)
		Cylindrical Servomotors, 3,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1 to 5 kW Cylindrical Servomotors, 1,500 r/min, 7.5 kW Cylindrical Servomotors, 1,000 r/min, 900 W to 6 kW	R88A-CRGC□□□□N The empty boxes in the model number are for the cable length. The cable can be 3, 5, 10, 15, 20, 30, 40, or 50 m long.	[Servo Driver Connector] Connector: 3 to 20 m: Crimped I/O connector: (Molex Japan Co., Ltd.) 30 to 50 m: 55100-0670 (Molex Japan Co., Ltd.) Connector pins: 50639-8028 (Molex Japan Co., Ltd.)  [Servomotor Connector] Straight plug: N/MS3106B20-29S (Japan Aviation Electronics Industry, Ltd.) Cable clamp: N/NS3057-12A (Japan Aviation Electronics Industry, Ltd.)
	Robot Encoder Cables with Connectors	Cylindrical Servomotors, 3,000 r/min, 50 to 750 W, absolute encoder Flat Servomotors, 3,000 r/min, 100 to 400 W, absolute encoder	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 50 to 750 W, incremental encoder Flat Servomotors, 3,000 r/min, 100 to 400 W, incremental encoder	Available soon	—
		Cylindrical Servomotors, 3,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1 to 1.5 kW Cylindrical Servomotors, 2,000 r/min, 1.5 to 7.5 kW Cylindrical Servomotors, 1,000 r/min, 900 W to 6 kW	Available soon	—

● Control Cables (for CN1)

Symbol	Name	Connected to	Model
④	Control Cables	Motion Control Units (for all SYSMAC CS1/C200H)	R88A-CPG□□□M◆ The empty boxes in the model number are for the cable length. The cable can be 1, 2, 3, or 5 m long. The empty diamond in the model number is for the number of axes. One axis: 1, Two axes: 2
⑤	Servo Relay Units	CJ1W-NC113/NC133 CS1W-NC113/NC133 (C200HW-NC113)	XW2B-20J6-1B
		CJ1W-NC213/NC233/NC413/NC433 CS1W-NC213/NC233/NC413/NC433 (C200HW-NC213/NC413)	XW2B-40J6-2B
		CJ1M-CPU21/CPU22/CPU23 (1 axis)	XW2B-20J6-8A
		CJ1M-CPU21/CPU22/CPU23 (2 axes)	XW2B-40J6-9A
		FQM1-MMA22 FQM1-MMP22	XW2B-80J7-12A
		CQM1H-PLB21	XW2B-20J6-3B

Symbol	Name	Connected to	Model
⑥	Servo Relay Unit Cables for Servo Drives	NC Unit (XW2B-20J6-1B/XW2B-40J6-2B) CQM1H-PLB21 (XW2B-20J6-3B)	XW2Z-□□□J-B25 The empty boxes in the model number are for the cable length. The cable can be 1 or 2 m long.
		CJ1M-CPU21/-CPU22/-CPU23 (XW2B-20J6-8A and XW2B-40J6-9A)	XW2Z-□□□J-B31
		FQM1-MMA22 (XW2B-80J7-12A)	XW2Z-□□□J-B27 The empty boxes in the model number are for the cable length. The cable can be 1 or 2 m long.
		FQM1-MMP22 (XW2B-80J7-12A)	XW2Z-□□□J-B26 The empty boxes in the model number are for the cable length. The cable can be 1 or 2 m long.
⑦	Servo Relay Unit Cables for Position Control Units	CJ1W-NC133	XW2Z-□□□J-A18 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CJ1W-NC233/NC433	XW2Z-□□□J-A19 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CS1W-NC133	XW2Z-□□□J-A10 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CS1W-NC233/NC433	XW2Z-□□□J-A11 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CJ1W-NC113	XW2Z-□□□J-A14 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CJ1W-NC213/NC413	XW2Z-□□□J-A15 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CS1W-NC113 C200HW-NC113	XW2Z-□□□J-A6 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CS1W-NC213/NC413 C200HW-NC213/NC413	XW2Z-□□□J-A7 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		CJ1M-CPU21/CPU22/CPU23	XW2Z-□□□J-A33 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
		FQM1-MMA22 FQM1-MMP22 (General-purpose I/O Cable)	XW2Z-□□□J-A28 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
		FQM1-MMA22 (Special I/O Cable)	XW2Z-□□□J-A31 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
		FQM1-MMP22 (Special I/O Cable)	XW2Z-□□□J-A30 The empty boxes in the model number are for the cable length. The cable can be 0.5, 1, or 2 m long.
⑧	General-purpose Control Cables	Cables for General-purpose Controllers	R88A-CPG□□□S The empty boxes in the model number are for the cable length. The cable can be 1 or 2 m long.
⑨	Connector Terminal Block Cables	Cables for General-purpose Controllers	XW2Z-□□□J-B24 The empty boxes in the model number are for the cable length. The cable can be 1 or 2 m long.
	Connector-Terminal Block Conversion Units	Conversion Unit for General-purpose Controllers (M3 screws)	XW2B-50G4
		Conversion Unit for General-purpose Controllers (M3.5 screws)	XW2B-50G5
		Conversion Unit for General-purpose Controllers (M3 screws)	XW2D-50G6

● CN3 Options

Symbol	Name	Connected to	Model
⑩	RS485 Communications Cables	—	R88A-CCG□□□P4 The empty boxes in the model number are for the cable length. The cable can be 0.5 or 1 m long.
⑪	Parameter Unit	—	R88A-PR02G
⑫	Personal Computer Monitor Cable (2 m)	Windows	R88A-CCG002P2

Servo Driver Specifications (R88D-GT)

General Specifications

Item			Specifications
Ambient operating temperature and operating humidity			0 to 55°C, 90% RH max. (with no condensation)
Ambient storage temperature and storage humidity			–20 to 65°C, 90% RH max. (with no condensation)
Storage and operating atmosphere			No corrosive gasses
Vibration resistance			Smaller of either 10 to 60 Hz with double amplitude of 0.1 mm or acceleration of 5.88 m/s ² max. in X, Y, and Z directions.
Impact resistance			Acceleration of 19.6 m/s ² max. 2 times each in X, Y, and Z directions
Insulation resistance			Between power supply/power line terminals and frame ground: 0.5 MΩ min. (at 500 VDC)
Dielectric strength			Between power supply/power line terminals and frame ground: 1,500 VAC for 1 min at 50/60 Hz Between each control signal and frame ground: 500 VAC for 1 min
Protective structure			Built into panel (IP10).
International standards	EC Directives	EMC Directive	EN 55011 class A group 1 EN 61000-6-2, IEC 61000-4-2/-3/-4/-5/-6/-11
		Low voltage Directive	EN 50178
	UL standards		UL 508C
	CSA standards		CSA C22.2 No.14

Note: 1. The above items reflect individual evaluation testing. The results may differ under compound conditions.

Note: 2. Never perform withstand-voltage or other megameter tests on the Servo Drive. Doing so may damage the internal elements.

Note: 3. Depending on the operating conditions, some Servo Drive parts will require maintenance.

Note: 4. The service life of the Servo Drive is 28,000 hours at an average ambient temperature of 55°C at 100% of the rated torque.

