R88M-K□, R88M-KH□

Accurax G5 servo motors

Servo family for accurate motion control.
Power range extended up to 15 kW.

- Standard and high inertia servo motor models
- Peak torque 300% of rated torque during 3 seconds or more depending on model
- High resolution serial encoder provided by 20 bits encoder
- IP67 protection in all models
- Ultra-light and compact size motor
- Low speed ripple and low torque ripple due to low torque cogging
- Various shaft, brake and seal options

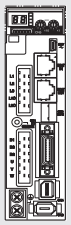
Ratings

- 230 VAC from 50 W to 1.5 kW (rated torque from 0.16 to 8.59 Nm)
- 400 VAC from 400 W to 15 kW (rated torque from 1.91 Nm to 95.5 Nm)

System configuration

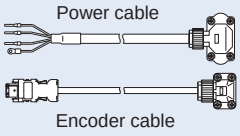
(Refer to servo drive chapter)

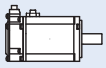
Servo drive options



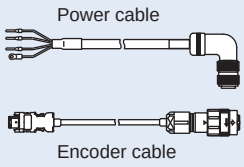
Accurax G5 servo drives
EtherCAT, ML2 and
Analogue/pulse models

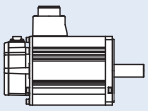
Standard servo motors



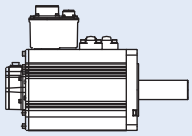


3000 rpm (50 W to 750 W)



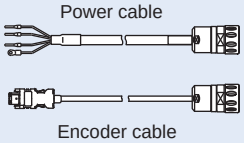


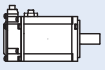
3000 rpm (750 W to 5 kW)
2000 rpm (400 W to 5 kW)
1000 rpm (900 W to 3 kW)



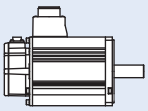
1500 rpm (7.5 kW to 15 kW)
1000 rpm (4.5 kW to 6 kW)

High inertia servo motors

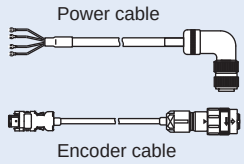


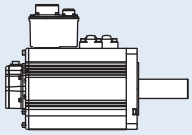


3000 rpm (200 W to 750 W)



2000 rpm (1 kW to 5 kW)





1500 rpm (7.5 kW)

Servo motor / servo drive combination

Standard servo motors

Accurax G5 rotary servo motor						Accurax G5 servo drive models		
	Voltage	Speed	Rated torque	Capacity	Model	EtherCAT	Analog/pulse	MECHATROLINK-II
	230 V	3000 min^{-1}	0.16 Nm	50 W	R88M-K05030(H/T)-□	R88D-KN01H-ECT	R88D-KT01H	R88D-KN01H-ML2
			0.32 Nm	100 W	R88M-K10030(H/T)-□	R88D-KN01H-ECT	R88D-KT01H	R88D-KN01H-ML2
			0.64 Nm	200 W	R88M-K20030(H/T)-□	R88D-KN02H-ECT	R88D-KT02H	R88D-KN02H-ML2
			1.3 Nm	400 W	R88M-K40030(H/T)-□	R88D-KN04H-ECT	R88D-KT04H	R88D-KN04H-ML2
			2.4 Nm	750 W	R88M-K75030(H/T)-□	R88D-KN08H-ECT	R88D-KT08H	R88D-KN08H-ML2
			3.18 Nm	1000 W	R88M-K1K030(H/T)-□	R88D-KN15H-ECT	R88D-KT15H	R88D-KN15H-ML2
			4.77 Nm	1500 W	R88M-K1K530(H/T)-□	R88D-KN15H-ECT	R88D-KT15H	R88D-KN15H-ML2
	400 V		2.39 Nm	750 W	R88M-K75030(F/C)-□	R88D-KN10F-ECT	R88D-KT10F	R88D-KN10F-ML2
			3.18 Nm	1000 W	R88M-K1K030(F/C)-□	R88D-KN15F-ECT	R88D-KT15F	R88D-KN15F-ML2
			4.77 Nm	1500 W	R88M-K1K530(F/C)-□	R88D-KN15F-ECT	R88D-KT15F	R88D-KN15F-ML2
			6.37 Nm	2000 W	R88M-K2K030(F/C)-□	R88D-KN20F-ECT	R88D-KT20F	R88D-KN20F-ML2
			9.55 Nm	3000 W	R88M-K3K030(F/C)-□	R88D-KN30F-ECT	R88D-KT30F	R88D-KN30F-ML2
230 V (1 kW to 1.5 kW) 400 V (400 W to 5 kW)			12.7 Nm	4000 W	R88M-K4K030(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
			15.9 Nm	5000 W	R88M-K5K030(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
	230 V	2000 min^{-1}	4.77 Nm	1000 W	R88M-K1K020(H/T)-□	R88D-KN10H-ECT	R88D-KT10H	R88D-KN10H-ML2
			7.16 Nm	1500 W	R88M-K1K520(H/T)-□	R88D-KN15H-ECT	R88D-KT15H	R88D-KN15H-ML2
	400 V		1.91 Nm	400 W	R88M-K40020(F/C)-□	R88D-KN06F-ECT	R88D-KT06F	R88D-KN06F-ML2
			2.86 Nm	600 W	R88M-K60020(F/C)-□	R88D-KN06F-ECT	R88D-KT06F	R88D-KN06F-ML2
			4.77 Nm	1000 W	R88M-K1K020(F/C)-□	R88D-KN10F-ECT	R88D-KT10F	R88D-KN10F-ML2
			7.16 Nm	1500 W	R88M-K1K520(F/C)-□	R88D-KN15F-ECT	R88D-KT15F	R88D-KN15F-ML2
			9.55 Nm	2000 W	R88M-K2K020(F/C)-□	R88D-KN20F-ECT	R88D-KT20F	R88D-KN20F-ML2
			14.3 Nm	3000 W	R88M-K3K020(F/C)-□	R88D-KN30F-ECT	R88D-KT30F	R88D-KN30F-ML2
7.5 KW to 15 kW			19.1 Nm	4000 W	R88M-K4K020(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
			23.9 Nm	5000 W	R88M-K5K020(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
	400 V	1500 min^{-1}	47.8 Nm	7500 W	R88M-K7K515C-□	R88D-KN75F-ECT	R88D-KT75F	–
			70.0 Nm	11000 W	R88M-K11K015C-□	R88D-KN150F-ECT	R88D-KT150F	–
			95.5 Nm	15000 W	R88M-K15K015C-□	R88D-KN150F-ECT	R88D-KT150F	–
	230 V	1000 min^{-1}	8.59 Nm	900 W	R88M-K90010(H/T)-□	R88D-KN15H-ECT	R88D-KT15H	R88D-KN15H-ML2
	400 V		8.59 Nm	900 W	R88M-K90010(F/C)-□	R88D-KN15F-ECT	R88D-KT15F	R88D-KN15F-ML2
			19.1 Nm	2000 W	R88M-K2K010(F/C)-□	R88D-KN30F-ECT	R88D-KT30F	R88D-KN30F-ML2
			28.7 Nm	3000 W	R88M-K3K010(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
			43.0 Nm	4500 W	R88M-K4K510C-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
			57.3 Nm	6000 W	R88M-K6K010C-□	R88D-KN75F-ECT	R88D-KT75F	–