Characteristics

Servo Drives with 100-VAC Input Power

Item			R88D-GTA5L	R88D-GT01L	R88D-GT02L	R88D-GT04L	
Continuous output current (rms)			1.3 A	1.8 A	2.4 A	4.9 A	
Momentary maximum output current (rms)			3.9 A	5.4 A	7.2 A	14.7 A	
Input power supply	Main circuit	Power supply capacity	0.4 KVA	0.4 KVA	0.5 KVA	0.9 KVA	
		Power supply voltage	Single-phase 100 to 115 VAC (85 to 127 V), 50/60 Hz				
		Rated current	1.4 A	2.2 A	3.7 A	6.6 A	
	Control circuit	Power supply voltage	Single-phase 100 to 115 VAC (85 to 127 V), 50/60 Hz				
		Rated current	0.09 A	0.09 A	0.09 A	0.09 A	
Heat generated	Main circuit		10.1 W	14.4 W	18.4 W	41.4 W	
	Control circuit		4.4 W	4.4 W	4.4 W	4.4 W	
Control method			All-digital servo				
Inverter method			IGBT-driven PWM method				
PWM frequency			12.0 kHz		6.0 kHz		
Weight			Approx. 0.8 kg	Approx. 0.8 kg	Approx. 1.1 kg	Approx. 1.1 kg	
Maximum applicable motor capacity			50 W	100 W	200 W	400 W	
Applicable Servomotors	3,000-r/min Servomotors	INC	G05030H	G10030L	G20030L	G40030L	
		ABS	G05030T	G10030S	G20030S	G40030S	
	3,000-r/min Flat Servomotors	INC	—	GP10030L	GP20030L	GP40030L	
		ABS	—	GP10030S	GP20030S	GP40030S	
	2,000-r/min Servomotors		ABS	—	—	—	
	1,000-r/min Servomotors		ABS	—	—	—	
	Performance	Speed control range		1: 5000			
		Speed variability: Load characteristic		0.01% or less at 0% to 100% (at rated speed)			
Speed variability: Voltage characteristic		0% at ±10% of rated voltage (at rated speed)					
Speed variability: Temperature characteristic		±0.1% or less at 0 to 50°C (at rated speed)					
Torque control reproducibility		±3% (at 20% to 100% of rated torque)					

Servo Drives with Single-phase 200-VAC Input Power

Item			R88D-GT01H	R88D-GT02H	R88D-GT04H	R88D-GT08H	R88D-GT10H	R88D-GT15H
Continuous output current (rms)			1.16 A	1.6 A	2.7 A	4.0 A	5.9 A	9.8 A
Momentary maximum output current (rms)			3.5 A	5.3 A	7.1 A	14.1 A	21.2 A	28.3 A
Input power supply	Main circuit	Power supply capacity	0.5 KVA	0.5 KVA	0.9 KVA	1.3 KVA	1.8 KVA	2.3 KVA
		Power supply voltage	Single-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			Single-phase or three-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz		
		Rated current	1.3 A	2.0 A	3.7 A	5.0/3.3 ^{*1} A	7.5/4.1 ^{*1} A	11/8.0 ^{*1} A
	Control circuit	Power supply voltage	Single-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz					
		Rated current	0.05 A	0.05 A	0.05 A	0.05 A	0.07 A	0.07 A
Heat generated	Main circuit		14.3 W	14.8 W	23.6 W	38.7 W	52.9 W	105.9 W
	Control circuit		4.5 W	4.5 W	4.5 W	4.3 W	6.1 W	6.1 W
PWM frequency			12.0 kHz			6.0 kHz		
Weight			Approx. 0.8 kg	Approx. 0.8 kg	Approx. 1.1 kg	Approx. 1.5 kg	Approx. 1.7 kg	Approx. 1.7 kg
Maximum applicable motor capacity			100 W	200 W	400 W	750 W	1 k W	1.5 kW
Applicable Servomotors	3,000-r/min Servomotors	INC	G05030H G10030H	G20030H	G40030H	G75030H	—	—
		ABS	G05030T G10030T	G20030T	G40030T	G75030T	—	G1K030T G1K530T
	3,000-r/min Flat Servomotors	INC	GP10030H	GP20030H	GP40030H	—	—	—
		ABS	GP10030T	GP20030T	GP40030T	—	—	—
	2,000-r/min Servomotors	ABS	—	—	—	—	G1K020T	G1K520T
	1,000-r/min Servomotors	ABS	—	—	—	—	—	G90010T
Control method			All-digital servo					
Inverter method			IGBT-driven PWM method					
Performance	Speed control range		1:5000					
	Speed variability: Load characteristic		0.01% or less at 0% to 100% (at rated speed)					
	Speed variability: Voltage characteristic		0% at ±10% of rated voltage (at rated speed)					
	Speed variability: Temperature characteristic		±0.1% or less at 0 to 50°C (at rated speed)					
	Torque control reproducibility		±3% (at 20% to 100% of rated torque)					

*1. The left value is for single-phase input power and the right value is for three-phase input power.

Servo Drives with Three-phase 200-VAC Input Power

Item			R88D-GT20H	R88D-GT30H	R88D-GT50H	R88D-GT75H
Continuous output current (rms)			14.3 A	17.4 A	31.0 A	45.4 A
Momentary maximum output current (rms)			45.3 A	63.6 A	84.8 A	170.0 A
Input power supply	Main circuit	Power supply capacity	3.3 KVA	4.5 KVA	7.5 KVA	11 KVA
		Power supply voltage	Three-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			
		Rated current	10.2 A	15.2 A	23.7 A	35.0 A
	Control circuit	Power supply voltage	Single-phase 200 to 240 VAC (170 to 264 V), 50/60 Hz			
		Rated current	0.1 A	0.12 A	0.12 A	0.14 A
Heat generated	Main circuit		112.3 W	219.6 W	391.7 W	376.2 W
	Control circuit		10.7 W	13.3 W	13.3 W	13.8 W
PWM frequency			6.0 kHz			
Weight			Approx. 3.2 kg	Approx. 6.0 kg	Approx. 6.0 kg	Approx. 16.4 kg
Maximum applicable motor capacity			2 kW	3 kW	5 kW	7.5 kW
Applicable Servomotors	3,000-r/min Servomotors	INC	—	—	—	—
		ABS	G2K030T	G3K030T	G4K030T G5K030T	—
	3,000-r/min Flat Servomotors	INC	—	—	—	—
		ABS	—	—	—	—
	2,000-r/min Servomotors	ABS	G2K020T	G3K020T	G4K020T G5K020T	G7K515T
	1,000-r/min Servomotors	ABS	—	G2K010T	G3K010T G4K510T	G6K010T
Control method			All-digital servo			
Inverter method			IGBT-driven PWM method			
Performance	Speed control range		1:5000			
	Speed variability: Load characteristic		0.01% or less at 0% to 100% (at rated speed)			
	Speed variability: Voltage characteristic		0% at ±10% of rated voltage (at rated speed)			
	Speed variability: Temperature characteristic		±0.1% or less at 0 to 50°C (at rated speed)			
	Torque control reproducibility		±3% (at 20% to 100% of rated torque)			

Servomotor Specifications (R88M-G)

● General Specifications

Item			3,000-r/min Servomotors		3,000-r/min Flat Servomotors	1,000-r/min Servomotors 2,000-r/min Servomotors	
			50 to 750 W	1 to 5 kW		900 W to 5 kW	6 to 7.5 kW
Ambient operating temperature and humidity			0 to 40°C, 85% RH max. (with no condensation)				
Ambient storage temperature and humidity			-20 to 65°C, 85% RH max. (with no condensation)	-20 to 80°C, 85% RH max. (with no condensation)			
Storage and operating atmosphere			No corrosive gases				
Vibration resistance *1			10 to 2,500 Hz and acceleration of 49 m/s ² max. in the X, Y, and Z directions	10 to 2,500 Hz and acceleration of 24.5 m/s ² max. in the X, Y, and Z directions	10 to 2,500 Hz and acceleration of 49 m/s ² max. in the X, Y, and Z directions	10 to 2,500 Hz and acceleration of 24.5 m/s ² max. in the X, Y, and Z directions	
Impact resistance			Acceleration of 98 m/s ² max. 3 times each in the X, Y, and Z directions	Acceleration of 98 m/s ² max. 3 times each in the X, Y, and Z directions	Acceleration of 98 m/s ² max. 3 times each in the X, Y, and Z directions	Acceleration of 98 m/s ² max. 2 times vertically	
Insulation resistance			20 MΩ min. at 500 VDC between the power terminals and FG terminal				
Dielectric strength			1,500 VAC (50 or 60 Hz) for 1 minute between the power terminals and FG terminal				
Operating position			All directions				
Insulation grade			Type B	Type F	Type B	Type F	
Structure			Totally enclosed, self-cooling				
Protective structure			IP65 (excluding the output shaft rotating section and lead wire ends)				
Vibration grade			V-15				
Mounting method			Flange-mounting				
International standards	EC Directives	EMC Directive	EN 55011 Class A Group 1				
			EN 61000-6-2, IEC 61000-4-2/-3/-4/-5/-6/-11				
		Low voltage Directive	IEC 60034-1/-5				
	UL standards		UL 1004				
	CSA standards	CSA 22.2 No.100					

*1. The amplitude may be amplified by mechanical resonance. Do not exceed 80% of the specified value for extended periods of time.

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

Note: 2. Do not expose the cable outlet or connections to stress due to bending or the weight of the cable itself.

Servomotor Specifications (R88M-G)

Characteristics

3,000-r/min Cylindrical Servomotors

100-VAC Input Power

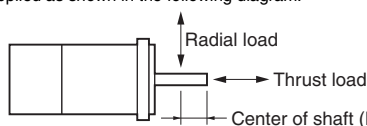
Model (R88M-)		G05030H	G10030L	G20030L	G40030L
Item	Unit	G05030T	G10030S	G20030S	G40030S
Rated output ^{*1}	W	50	100	200	400
Rated torque ^{*1}	N·m	0.16	0.32	0.64	1.3
Rated rotation speed	r/min	3000			
Max. momentary rotation speed	r/min	5000			
Max. momentary torque ^{*1}	N·m	0.45	0.93	1.78	3.6
Rated current ^{*1}	A (rms)	1.1	1.7	2.5	4.6
Max. momentary current ^{*1}	A (rms)	3.4	5.1	7.6	13.9
Rotor inertia	kg·m ² (GD ² /4)	2.5 × 10 ⁻⁶	5.1 × 10 ⁻⁶	1.4 × 10 ⁻⁵	2.6 × 10 ⁻⁵
Applicable load inertia	—	30 times the rotor inertia max. ^{*2}			
Torque constant ^{*1}	N·m/A	0.14	0.19	0.26	0.28
Power rate ^{*1}	kW/s	10.4	20.1	30.3	62.5
Mechanical time constant	ms	1.56	1.11	0.72	0.55
Electrical time constant	ms	0.7	0.8	2.5	2.9
Allowable radial load ^{*3}	N	68	68	245	245
Allowable thrust load ^{*3}	N	58	58	98	98
Weight	Without brake	kg	Approx. 0.3	Approx. 0.5	Approx. 0.8
	With brake	kg	Approx. 0.5	Approx. 0.7	Approx. 1.3
Radiation shield dimensions (material)		100 × 80 × t10 (Al)		130 × 120 × t12 (Al)	
Applicable Servo Drives (R88D-)		GTA5L	GT01L	GT02L	GT04L
Brake specifications	Brake inertia	kg·m ² (GD ² /4)	2 × 10 ⁻⁷	2 × 10 ⁻⁷	1.8 × 10 ⁻⁶
	Excitation voltage ^{*4}	V	24 VDC ±5%		
	Power consumption (at 20°C)	W	7	7	9
	Current consumption (at 20°C)	A	0.3	0.3	0.36
	Static friction torque	N·m	0.29 min.	0.29 min.	1.27 min.
	Attraction time ^{*5}	ms	35 max.	35 max.	50 max.
	Release time ^{*5}	ms	20 max.	20 max.	15 max.
	Backlash		1° (reference value)		
	Allowable work per braking	J	39.2	39.2	137
	Allowable total work	J	4.9 × 10 ³	4.9 × 10 ³	44.1 × 10 ³
	Allowable angular acceleration	rad/s ²	30,000 max. (Speed of 2,800 r/min or more must not be changed in less than 10 ms)		
	Brake life	—	10,000,000 operations min.		
	Rating	—	Continuous		
	Insulation grade	—	Type B		

*1. These are the values when the Servomotor is combined with a Servo Drive at room temperature (20°C, 65%). The maximum momentary torque shown above indicates the standard value.

*2. Applicable Load Inertia:

- The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.
- If the dynamic brake is activated frequently with high load inertia, the dynamic brake resistor may burn. Do not repeatedly turn the Servomotor ON and OFF while the dynamic brake is enabled.

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



*4. This is an OFF brake. (It is reset when excitation voltage is applied).

*5. The operation time is the value (reference value) measured with a surge suppressor (CR50500 manufactured by Okaya Electric Industries Co., Ltd.).

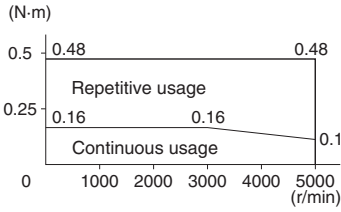
Torque and Rotation Speed Characteristics

3,000-r/min Cylindrical Servomotors

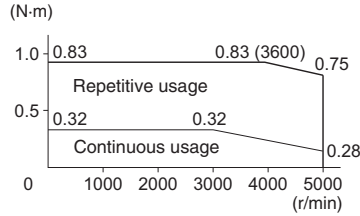
• 3,000-r/min Servomotors with 100-VAC Power Input

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

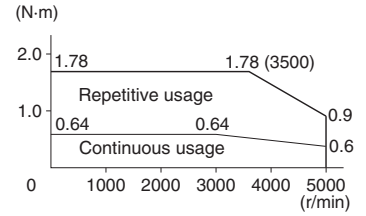
R88M-G05030H/T (50 W)



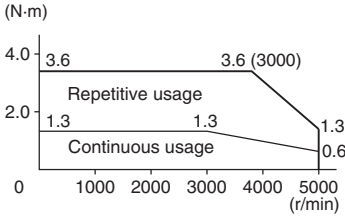
R88M-G10030L/S (100 W)



R88M-G20030L/S (200 W)



R88M-G40030L/S (400 W)



Servomotor Specifications (R88M-G)

Characteristics

3,000-r/min Cylindrical Servomotors

200-VAC Input Power

Model (R88M-)			G05030H	G10030H	G20030H	G40030H	G75030H	G1K030T	G1K530T	G2K030T	G3K030T	G4K030T	G5K030T	
Item	Unit		G05030T	G10030T	G20030T	G40030T	G75030T	G1K030T	G1K530T	G2K030T	G3K030T	G4K030T	G5K030T	
Rated output t ⁻¹	W		50	100	200	400	750	1000	1500	2000	3000	4000	5000	
Rated torque ⁻¹	N·m		0.16	0.32	0.64	1.3	2.4	3.18	4.77	6.36	9.54	12.6	15.8	
Rated rotation speed	r/min		3000					3000						
Max. momentary rotation speed	r/min		5000					5000				4500		
Max. momentary torque ⁻¹	N·m		0.45	0.90	1.78	3.67	7.05	9.1	12.8	18.4	27.0	36.3	45.1	
Rated current ⁻¹	A (rms)		1.1	1.1	1.6	2.6	4	7.2	9.4	13	18.6	24.7	28.5	
Max. momentary current ⁻¹	A (rms)		3.4	3.4	4.9	7.9	12.1	21.4	28.5	40	57.1	75	85.7	
Rotor inertia	kg·m ² (GD ² /4)		2.5 × 10 ⁻⁶	5.1 × 10 ⁻⁶	1.4 × 10 ⁻⁵	2.6 × 10 ⁻⁵	8.7 × 10 ⁻⁵	1.69 × 10 ⁻⁴	2.59 × 10 ⁻⁴	3.46 × 10 ⁻⁴	6.77 × 10 ⁻⁴	1.27 × 10 ⁻³	1.78 × 10 ⁻³	
Applicable load inertia		—	30 times the rotor inertia max. ⁻²				20 times the rotor inertia max. ⁻²	15 times the rotor inertia max. ⁻²						
Torque constant ⁻¹		N·m/A	0.14	0.19	0.41	0.51	0.64	0.44	0.51	0.48	0.51	0.51	0.57	
Power rate ⁻¹		kW/s	10.4	20.1	30.3	62.5	66	60	88	117	134	125	140	
Mechanical time constant		ms	1.56	1.1	0.71	0.52	0.45	0.78	0.54	0.53	0.46	0.51	0.46	
Electrical time constant		ms	0.7	0.79	2.6	3	4.6	6.7	10	10.8	20	20	20	
Allowable radial load ⁻³		N	68	68	245	245	392	392	490	490	490	784	784	
Allowable thrust load ⁻³		N	58	58	98	98	147	147	196	196	196	343	434	
Weight	Without brake	kg	Approx. 0.3	Approx. 0.5	Approx. 0.8	Approx. 1.2	Approx. 2.3	Approx. 4.5	Approx. 5.1	Approx. 6.5	Approx. 9.3	Approx. 12.9	Approx. 17.3	
	With brake	kg	Approx. 0.5	Approx. 0.7	Approx. 1.3	Approx. 1.7	Approx. 3.1	Approx. 5.1	Approx. 6.5	Approx. 7.9	Approx. 11	Approx. 14.8	Approx. 19.2	
Radiation shield dimensions (material)			100 × 80 × t10 (Al)		130 × 120 × t12 (Al)		170 × 160 × t12 (Al)	170 × 160 × t12 (Al)	320 × 300 × t30 (Al)	320 × 300 × t20 (Al)	380 × 350 × t30 (Al)			
Applicable Servo Drives (R88D-)			GT01H	GT01H	GT02H	GT04H	GT08H	GT15H	GT15H	GH20H	GT30H	GT50H	GT50H	
Brake specifications	Brake inertia		kg·m ² (GD ² /4)	2 × 10 ⁻⁷	2 × 10 ⁻⁷	1.8 × 10 ⁻⁶	1.8 × 10 ⁻⁶	7.5 × 10 ⁻⁶	2.5 × 10 ⁻⁵	3.3 × 10 ⁻⁵	3.3 × 10 ⁻⁵	3.3 × 10 ⁻⁵	1.35 × 10 ⁻⁴	1.35 × 10 ⁻⁴
	Excitation voltage ⁻⁴		V	24 VDC ±5%					24 VDC ±10%					
	Power consumption (at 20°C)		W	7	7	9	9	10	18	19	19	19	22	22
	Current consumption (at 20°C)		A	0.3	0.3	0.36	0.36	0.42	0.74	0.81	0.81	0.81	0.9	0.9
	Static friction torque		N·m	0.29min.	0.29 min.	1.27 min.	1.27 min.	2.45 min.	4.9 min.	7.8 min.	7.8 min.	11.8 min.	16.1 min.	16.1 min.
	Attraction time ⁻⁵		ms	35 max.	35 max.	50 max.	50 max.	70 max.	50 max.	50 max.	50 max.	80 max.	110 max.	110 max.
	Release time ⁻⁵		ms	20 max.	20 max.	15 max.	15 max.	20 max.	15 max.	15 max.	15 max.	15 max.	50 max.	50 max.
	Backlash			1° (reference value)										
	Allowable work per braking		J	39.2	39.2	137	137	196	392	392	392	392	1470	1470
	Allowable total work		J	4.9 × 10 ³	4.9 × 10 ³	44.1 × 10 ³	44.1 × 10 ³	147 × 10 ³	2.0 × 10 ⁵	4.9 × 10 ⁵	4.9 × 10 ⁵	4.9 × 10 ⁵	2.2 × 10 ⁶	2.2 × 10 ⁶
	Allowable angular acceleration		rad/s ²	30,000 max. (Speed of 2,800 r/min or more must not be changed in less than 10 ms)					10,000 max. (Speed of 900 r/min or more must not be changed in less than 10 ms)					
	Brake life		—	10,000,000 operations min.										
	Rating		—	Continuous										
	Insulation grade		—	Type B					Type F					