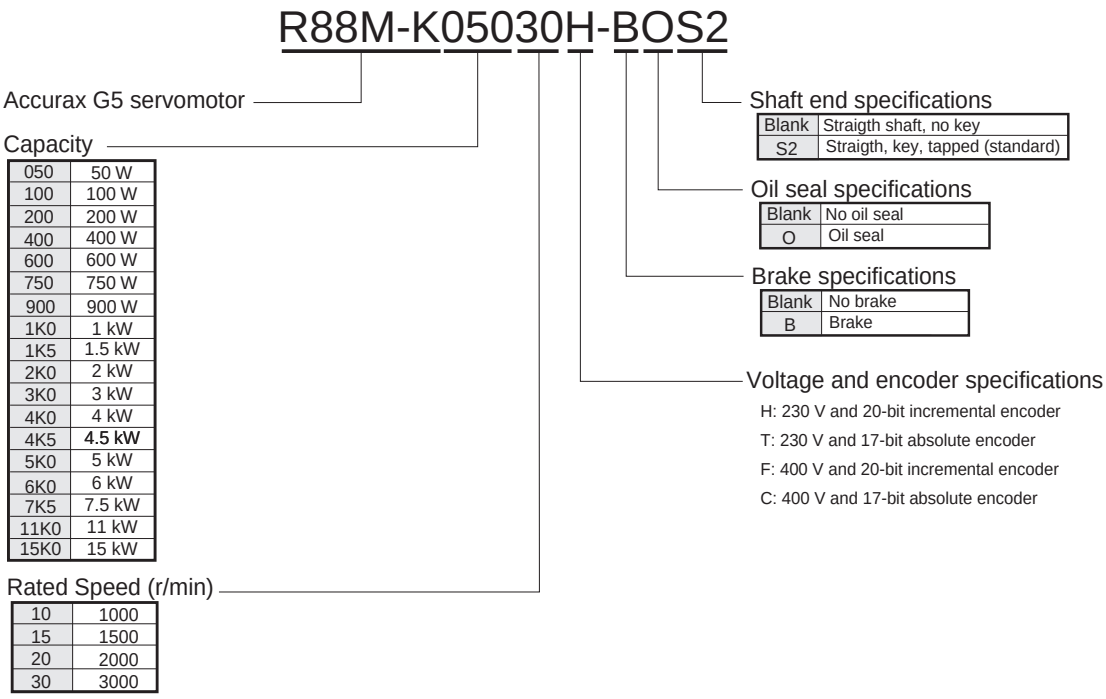
High inertia servo motors

Accurax G5 rotary servo motor						Accurax G5 servo drive models		
	Voltage	Speed	Rated torque	Capacity	Model	EtherCAT	Analog/pulse	MECHATROLINK-II
	230 V	3000 min^{-1}	0.64 Nm	200 W	R88M-KH20030(H/T)-□	R88D-KN02H-ECT	R88D-KT02H	R88D-KN02H-ML2
			1.3 Nm	400 W	R88M-KH40030(H/T)-□	R88D-KN04H-ECT	R88D-KT04H	R88D-KN04H-ML2
			2.4 Nm	750 W	R88M-KH75030(H/T)-□	R88D-KN08H-ECT	R88D-KT08H	R88D-KN08H-ML2
	400 V	2000 min^{-1}	4.77 Nm	1000 W	R88M-KH1K020(F/C)-□	R88D-KN10F-ECT	R88D-KT10F	R88D-KN10F-ML2
			7.16 Nm	1500 W	R88M-KH1K520(F/C)-□	R88D-KN15F-ECT	R88D-KT15F	R88D-KN15F-ML2
			9.55 Nm	2000 W	R88M-KH2K020(F/C)-□	R88D-KN20F-ECT	R88D-KT20F	R88D-KN20F-ML2
1 kW to 5 kW			14.3 Nm	3000 W	R88M-KH3K020(F/C)-□	R88D-KN30F-ECT	R88D-KT30F	R88D-KN30F-ML2
			19.1 Nm	4000 W	R88M-KH4K020(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
			23.9 Nm	5000 W	R88M-KH5K020(F/C)-□	R88D-KN50F-ECT	R88D-KT50F	R88D-KN50F-ML2
7.5 KW		1500 min^{-1}	47.8 Nm	7500 W	R88M-KH7K515C-□	R88D-KN75F-ECT	R88D-KT75F	–

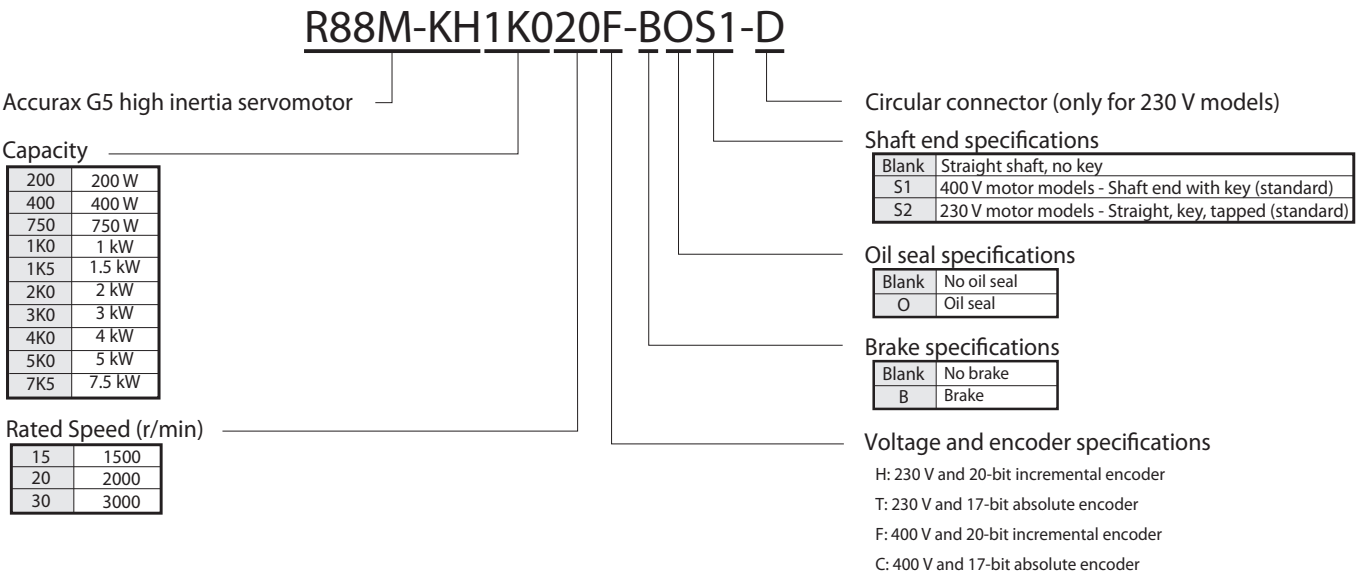
Note: 1. For servo motor and cables part numbers refer to ordering information at the end of this chapter
2. Refer to the servo drive chapter for drive options selection and detailed specifications

Servo motor type designation

Standard servo motors



High inertia servo motors



Servo motor specifications

Standard servo motors 3000 r/min, 230 V

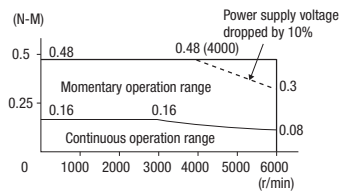
Ratings and specifications

Voltage			230 V						
Servo motor model R88M-K□		20-bit incremental encoder	05030H-□	10030H-□	20030H-□	40030H-□	75030H-□	1K030H-□	1K530H-□
		17-bit absolute encoder	05030T-□	10030T-□	20030T-□	40030T-□	75030T-□	1K030T-□	1K530T-□
Rated output		W	50	100	200	400	750	1000	1500
Rated torque		N·m	0.16	0.32	0.64	1.3	2.4	3.18	4.77
Instantaneous peak torque		N·m	0.48	0.95	1.91	3.8	7.1	9.55	14.3
Rated current		A (rms)	1.1	1.1	1.5	2.4	4.1	6.6	8.2
Instantaneous max. current		A (rms)	4.7	4.7	6.5	10.2	17.4	28	35
Rated speed		min^{-1}	3000						
Max. speed		min^{-1}	6000					5000	
Torque constant		N·m/A	0.11±10%	0.21±10%	0.31±10%	0.39±10%	0.42±10%	0.37	0.45
Rotor moment of inertia (JM)		$kg·m^2×10^{-4}$ (without brake)	0.025	0.051	0.14	0.26	0.87	2.03	2.84
		$kg·m^2×10^{-4}$ (with brake)	0.027	0.054	0.16	0.28	0.97	2.35	3.17
Allowable load moment of inertia (JL)		Multiple of (JM)	30*1				20*1	15*1	
Rated power rate		kW/s (without brake)	10.1	19.9	29.0	62.4	65.6	49.8	80.1
		kW/s (with brake)	9.4	18.8	25.4	58	58.8	43	71.8
Allowable radial load		N	68		245		490		
Allowable thrust load		N	58		98		196		
Approx. mass		kg (without brake)	0.32	0.47	0.82	1.2	2.3	3.5	4.4
		kg (with brake)	0.53	0.68	1.3	1.7	3.1	4.5	5.4
Brake specifications	Rated voltage		24 VDC ±10%						
	Holding brake moment of inertia J	$kg·m^2×10^{-4}$	0.002		0.0018		0.33		
	Power consumption (at 20°C)	W	7		9		17	19	
	Current consumption (at 20°C)	A	0.3		0.36		0.70±10%	0.81±10%	
	Static friction torque	N.m (minimum)	0.29		1.27		2.5	7.8	
	Rise time for holding torque	ms (max.)	35		50				
	Release time	ms (max)	20		15				
Basic specifications	Time Rating		Continuous						
	Insulation class		Type B					Type F	
	Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C						
	Ambient operating/ storage humidity		20% to 80% (non-condensing)					20% to 85% (non-condensing)	
	Vibration class		V-15						
	Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal						
	Enclosure		Totally-enclosed, self-cooling, IP67 (excluding shaft opening)						
	Vibration resistance		Vibration acceleration 49 m/s^2						
	Mounting		Flange-mounted						

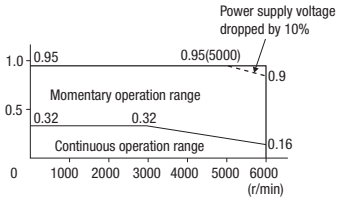
*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

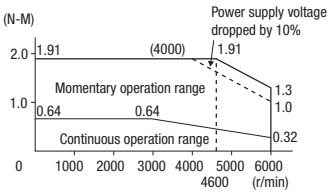
R88M-K05030H/T (50 W)



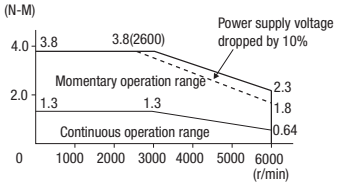
R88M-K10030H/T (100 W)



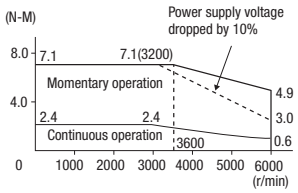
R88M-K20030H/T (200 W)



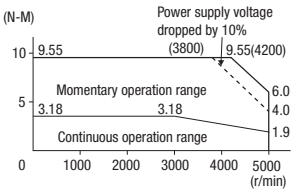
R88M-K40030H/T (400 W)



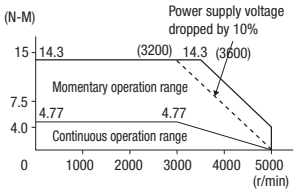
R88M-K75030H/T (750 W)



R88M-K1K030H/T (1 kW)



R88M-K1K530H/T (1.5 kW)