*1. These are the values when the Servomotor is combined with a Servo Drive at room temperature (20°C, 65%). The maximum momentary torque shown above indicates the standard value.

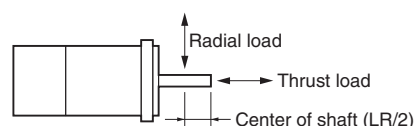
*2. Applicable Load Inertia:

- The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.
- If the dynamic brake is activated frequently with high load inertia, the dynamic brake resistor may burn. Do not repeatedly turn the Servomotor ON and OFF while the dynamic brake is enabled.

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

*4. This is an OFF brake. (It is reset when excitation voltage is applied).

*5. The operation time is the value (reference value) measured with a surge suppressor (CR50500 manufactured by Okaya Electric Industries Co., Ltd.).



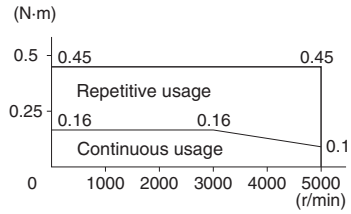
Torque and Rotation Speed Characteristics

3,000-r/min Cylindrical Servomotors

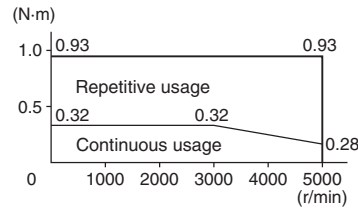
• 3,000-r/min Servomotors with 200-VAC Power Input

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

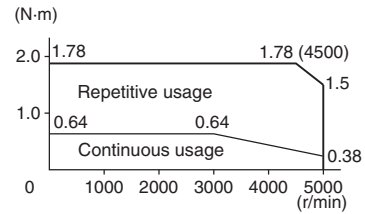
R88M-G05030H/T (50 W)



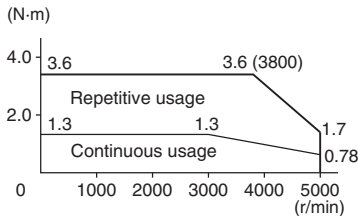
R88M-G10030H/T (100 W)



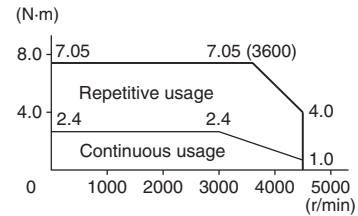
R88M-G20030H/T (200 W)



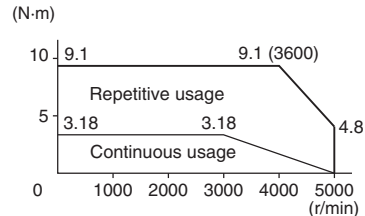
R88M-G40030H/T (400 W)



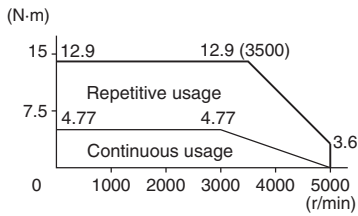
R88M-G75030H/T (750 W)



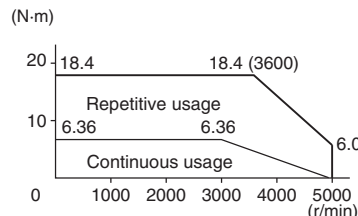
R88M-G1K030T (1 kW)



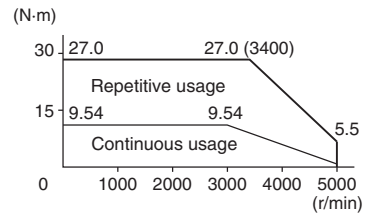
R88M-G1K530T (1.5 kW)



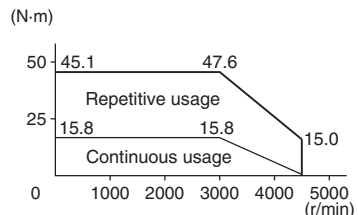
R88M-G2K030T (2 kW)



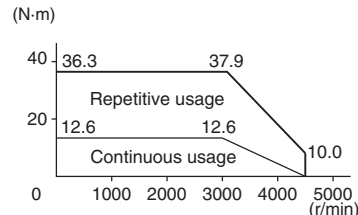
R88M-G3K030T (3 kW)



R88M-G4K030T (4 kW)



R88M-G5K030T (5 kW)



Servomotor Specifications (R88M-GP)