Standard servo motors 3000 r/min, 400 V

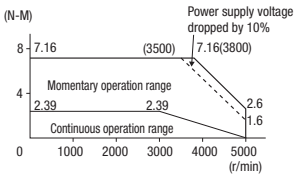
Ratings and specifications

Voltage			400 V						
Servo motor model R88M-K□		20-bit incremental encoder	75030F-□	1K030F-□	1K530F-□	2K030F-□	3K030F-□	4K030F-□	5K030F-□
		17-bit absolute encoder	75030C-□	1K030C-□	1K530C-□	2K030C-□	3K030C-□	4K030C-□	5K030C-□
Rated output		W	750	1000	1500	2000	3000	4000	5000
Rated torque		N·m	2.39	3.18	4.77	6.37	9.55	12.7	15.9
Instantaneous peak torque		N·m	7.16	9.55	14.3	19.1	28.6	38.2	47.7
Rated current		A (rms)	2.4	3.3	4.2	5.7	9.2	9.9	12
Instantaneous max. current		A (rms)	10	14	18	24	39	42	51
Rated speed		min^{-1}	3000						
Max. speed		min^{-1}	5000					4500	
Torque constant		N·m/A	0.78	0.75	0.89	0.87	0.81	0.98	
Rotor moment of inertia (JM)		$kg·m^2×10^{-4}$ (without brake)	1.61	2.03	2.84	3.68	6.5	12.9	17.4
		$kg·m^2×10^{-4}$ (with brake)	1.93	2.35	3.17	4.01	7.85	14.2	18.6
Allowable load moment of inertia (JL)		Multiple of (JM)	20*1	15*1					
Rated power rate		kW/s (without brake)	35.5	49.8	80.1	110	140	126	146
		kW/s (with brake)	29.6	43	71.8	101	116	114	136
Allowable radial load		N	490					784	
Allowable thrust load		N	196					343	
Approx. mass		kg (without brake)	3.1	3.5	4.4	5.3	8.3	11	14
		kg (with brake)	4.1	4.5	5.4	6.3	9.4	12.6	16
Brake specifications	Rated voltage		24 VDC ±10%						
	Holding brake moment of inertia J	$kg·m^2×10^{-4}$	0.33						1.35
	Power consumption (at 20°C)	W	17	19				22	
	Current consumption (at 20°C)	A	0.70±10%	0.81±10%				0.90±10%	
	Static friction torque	N.m (minimum)	2.5	7.8			11.8	16.1	
	Rise time for holding torque	ms (max.)	50					110	
	Release time	ms (max)	15					50	
Basic specifications	Time Rating		Continuous						
	Insulation class		Type F						
	Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C						
	Ambient operating/ storage humidity		20% to 85% (non-condensing)						
	Vibration class		V-15						
	Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal						
	Enclosure		Totally-enclosed, self-cooling, IP67(excluding shaft opening)						
	Vibration resistance		Vibration acceleration 49 m/s²						
	Mounting		Flange-mounted						

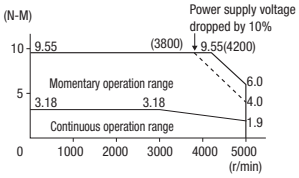
*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

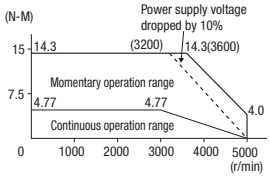
R88M-K75030F/C (750 W)



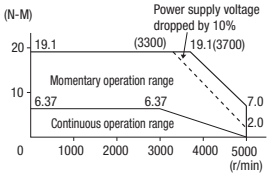
R88M-K1K030F/C (1 kW)



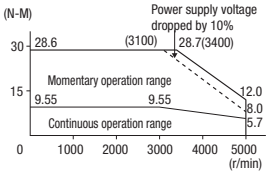
R88M-K1K530F/C (1.5 kW)



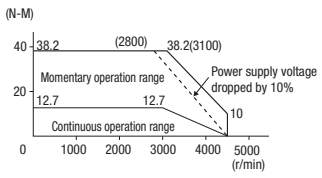
R88M-K2K030F/C (2 kW)



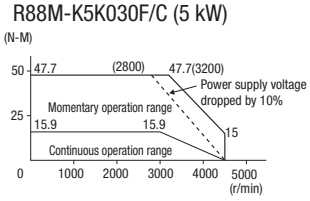
R88M-K3K030F/C (3 kW)



R88M-K4K030F/C (4 kW)



R88M-K5K030F/C (5 kW)



Standard servo motors 2000 r/min, 230 V/400 V

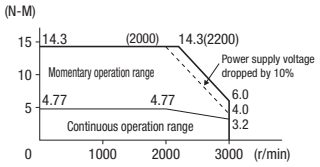
Ratings and specifications

Voltage			230 V		400 V							
Servo motor model R88M-K□		20-bit incremental encoder	1K020H-□	1K520H-□	40020F-□	60020F-□	1K020F-□	1K520F-□	2K020F-□	3K020F-□	4K020F-□	5K020F-□
		17-bit absolute encoder	1K020T-□	1K520T-□	40020C-□	60020C-□	1K020C-□	1K520C-□	2K020C-□	3K020C-□	4K020C-□	5K020C-□
Rated output		W	1000	1500	400	600	1000	1500	2000	3000	4000	5000
Rated torque		N·m	4.77	7.16	1.91	2.86	4.77	7.16	9.55	14.3	19.1	23.9
Instantaneous peak torque		N·m	14.3	21.5	5.73	8.59	14.3	21.5	28.7	43	57.3	71.6
Rated current		A (rms)	5.7	9.4	1.2	1.5	2.8	4.7	5.9	8.7	10.6	13
Instantaneous max. current		A (rms)	24	40	4.9	6.5	12	20	25	37	45	55
Rated speed		min^{-1}	2000									
Max. speed		min^{-1}	3000									
Torque constant		N·m/A	0.63	0.58	1.27	1.38	1.27	1.16	1.27	1.18	1.40	1.46
Rotor moment of inertia (JM)		$kg·m^2×10^{-4}$ (without brake)	4.60	6.70	1.61	2.03	4.60	6.70	8.72	12.9	37.6	48
		$kg·m^2×10^{-4}$ (with brake)	5.90	7.99	1.90	2.35	5.90	7.99	10	14.2	38.6	48.8
Max. load moment of inertia (JL)		Multiple of (JM)	10*1									
Rated power rate		kW/s (without brake)	49.5	76.5	22.7	40.3	49.5	76.5	105	159	97.1	119
		kW/s (with brake)	38.6	64.2	19.2	34.8	38.6	64.2	91.2	144	94.5	117
Allowable radial load		N	490							784		
Allowable thrust load		N	196							343		
Approx. mass		kg (without brake)	5.2	6.7	3.1	3.5	5.2	6.7	8	11	15.5	18.6
		kg (with brake)	6.7	8.2	4.1	4.5	6.7	8.2	9.5	12.6	18.7	21.8
Brake specifications	Rated voltage		24VDC ±10%									
	Holding brake moment inertia	(J) $kg·m^2×10^{-4}$	1.35								4.7	
	Power consumption (20°C)	W	14	19	17		14	19		22	31	
	Current consumption (20°C)	A	0.59±10%	0.79±10%	0.70 ±10%		0.59±10%	0.79 ±10%		0.90±10%	1.3±10%	1.3 ±-10%
	Static friction torque	N.m (minimum)	4.9	13.7	2.5		4.9	13.7		16.2	24.5	
	Rise time for holding torque	ms (max.)	80	100	50		80	100		110	80	
	Release time	ms (max)	70	50	15		70	50			25	
Basic specifications	Time Rating		Continuous									
	Insulation class		Type F									
	Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C									
	Ambient operating/ storage humidity		20% to 85% (non-condensing)									
	Vibration class		V-15									
	Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal									
	Enclosure		Totally-enclosed, self-cooling, IP67 (excluding shaft opening)									
	Vibration resistance		Vibration acceleration 49 m/s²									
	Mounting		Flange-mounted									

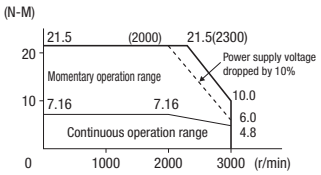
*1. Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

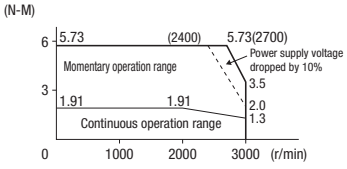
R88M-K1K020H/T (230V, 1 kW)



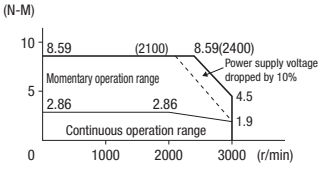
R88M-K1K520H/T (230V, 1.5 kW)



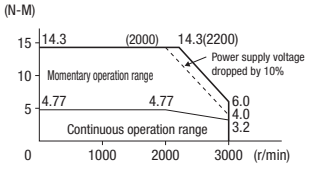
R88M-K40020F/C (400V, 400 W)



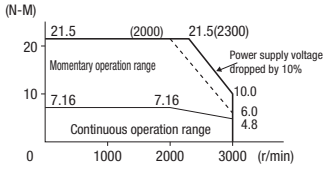
R88M-K60020F/C (400V, 600 W)



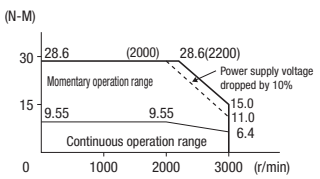
R88M-K1K020F/C (400V, 1 kW)



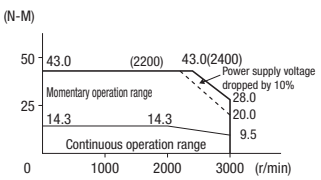
R88M-K1K520F/C (400V, 1.5 kW)



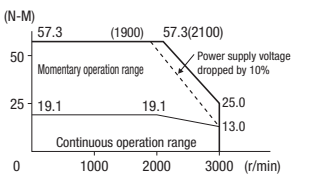
R88M-K2K020F/C (400V, 2 kW)



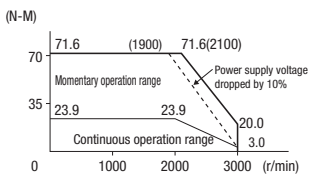
R88M-K3K020F/C (400V, 3 kW)



R88M-K4K020F/C (400V, 4 kW)



R88M-K5K020F/C (400V, 5 kW)



Standard servo motors 1500 r/min, 400 V

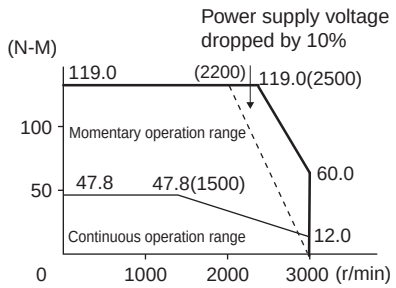
Ratings and specifications

Applied voltage		400 V		
Servo motor model R88M-K□	**17-bit absolute encoder**	**7K515C-□**	**11K015C-□**	**15K015C-□**
Rated output	W	7500	11000	15000
Rated torque	N·m	47.8	70.0	95.5
Instantaneous peak torque	N·m	119.0	175.0	224.0
Rated current	A (rms)	22.0	27.1	33.1
Instantaneous max. current	A (rms)	83	101	118
Rated speed	min^{-1}	1500		
Max. speed	min^{-1}	3000	2000	
Torque constant	N·m/A	1.54	1.84	2.10
Rotor moment of inertia (JM)	$kg·m^2×10^{-4}$ (without brake)	101	212	302
	$kg·m^2×10^{-4}$ (with brake)	107	220	311
Allowable load moment of inertia (JL)	Multiple of (JM)	10*1		
Rated power rate	kW/s (without brake)	226	231	302
	kW/s (with brake)	213	223	293
Allowable radial load	N	1176	2254	
Allowable thrust load	N	490	686	
Approx. mass	kg (without brake)	36.4	52.7	70.2
	kg (with brake)	40.4	58.9	76.3
Brake specifications: Rated voltage		24VDC ±10%		
Brake specifications: Holding brake moment of inertia J	$kg·m^2×10^{-4}$	4.7	7.1	
Brake specifications: Power consumption (at 20°C)	W	34	26	
Brake specifications: Current consumption (at 20°C)	A	1.4±10%	1.08±10%	
Brake specifications: Static friction torque	N·m (minimum)	58.8	100	
Brake specifications: Rise time for holding torque	ms (max.)	150	300	
Brake specifications: Release time	ms (max)	50	140	
Basic specifications: Time Rating		Continuous		
Basic specifications: Insulation class		Type F		
Basic specifications: Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C		
Basic specifications: Ambient operating/ storage humidity		20% to 85% RH (non-condensing)		
Basic specifications: Vibration class		V-15		
Basic specifications: Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal		
Basic specifications: Enclosure		Totally-enclosed, self-cooling, IP67 (excluding shaft opening)		
Basic specifications: Vibration resistance		Vibration acceleration 49 m/s^2		
Basic specifications: Mounting		Flange-mounted		