● Characteristics

3,000-r/min Flat Servomotors

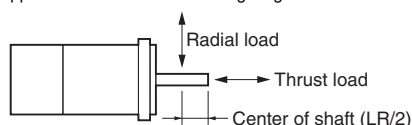
Model (R88M-)			100 VAC			200 VAC						
			GP10030L	GP20030L	GP40030L	GP10030H	GP20030H	GP40030H				
			GP10030S	GP20030S	GP40030S	GP10030T	GP20030T	GP40030T				
Item		Unit	Rated output *1		W	100	200	400	100	200	400	
			Rated torque *1		N·m	0.32	0.64	1.3	0.32	0.64	1.3	
			Rated rotation speed		r/min	3000						
			Max. momentary rotation speed		r/min	5000		4500	5000			
			Max. momentary torque *1		N·m	0.84	1.8	3.6	0.86	1.8	3.65	
			Rated current *1		A (rms)	1.6	2.5	4.4	1	1.6	2.5	
			Max. momentary current *1		A (rms)	4.9	7.5	13.3	3.1	4.9	7.5	
			Rotor inertia		kg·m ² (GD ² /4)	1.0 × 10 ⁻⁵	3.5 × 10 ⁻⁵	6.5 × 10 ⁻⁵	1.0 × 10 ⁻⁵	3.5 × 10 ⁻⁵	6.4 × 10 ⁻⁵	
			Applicable load inertia		---	20 times the rotor inertia max.*2						
			Torque constant *1		N·m/A	0.21	0.27	0.3	0.34	0.42	0.54	
			Power rate *1		kW/s	10.2	11.7	26.0	10.2	11.5	25.5	
			Mechanical time constant		ms	0.87	0.75	0.55	1.05	0.81	0.59	
			Electrical time constant		ms	3.4	6.7	6.7	2.9	5.6	6.6	
			Allowable radial load *3		N	68	245	245	68	245	245	
			Allowable thrust load *3		N	58	98	98	58	98	98	
Weight	Without brake		kg	Approx. 0.7	Approx. 1.3	Approx. 1.8	Approx. 0.7	Approx. 1.3	Approx. 1.8			
	With brake		kg	Approx. 0.9	Approx. 2	Approx. 2.5	Approx. 0.9	Approx. 2	Approx. 2.5			
Radiation shield dimensions (material)			130 × 120 × t10 (Al)		170 × 160 × t12 (Al)		130 × 120 × t10 (Al)		170 × 160 × t12 (Al)			
Applicable Servo Drives (R88D-)			GT01L		GT02L	GT04L	GT01H		GT02H	GT04H		
Brake specifications	Brake inertia		kg·m ² (GD ² /4)	3 × 10 ⁻⁶		9 × 10 ⁻⁶		3 × 10 ⁻⁶		9 × 10 ⁻⁶		
	Excitation voltage *4		V	24 VDC ±10%								
	Power consumption (at 20°C)		W	7	10		7	10				
	Current consumption (at 20°C)		A	0.29	0.41		0.29	0.41				
	Static friction torque		N·m	0.29 min.			0.29 min.	1.27 min.				
	Attraction time *5		ms	50 max.			50 max.	60 max.				
	Release time *5		ms	15 max.								
	Backlash			1° (reference value)								
	Allowable work per braking		J	137	196		137	196				
	Allowable total work		J	44.1 × 10 ³	147 × 10 ³		44.1 × 10 ³	147 × 10 ³				
	Allowable angular acceleration		rad/s ²	10,000 max. (Speed of 900 r/min or more must not be changed in less than 10 ms)								
	Brake life		---	10,000,000 operations min.								
	Rating		---	Continuous					Continuous			
	Insulation grade		---	Type B					Type B			

*1. These are the values when the Servomotor is combined with a Servo Drive at room temperature (20°C, 65%). The maximum momentary torque shown above indicates the standard value.

*2. Applicable Load Inertia:

- The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.
- If the dynamic brake is activated frequently with high load inertia, the dynamic brake resistor may burn. Do not repeatedly turn the Servomotor ON and OFF while the dynamic brake is enabled.

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



*4. This is an OFF brake. (It is reset when excitation voltage is applied).

*5. The operation time is the value (reference value) measured with a surge suppressor (CR50500 manufactured by Okaya Electric Industries Co., Ltd.).

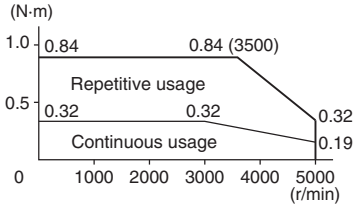
Torque and Rotation Speed Characteristics

3,000-r/min Flat Servomotors

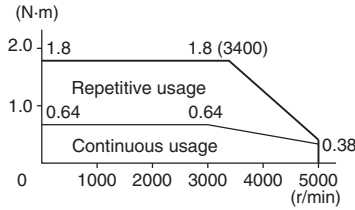
• 3,000-r/min Servomotors with 100-VAC Power Input

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

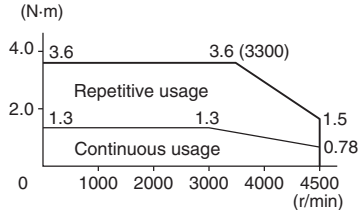
R88M-GP10030L/S (100 W)



R88M-GP20030L/S (200 W)



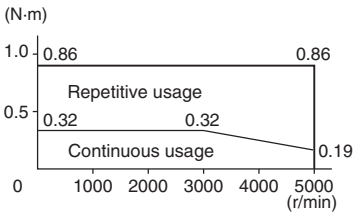
R88M-GP40030L/S (400 W)



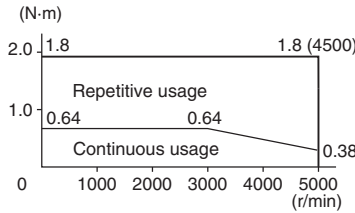
• 3,000-r/min Servomotors with 200-VAC Power Input

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

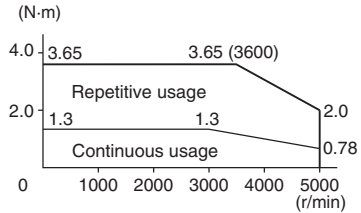
R88M-GP10030H/T (100W)



R88M-GP20030H/T (200Çv)



R88M-GP40030H/T (400Çv)



Servomotor Specifications (R88M-G)

● Characteristics

2,000-r/min Cylindrical Servomotors

200-VAC Input Power

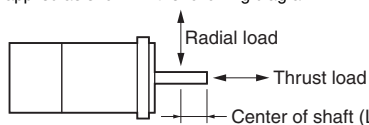
Model (R88M-)		Unit	G1K020T	G1K520T	G2K020T	G3K020T	G4K020T	G5K020T	G7K515T
Rated output ^{*1}	W		1000	1500	2000	3000	4000	5000	7500
Rated torque ^{*1}	N·m		4.8	7.15	9.54	14.3	18.8	23.8	48
Rated rotation speed	r/min		2000						1500
Max. momentary rotation speed	r/min		3000						2000
Max. momentary torque ^{*1}	N·m		13.5	19.6	26.5	41.2	54.9	70.6	111
Rated current ^{*1}	A (rms)		5.6	9.4	12.3	17.8	23.4	28	46.6
Max. momentary current ^{*1}	A (rms)		17.1	28.5	37.1	54.2	71.4	85.7	117.8
Rotor inertia	kg·m ² (GD ² /4)		6.17×10^{-4}	1.12×10^{-3}	1.52×10^{-3}	2.23×10^{-3}	4.25×10^{-3}	6.07×10^{-3}	8.9×10^{-3}
Applicable load inertia	—		10 times the rotor inertia max. ^{*2}						
Torque constant ^{*1}	N·m/A		0.88	0.76	0.78	0.81	0.81	0.85	1.03
Power rate ^{*1}	kW/s		37.3	45.8	60	91.6	83.2	93.5	230
Mechanical time constant	ms		0.7	0.81	0.75	0.72	1	0.9	0.71
Electrical time constant	ms		18	19	21	20	24	32	34
Allowable radial load ^{*3}	N		490	490	490	784	784	784	1176
Allowable thrust load ^{*3}	N		196	196	196	343	343	343	490
Weight	Without brake	kg	Approx. 6.8	Approx. 8.5	Approx. 10.6	Approx. 14.6	Approx. 18.8	Approx. 25	Approx. 41
	With brake	kg	Approx. 8.7	Approx. 10.1	Approx. 12.5	Approx. 16.5	Approx. 21.3	Approx. 28.5	Approx. 45
Radiation shield dimensions (material)			275 × 260 × t15 (Al)			380 × 350 × t30 (Al)	470 × 440 × t30 (Al)		
Applicable Servo Drives (R88D-)			GT10H	GT15H	GT20H	GT30H	GT50H	GT50H	GT75H
Brake specifications	Brake inertia	kg·m ² (GD ² /4)	1.35×10^{-4}				4.25×10^{-4}	4.7×10^{-4}	4.7×10^{-4}
	Excitation voltage ^{*4}	V	24 VDC ±10%						
	Power consumption (at 20°C)	W	14	19	19	22	26	31	34
	Current consumption (at 20°C)	A	0.59	0.79	0.79	0.9	1.1	1.3	1.4
	Static friction torque	N·m	4.9 min.	13.7 min.	13.7 min.	16.1 min.	21.5 min.	24.5 min.	58.8 min.
	Attraction time ^{*5}	ms	80 max.	100 max.	100 max.	110 max.	90 max.	80 max.	150 max.
	Release time ^{*5}	ms	70 max.	50 max.	50 max.	50 max.	35 min.	25 min.	50 max.
	Backlash		1° (reference value)						
	Allowable work per braking	J	588	1176	1176	1170	1078	1372	1372
	Allowable total work	J	7.8×10^5	1.5×10^6	1.5×10^6	2.2×10^6	2.5×10^6	2.9×10^6	2.9×10^6
	Allowable angular acceleration	rad/s ²	10,000 max. (Speed of 900 r/min or more must not be changed in less than 10 ms)						
	Brake life	—	10,000,000 operations min.						
	Rating	—	Continuous						
	Insulation grade	—	Type F						

*1. These are the values when the Servomotor is combined with a Servo Drive at room temperature (20°C, 65%). The maximum momentary torque shown above indicates the standard value.