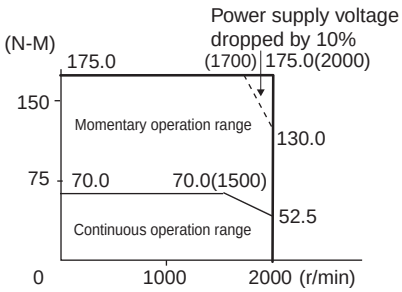
*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

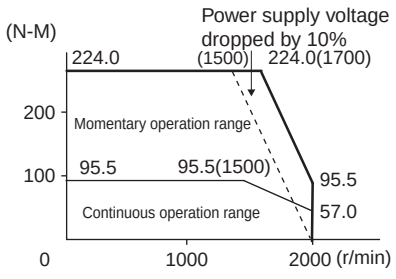
R88M-K7K515C (7.5 kW)



R88M-K11K015C (11 kW)



R88M-K15K015C (15 kW)



Standard servo motors 1000 r/min, 230 V/400 V

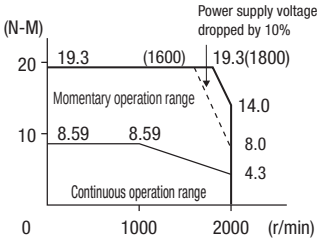
Ratings and specifications

Applied voltage		230 V	400 V				
Servo motor model R88M-K□	**20-bit incremental encoder**	**90010H-□**	**90010F-□**	**2K010F-□**	**3K010F-□**		
	17-bit absolute encoder	**90010T-□**	**90010C-□**	**2K010C-□**	**3K010C-□**	**4K510C-□**	**6K010C-□**
Rated output	W	900	900	2000	3000	4500	6000
Rated torque	N·m	8.59		19.1	28.7	43.0	57.3
Instantaneous peak torque	N·m	19.3		47.7	71.7	107.0	143.0
Rated current	A (rms)	7.6	3.8	8.5	11.3	14.8	19.4
Instantaneous max. current	A (rms)	24	12	30	40	55	74
Rated speed	min^{-1}	1000					
Max. speed	min^{-1}	2000					
Torque constant	N·m/A	0.86	1.72	1.76	1.92	2.05	2.08
Rotor moment of inertia (JM)	$kg·m^2×10^{-4}$ (without brake)	6.70		30.3	48.4	79.1	101
	$kg·m^2×10^{-4}$ (with brake)	7.99		31.4	49.2	84.4	107
Allowable load moment of inertia (JL)	Multiple of (JM)	10*1					
Rated power rate	kW/s (without brake)	110		120	170	233	325
	kW/s (with brake)	92.4		116	167	219	307
Allowable radial load	N	686		1176	1470		1764
Allowable thrust load	N	196		490			588
Approx. mass	kg (without brake)	6.7		14	20	29.4	36.4
	kg (with brake)	8.2		17.5	23.5	33.3	40.4
Brake specifications: Rated voltage		24VDC ±10%					
Brake specifications: Holding brake moment of inertia J	$kg·m^2×10^{-4}$	1.35		4.7			
Brake specifications: Power consumption (at 20°C)	W	19		31	34		
Brake specifications: Current consumption (at 20°C)	A	0.79±10%		1.3±10%	1.4±10%		
Brake specifications: Static friction torque	N·m (minimum)	13.7		24.5	58.8		
Brake specifications: Rise time for holding torque	ms (max.)	100		80	150		
Brake specifications: Release time	ms (max)	50		25	50		
Basic specifications: Time Rating		Continuous					
Basic specifications: Insulation class		Type F					
Basic specifications: Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C					
Basic specifications: Ambient operating/ storage humidity		20% to 85% RH (non-condensing)					
Basic specifications: Vibration class		V-15					
Basic specifications: Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal					
Basic specifications: Enclosure		Totally-enclosed, self-cooling, IP67 (excluding shaft opening)					
Basic specifications: Vibration resistance		Vibration acceleration 49 m/s^2					
Basic specifications: Mounting		Flange-mounted					

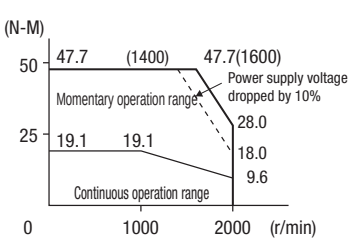
*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

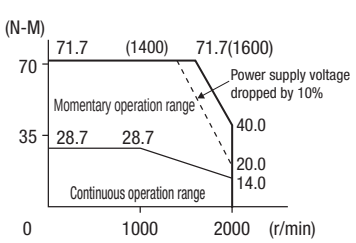
R88M-K90010H/T/F/C



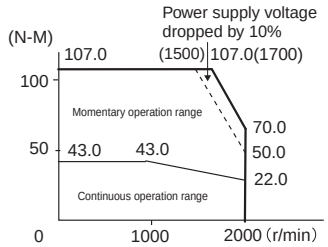
R88M-K2K010F/C



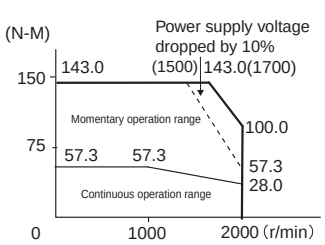
R88M-K3K010F/C



R88M-K4K510C



R88M-K6K010C



High inertia servo motors 3000 r/min, 230 V

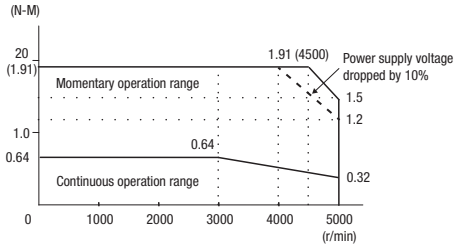
Ratings and specifications

Voltage			230 V		
Servo motor model R88M-KH□	**20-bit incremental encoder**		**20030H-□**	**40030H-□**	**75030H-□**
	17-bit absolute encoder		**20030T-□**	**40030T-□**	**75030T-□**
Rated output	W		200	400	750
Rated torque	N·m		0.64	1.3	2.4
Instantaneous peak torque	N·m		1.91	3.8	7.1
Rated current	A (rms)		1.6	2.6	4.0
Instantaneous max. current	A (rms)		6.9	11.0	17.0
Rated speed	min^{-1}		3000		
Max. speed	min^{-1}		5000		4500
Torque constant	N·m/A		0.29±10%	0.36±10%	0.45±10%
Rotor moment of inertia (JM)	$kg·m^2×10^{-4}$ (without brake)		0.42	0.67	1.51
	$kg·m^2×10^{-4}$ (with brake)		0.45	0.70	1.61
Allowable load moment of inertia (JL)	Multiple of (JM)		30*1		20*1
Rated power rate	kW/s (without brake)		9.58	24.1	37.7
	kW/s (with brake)		9.06	23.3	35.3
Allowable radial load	N		245		392
Allowable thrust load	N		98		147
Approx. mass	kg (without brake)		0.96	1.4	2.5
	kg (with brake)		1.4	1.8	3.3
Brake specifications	Rated voltage		24 VDC ±5%		
	Holding brake moment of inertia J	$kg·m^2×10^{-4}$	0.018		0.075
	Power consumption (at 20°C)	W	9		10
	Current consumption (at 20°C)	A	0.36		0.42
	Static friction torque	N.m (minimum)	1.27		2.45
	Rise time for holding torque	ms (max.)	50		70
	Release time	ms (max)	15		20
Basic specifications	Time Rating		Continuous		
	Insulation class		Type B		
	Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C		
	Ambient operating/ storage humidity		20% to 85% RH (non-condensing)		
	Vibration class		V-15		
	Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal		
	Enclosure		Totally-enclosed, self-cooling, IP65 (excluding shaft opening and lead wire ends)		
	Vibration resistance		Vibration acceleration 49 m/s^2		
	Mounting		Flange-mounted		

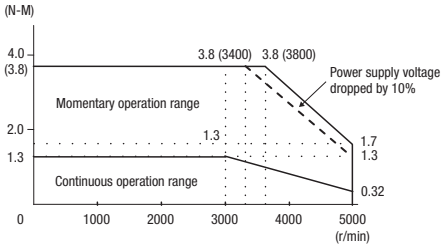
*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

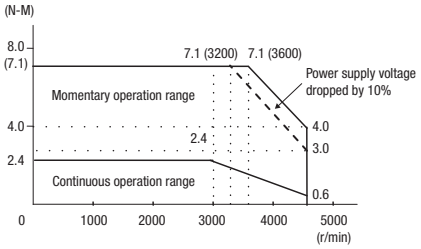
R88M-KH20030H/T (230 V, 200 W)



R88M-KH40030H/T (230 V, 400 W)



R88M-KH75030H/T (230 V, 750 W)



High inertia servo motors 2000 and 1500 r/min, 400 V

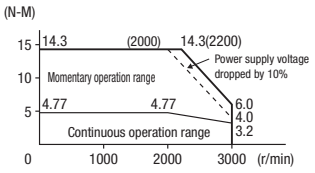
Ratings and specifications

R/min, Voltage		2000 r/min, 400 V						1500 r/min, 400 V
Servo motor model R88M-KH□	20-bit incremental encoder	1K020F-□	1K520F-□	2K020F-□	3K020F-□	4K020F-□	5K020F-□	
	17-bit absolute encoder	1K020C-□	1K520C-□	2K020C-□	3K020C-□	4K020C-□	5K020C-□	7K515C-□
Rated output	W	1000	1500	2000	3000	4000	5000	7500
Rated torque	N·m	4.77	7.16	9.55	14.3	19.1	23.9	47.8
Instantaneous peak torque	N·m	14.3	21.5	28.6	43.0	57.3	71.6	119
Rated current	A (rms)	2.9	4.7	5.5	8.0	10.5	13.0	22.0
Instantaneous max. current	A (rms)	12	20	24	34	45	55	83
Rated speed	min^{-1}	2000						1500
Max. speed	min^{-1}	3000						3000
Torque constant	N·m/A	1.27	1.16	1.31	1.34	1.38	1.39	1.54
Rotor moment of inertia (JM)	$kg·m^2×10^{-4}$ (without brake)	24.7	37.1	57.8	90.2	112	162	273
	$kg·m^2×10^{-4}$ (with brake)	26.0	38.4	62.9	95.3	117	167	279
Max. load moment of inertia (JL)	Multiple of (JM)	5*1						
Rated power rate	kW/s (without brake)	9.2	13.8	15.8	22.7	32.5	35.1	86.7
	kW/s (with brake)	8.8	13.4	14.5	21.5	31.1	34.1	85.1
Allowable radial load	N	490		784				1176
Allowable thrust load	N	196		343				490
Approx. mass	kg (without brake)	6.7	8.6	12.2	16.0	18.6	23.0	42.3
	kg (with brake)	8.1	10.1	15.5	19.2	21.8	26.2	46.2
Brake specifications: Rated voltage		24 VDC ±10%						
Brake specifications: Holding brake moment inertia	(J) $kg·m^2×10^{-4}$	1.35		4.7				
Brake specifications: Power consumption (20°C)	W	14	19	31				34
Brake specifications: Current consumption (20°C)	A	0.59±10%	0.79±10%	1.30±10%				1.40±10%
Brake specifications: Static friction torque	N·m (minimum)	4.9	13.7	24.5				58.8
Brake specifications: Rise time for holding torque	ms (max.)	80	100	80				150
Brake specifications: Release time	ms (max)	70	50	25				50
Basic specifications: Time Rating		Continuous						
Basic specifications: Insulation class		Type F						
Basic specifications: Ambient operating/ storage temperature		0 to +40°C/–20 to 65°C						
Basic specifications: Ambient operating/ storage humidity		20% to 85% RH (non-condensing)						
Basic specifications: Vibration class		V-15						
Basic specifications: Insulation resistance		20 MΩ min. at 500 VDC between the power terminals and FG terminal						
Basic specifications: Enclosure		Totally-enclosed, self-cooling, IP67 (excluding shaft opening)						
Basic specifications: Vibration resistance		Vibration acceleration 49 m/s^2						
Basic specifications: Mounting		Flange-mounted						

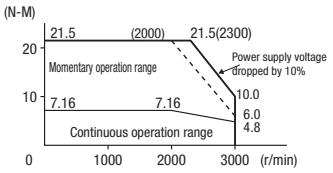
*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

Torque-speed characteristics

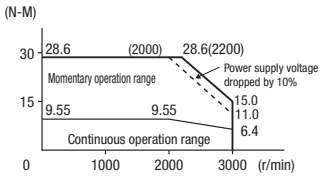
R88M-KH1K020F/C (400 V, 1 kW)