*2. Applicable Load Inertia:

- The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.
- If the dynamic brake is activated frequently with high load inertia, the dynamic brake resistor may burn. Do not repeatedly turn the Servomotor ON and OFF while the dynamic brake is enabled.

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



*4. This is an OFF brake. (It is reset when excitation voltage is applied).

*5. The operation time is the value (reference value) measured with a surge suppressor (CR50500 manufactured by Okaya Electric Industries Co., Ltd.).

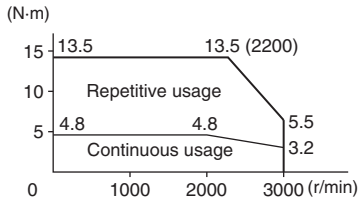
Torque and Rotation Speed Characteristics

2,000-r/min Cylindrical Servomotors

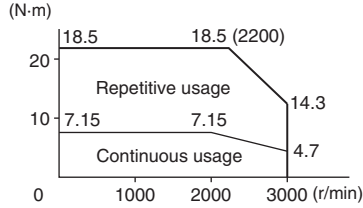
• 2,000-r/min Servomotors with 200-VAC Power Input

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

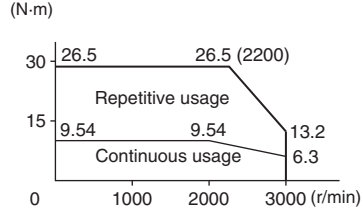
R88M-G1K020T (1 kW)



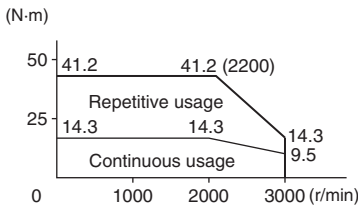
R88M-G1K520T (1.5 kW)



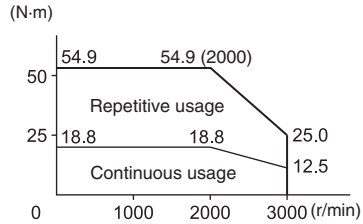
R88M-G2K020T (2 kW)



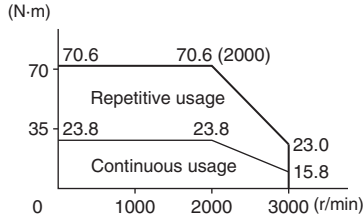
R88M-G3K020T (3 kW)



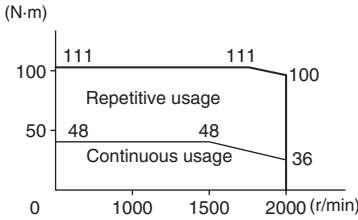
R88M-G4K020T (4 kW)



R88M-G5K020T (5 kW)



R88M-G7K520T (7.5 kW)



Servomotor Specifications (R88M-G)

Characteristics

1,000-r/min Cylindrical Servomotors

200-VAC Input Power

Model (R88M-)		Unit	G90010T	G2K010T	G3K010T	G4K510T	G6K010T	
Rated output ^{*1}		W	900	2000	3000	4500	6000	
Rated torque ^{*1}		N·m	8.62	19.1	28.4	42.9	57.2	
Rated rotation speed		r/min	1000					
Max. momentary rotation speed		r/min	2000					
Max. momentary torque ^{*1}		N·m	18.4	41.5	60	101	130	
Rated current ^{*1}		A (rms)	7.6	18.5	24	33	57.2	
Max. momentary current ^{*1}		A (rms)	17.1	44	57.1	84.2	121.4	
Rotor inertia		kg·m ² (GD ² /4)	1.12 × 10 ⁻³	3.55 × 10 ⁻³	5.57 × 10 ⁻³	8.09 × 10 ⁻³	9.9 × 10 ⁻³	
Applicable load inertia		—	10 times the rotor inertia max. ^{*2}					
Torque constant ^{*1}		N·m/A	1.13	1	1.1	1.3	1.22	
Power rate ^{*1}		kW/s	66.3	103	145	228	331	
Mechanical time constant		ms	0.88	0.97	0.74	0.7	0.65	
Electrical time constant		ms	20	25	30	31	46.2	
Allowable radial load ^{*3}		N	686	1176	1470	1470	1764	
Allowable thrust load ^{*3}		N	196	490	490	490	588	
Weight	Without brake	kg	Approx. 8.5	Approx. 17.5	Approx. 25	Approx. 34	Approx. 41	
	With brake	kg	Approx. 10	Approx. 21	Approx. 28.5	Approx. 39.5	Approx. 45	
Radiation shield dimensions (material)			275 × 260 × t15 (Al)		470 × 440 × t30 (Al)			
Applicable Servo Drives (R88D-)			GT15H	GT30H	GT50H	GT50H	GT75H	
Brake specifications	Brake inertia	kg·m ² (GD ² /4)	1.35 × 10 ⁻⁴	4.7 × 10 ⁻⁴	4.7 × 10 ⁻⁴	4.7 × 10 ⁻⁴	4.7 × 10 ⁻⁴	
	Excitation voltage ^{*4}	V	24 VDC ±10%					
	Power consumption (at 20°C)	W	19	31	34			
	Current consumption (at 20°C)	A	0.79	1.3	1.4			
	Static friction torque	N·m	13.7 min.	24.5 min.	58.8 min.			
	Attraction time ^{*5}	ms	100 max.	80 max.	150 max.			
	Release time ^{*5}	ms	50 max.	25 max.	50 max.			
	Backlash		1° (reference value)					
	Allowable work per braking	J	1176	1372				
	Allowable total work	J	1.6 × 10 ⁶	2.9 × 10 ⁶				
	Allowable angular acceleration	rad/s ²	10,000 max. (Speed of 900 r/min or more must not be changed in less than 10 ms)					
	Brake life	---	10,000,000 operations min.					
	Rating	---	Continuous					
Insulation grade	---	Type F						

*1. These are the values when the Servomotor is combined with a Servo Drive at room temperature (20°C, 65%). The maximum momentary torque shown above indicates the standard value.

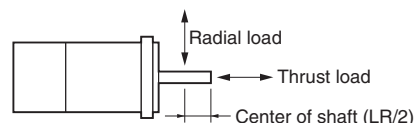
*2. Applicable Load Inertia:

- The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.
- If the dynamic brake is activated frequently with high load inertia, the dynamic brake resistor may burn. Do not repeatedly turn the Servomotor ON and OFF while the dynamic brake is enabled.

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

*4. This is an OFF brake. (It is reset when excitation voltage is applied).

*5. The operation time is the value (reference value) measured with a surge suppressor (CR50500 manufactured by Okaya Electric Industries Co., Ltd.).



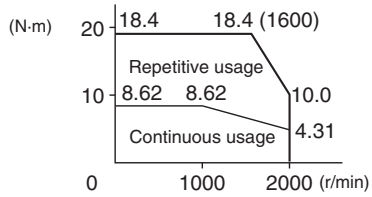
Torque and Rotation Speed Characteristics

1,000-r/min Cylindrical Servomotors

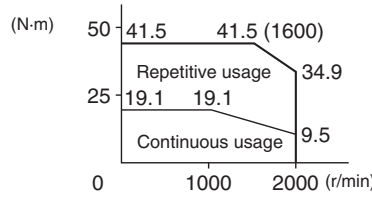
• 1,000-r/min Servomotors with 200-VAC Power Input

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

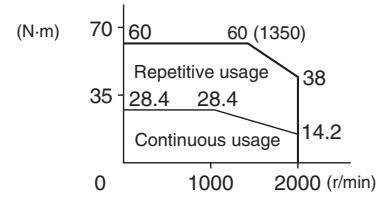
R88M-G90010T (900 W)



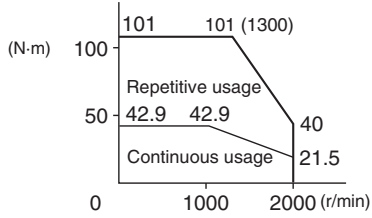
R88M-G2K010T (2 kW)



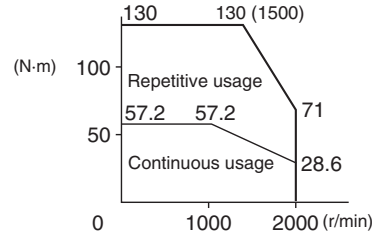
R88M-G3K010T (3 kW)



R88M-G4K510 (4.5 kW)



R88M-G6K010T (6 kW)



Decelerator Specifications

● Backlash: 3 Arcminutes Max.

Decelerators for Cylindrical Servomotors

Model			Rated rotation speed	Rated torque	Efficiency	Maximum momentary rotation speed	Maximum momentary torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N·m	%	r/min	N·m	kg·m ²	N	N	kg
50 W	1/5	R88G-HPG11A05100B	600	0.60	75	1000	1.68	5.00×10^{-7}	135	538	0.29
	1/9	R88G-HPG11A09050B	333	1.17	81	555	3.29	3.00×10^{-7}	161	642	0.29
	1/21	R88G-HPG14A21100B	143	2.18	65	238	6.13	5.00×10^{-6}	340	1358	1.04
	1/33	R88G-HPG14A33050B	91	3.73	71	151	10.5	4.40×10^{-6}	389	1555	1.04
	1/45	R88G-HPG14A45050B	67	5.09	71	111	14.3	4.40×10^{-6}	427	1707	1.04
100 W	1/5	R88G-HPG11A05100B	600	1.37	86	1000	3.8	5.00×10^{-7}	135	538	0.29
	1/11	R88G-HPG14A11100B	273	2.63	75	454	7.39	6.00×10^{-6}	280	1119	1.04
	1/21	R88G-HPG14A21100B	143	5.40	80	238	15.2	5.00×10^{-6}	340	1358	1.04
	1/33	R88G-HPG20A33100B	91	6.91	65	151	19.4	6.50×10^{-5}	916	3226	2.4
	1/45	R88G-HPG20A45100B	67	9.42	65	111	26.5	6.50×10^{-5}	1006	3541	2.4
200 W	1/5	R88G-HPG14A05200B	600	2.49	78	1000	6.93	2.07×10^{-5}	221	883	1.02
	1/11	R88G-HPG14A11200B	273	6.01	85	454	16.7	1.93×10^{-5}	280	1119	1.09
	1/21	R88G-HPG20A21200B	143	10.2	76	238	28.5	4.90×10^{-5}	800	2817	2.9
	1/33	R88G-HPG20A33200B	91	17.0	81	151	47.4	4.50×10^{-5}	916	3226	2.9
	1/45	R88G-HPG20A45200B	67	23.2	81	111	64.6	4.50×10^{-5}	1006	3541	2.9
400 W	1/5	R88G-HPG14A05400B	600	5.66	87	1000	16.0 (15.7)	2.07×10^{-5}	221	883	1.09
	1/11	R88G-HPG20A11400B	273	11.73	82	454	33.1 (32.5)	5.70×10^{-5}	659	2320	2.9
	1/21	R88G-HPG20A21400B	143	23.56	86	238	66.5 (65.2)	4.90×10^{-5}	800	2547	2.9
	1/33	R88G-HPG32A33400B	91	34.79	81	151	98.2 (96.3)	6.20×10^{-5}	1565	6240	7.5
	1/45	R88G-HPG32A45400B	67	47.44	81	111	133.9 (131.4)	6.10×10^{-5}	1718	6848	7.5
750 W	1/5	R88G-HPG20A05750B	600	9.94	83	1000	29.2	6.80×10^{-5}	520	1832	2.9
	1/11	R88G-HPG20A11750B	273	23.23	88	454	68.1	6.00×10^{-5}	659	2320	3.1
	1/21	R88G-HPG32A21750B	143	42.34	84	238	124.3	3.00×10^{-4}	1367	5448	7.8
	1/33	R88G-HPG32A33750B	91	69.70	88	151	204.7	2.70×10^{-4}	1565	6240	7.8
	1/45	R88G-HPG32A45750B	67	95.04	88	111	279.2	2.70×10^{-4}	1718	6848	7.8

Note: 1. The values inside parentheses () are for 100-V Servomotors.

Note: 2. The Decelerator inertia is the Servomotor shaft conversion value.

Note: 3. The protective structure for Servomotors with Decelerators satisfies IP44.

Note: 4. The allowable radial load is the value at the LR/2 position.

Note: 5. The standard models have a straight shaft. Models with a key and tap are indicated by adding "J" to the end of the model number (the suffix in the box).

Decelerator for Flat Servomotors

Model			Rated rotation speed	Rated torque	Efficiency	Maximum momentary rotation speed	Maximum momentary torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N·m	%	r/min	N·m	kg·m ²	N	N	kg
100 W	1/5	R88G-HPG11A05100PB	600	1.37	85	1000	3.67 (3.59)	5.00×10^{-7}	135	538	0.34
	1/11	R88G-HPG14A11100PB	273	2.63	75	454	7.06 (6.89)	6.00×10^{-6}	280	1119	1.04
	1/21	R88G-HPG14A21100PB	143	5.40	80	238	14.5 (14.2)	5.00×10^{-6}	340	1358	1.04
	1/33	R88G-HPG20A33100PB	91	6.91	65	151	18.6 (18.1)	4.50×10^{-5}	916	3226	2.9
	1/45	R88G-HPG20A45100PB	67	9.42	65	111	25.3 (24.7)	4.50×10^{-5}	1006	3541	2.9
200 W	1/5	R88G-HPG14A05200PB	600	2.49	78	1000	7.01	2.07×10^{-5}	221	883	0.99
	1/11	R88G-HPG20A11200PB	273	4.75	68	454	13.4	5.80×10^{-5}	659	2320	3.1
	1/21	R88G-HPG20A21200PB	143	10.2	76	238	28.8	4.90×10^{-5}	800	2817	3.1
	1/33	R88G-HPG20A33200PB	91	17.0	81	151	47.9	4.50×10^{-5}	916	3226	3.1
	1/45	R88G-HPG20A45200PB	67	23.2	81	111	65.4	4.50×10^{-5}	1006	3541	3.1
400 W	1/5	R88G-HPG20A05400PB	600	4.67	72	1000 (900)	13.1 (12.9)	7.10×10^{-5}	520	1832	3.1
	1/11	R88G-HPG20A11400PB	273	11.7	82	454 (409)	32.9 (32.4)	5.80×10^{-5}	659	2320	3.1
	1/21	R88G-HPG20A21400PB	143	23.5	86	238 (214)	66.2 (65.2)	4.90×10^{-5}	800	2817	3.1
	1/33	R88G-HPG32A33400PB	91	34.7	81	151 (136)	97.6 (96.2)	2.80×10^{-4}	1565	6240	7.8
	1/45	R88G-HPG32A45400PB	67	47.4	81	111 (100)	133.0 (131.2)	2.80×10^{-4}	1718	6848	7.8

Note: 1. The values inside parentheses () are for 100-V Servomotors.

Note: 2. The Decelerator inertia is the Servomotor shaft conversion value.

Note: 3. The protective structure for Servomotors with Decelerators satisfies IP44.

Note: 4. The allowable radial load is the value at the LR/2 position.

Note: 5. The standard models have a straight shaft. Models with a key and tap are indicated by adding "J" to the end of the model number (the suffix in the box).

● Backlash: 15 Arcminutes Max.

Decelerators for Cylindrical Servomotors

Model			Rated rotation speed	Rated torque	Efficiency	Maximum momentary rotation speed	Maximum momentary torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N·m	%	r/min	N·m	kg·m ²	N	N	kg
50 W	1/5	R88G-VRSF05B100CJ	600	0.52	65	1000	1.46	4.00×10^{-6}	392	196	0.55
	1/9	R88G-VRSF09B100CJ	333	0.93	65	556	2.63	3.50×10^{-6}	441	220	0.55
	1/15	R88G-VRSF15B100CJ	200	1.67	70	333	4.73	3.50×10^{-6}	588	294	0.70
	1/25	R88G-VRSF25B100CJ	120	2.78	70	200	7.88	3.25×10^{-6}	686	343	0.70
100 W	1/5	R88G-VRSF05B100CJ	600	1.19	75	1000	3.38	4.00×10^{-6}	392	196	0.55
	1/9	R88G-VRSF09B100CJ	333	2.29	80	556	6.48	3.50×10^{-6}	441	220	0.55
	1/15	R88G-VRSF15B100CJ	200	3.81	80	333	10.8	3.50×10^{-6}	588	294	0.70
	1/25	R88G-VRSF25B100CJ	120	6.36	80	200	18.0	3.25×10^{-6}	686	343	0.70
200 W	1/5	R88G-VRSF05B200CJ	600	2.70	85	1000	7.57	1.18×10^{-5}	392	196	0.72
	1/9	R88G-VRSF09C200CJ	333	3.77	66	556	10.6	2.75×10^{-5}	931	465	1.70
	1/15	R88G-VRSF15C200CJ	200	6.29	66	333	17.6	3.00×10^{-5}	1176	588	2.10
	1/25	R88G-VRSF25C200CJ	120	11.1	70	200	31.2	2.88×10^{-5}	1323	661	2.10
400 W	1/5	R88G-VRSF05C400CJ	600	5.40	85	1000	15.6 (15.3)	3.63×10^{-5}	784	392	1.70
	1/9	R88G-VRSF09C400CJ	333	9.50	83	556	27.4 (26.8)	2.75×10^{-5}	931	465	1.70
	1/15	R88G-VRSF15C400CJ	200	15.8	83	333	45.7 (44.8)	3.00×10^{-5}	1176	588	2.10
	1/25	R88G-VRSF25C400CJ	120	26.4	83	200	76.1 (74.7)	2.88×10^{-5}	1323	661	2.10
750 W	1/5	R88G-VRSF05C750CJ	600	10.7	90	1000	31.7	7.13×10^{-5}	784	392	2.10
	1/9	R88G-VRSF09D750CJ	333	18.2	85	556	53.9	6.50×10^{-5}	1176	588	3.40
	1/15	R88G-VRSF15D750CJ	200	30.4	85	333	89.9	7.00×10^{-5}	1372	686	3.80
	1/25	R88G-VRSF25D750CJ	120	50.7	85	200	149.8	6.80×10^{-5}	1617	808	3.80

Note: 1. The values inside parentheses () are for 100-V Servomotors.

Note: 2. The Decelerator inertia is the Servomotor shaft conversion value.

Note: 3. The protective structure for Servomotors with Decelerators satisfies IP44.

Note: 4. The allowable radial load is the value at the LR/2 position.

Note: 5. The standard models have a straight shaft with a key.

Decelerators for Flat Servomotors

Model			Rated rotation speed	Rated torque	Efficiency	Maximum momentary rotation speed	Maximum momentary torque	Decelerator inertia	Allowable radial load	Allowable thrust load	Weight
			r/min	N·m	%	r/min	N·m	kg·m ²	N	N	kg
100 W	1/5	R88G-VRSF05B100PCJ	600	1.19	75	1000	3.15	4.00×10^{-6}	392	196	0.72
	1/9	R88G-VRSF09B100PCJ	333	2.29	80	556	6.048	3.50×10^{-6}	441	220	0.72
	1/15	R88G-VRSF15B100PCJ	200	3.81	80	333	10.08	3.50×10^{-6}	588	294	0.87
	1/25	R88G-VRSF25B100PCJ	120	6.36	80	200	16.8	3.25×10^{-6}	686	343	0.87
200 W	1/5	R88G-VRSF05B200PCJ	600	2.70	85	1000	7.65	1.18×10^{-5}	392	196	0.85
	1/9	R88G-VRSF09C200PCJ	333	3.77	66	556	10.692	2.75×10^{-5}	931	465	1.80
	1/15	R88G-VRSF15C200PCJ	200	6.29	66	333	17.82	3.00×10^{-5}	1176	588	2.20
	1/25	R88G-VRSF25C200PCJ	120	11.1	70	200	31.5	2.88×10^{-5}	1323	661	2.20
400 W	1/5	R88G-VRSF05C400PCJ	600	5.40	85	1000 (900)	15.5 (15.3)	3.63×10^{-5}	784	392	1.80
	1/9	R88G-VRSF09C400PCJ	333	9.50	83	556 (500)	27.3 (26.9)	2.75×10^{-5}	931	465	1.80
	1/15	R88G-VRSF15C400PCJ	200	15.8	83	333 (300)	45.4 (44.8)	3.00×10^{-5}	1176	588	2.20
	1/25	R88G-VRSF25C400PCJ	120	26.4	83	200 (180)	75.7 (74.7)	2.88×10^{-5}	1323	661	2.20

Note: 1. The values inside parentheses () are for 100-V Servomotors.

Note: 2. The Decelerator inertia is the Servomotor shaft conversion value.

Note: 3. The protective structure for Servomotors with Decelerators satisfies IP44.

Note: 4. The allowable radial load is the value at the LR/2 position.

Note: 5. The standard models have a straight shaft with a key.

Encoder, External Regeneration Resistors, Reactor and Parameter Unit Specifications

Encoder Specifications

Incremental Encoders

Item	Specifications
Encoder system	Optical encoder
No. of output pulses	Phases A and B: 2,500 pulses/rotation, Phase Z: 1 pulse/rotation
Power supply voltage	5 VDC $\pm 5\%$
Power supply current	180 mA (max.)
Output signals	+S, -S
Output interface	RS-485 compliance

Absolute Encoders

Item	Specifications
Encoder system	Optical encoder
	17 bits
No. of output pulses	Phases A and B: 32,768 pulses/rotation, Phase Z: 1 pulse/rotation
Maximum rotations	-32,768 to +32,767 rotations or 0 to 65,534 rotations
Power supply voltage	5 VDC $\pm 5\%$
Power supply current	110 mA (max.)
Applicable battery voltage	3.6 VDC
Current consumption of battery	180 μ A for a maximum of 5 s right after power interruption 100 μ A for operation during power interruption 3.6 μ A when power is supplied to Servo Drive
Output signals	+S, -S
Output interface	RS-485 compliance

External Regeneration Resistors Specifications

Model	Resistance	Nominal capacity	Regeneration absorption for 120°C temperature rise	Heat radiation condition	Thermal switch output specifications
R88A-RR08050S	50 Ω	80 W	20 W	Aluminum 250 $\times$ 250, Thickness: 3.0	Operating temperature: 150°C $\pm 5\%$, NC contact, Rated output: 30 VDC, 50 mA max.
R88A-RR080100S	100 Ω				
R88A-RR22047S	47 Ω	220 W	70 W	Aluminum 350 $\times$ 350, Thickness: 3.0	Operating temperature: 170°C $\pm 5\%$, NC contact, Rated output: 3 A

Reactor Specifications

Servo Drive	Reactor				Reactor type
	Model	Rated current	Inductance	Weight	
R88D-GTA5L R88D-GT01H	3G3AX-DL2002	1.6 A	21.4 mH	Approx. 0.8 kg	Single-phase
R88D-GT01L R88D-GT02H	3G3AX-DL2004	3.2 A	10.7 mH	Approx. 1.0 kg	Single-phase
R88D-GT02L R88D-GT04H	3G3AX-DL2007	6.1 A	6.75 mH	Approx. 1.3 kg	Single-phase
R88D-GT04L R88D-GT08H R88D-GT10H	3G3AX-DL2015	9.3 A	3.51 mH	Approx. 1.6 kg	Single-phase
R88D-GT15H	3G3AX-DL2022	13.8 A	2.51 mH	Approx. 2.1 kg	Single-phase
R88D-GT08H R88D-GT10H R88D-GT15H	3G3AX-AL2025	10.0 A	2.8 mH	Approx. 2.8 kg	Three-phase
R88D-GT20H R88D-GT30H	3G3AX-AL2055	20.0 A	0.88 mH	Approx. 4.0 kg	Three-phase
R88D-GT50H	3G3AX-AL2110	34.0 A	0.35 mH	Approx. 5.0 kg	Three-phase
R88D-GT75H	3G3AX-AL2220	67.0 A	0.18 mH	Approx. 10.0 kg	Three-phase