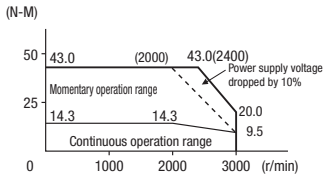
R88M-KH1K520F/C (400 V, 1.5 kW)



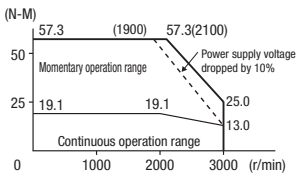
R88M-KH2K020F/C (400 V, 2 kW)



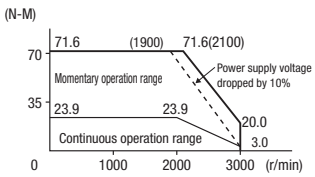
R88M-KH3K020F/C (400 V, 3 kW)



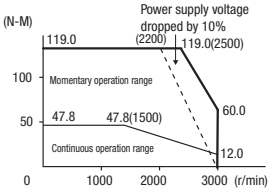
R88M-KH4K020F/C (400 V, 4 kW)



R88M-KH5K020F/C (400 V, 5 kW)



R88M-KH7K515C (7.5 kW)

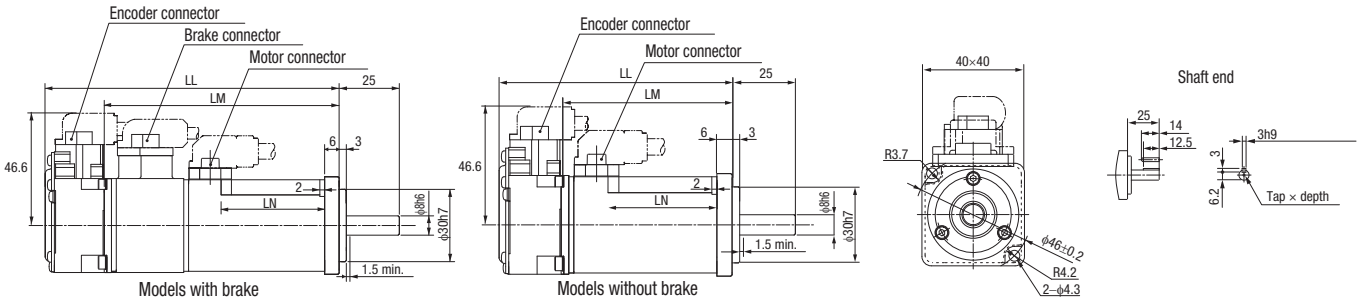


Dimensions

Standard servo motors

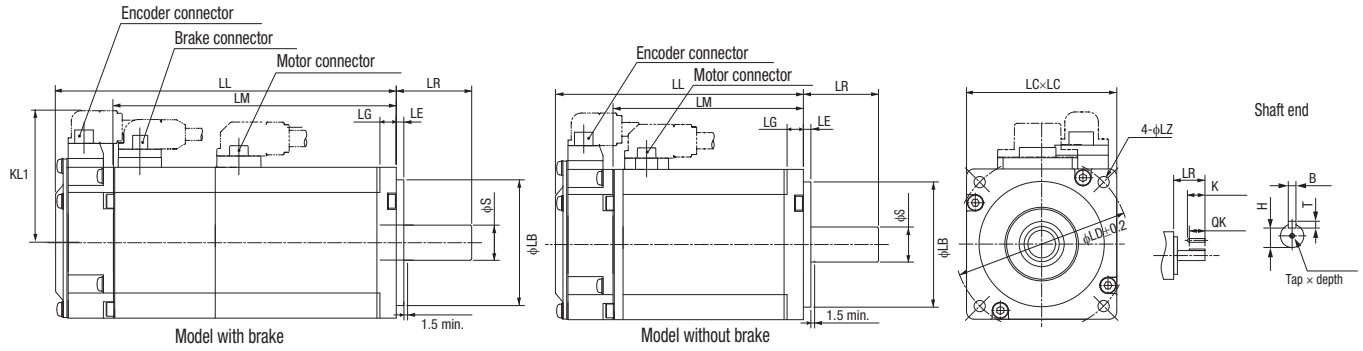
Type 3000 r/min motors (230 V, 50 to 100 W)

Dimensions (mm)	Without brake		With brake		LN	Shaft end dimensions	Approx. mass (kg)	
Model	LL	LM	LL	LM		Tap × Depth	Without brake	With brake
R88M-K05030(H/T)-□S2	72	48	102	78	23	M3 × 6L	0.32	0.53
R88M-K10030(H/T)-□S2	92	68	122	98	43		0.47	0.68



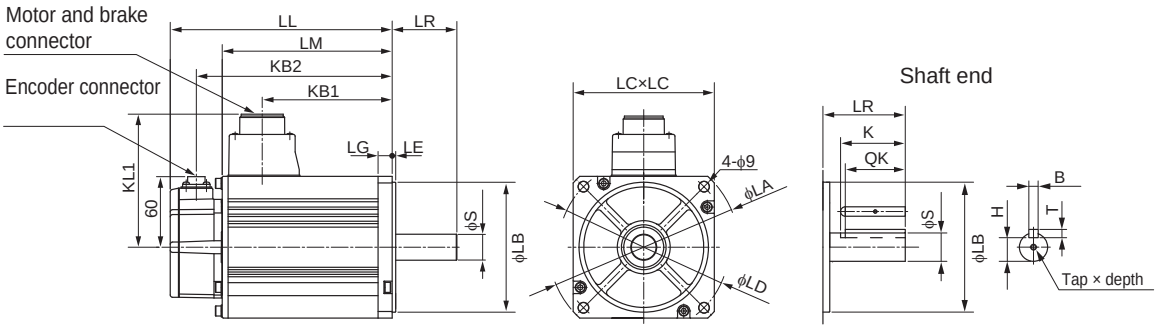
Type 3000 r/min motors (230 V, 200 to 750 W)

Dimensions (mm)	Without brake			With brake			LR	Flange surface						Shaft end dimensions							Approx. mass kg	
Model	LL	LM	KL1	LL	LM	KL1		LB	LC	LD	LE	LG	LZ	S	K	QK	H	B	T	Tap × Depth	Without brake	With brake
R88M-K20030(H/T)-□S2	79.5	56.5	52.5	116	93	52.5	30	50^{h7}	60	70	3	6.5	4.5	11^{h6}	20	18	8.5	4^{h9}	4	M4 × 8L	0.82	1.3
R88M-K40030(H/T)-□S2	99	76	52.5	135.5	112.5	52.5								14^{h6}	25	22.5	11	5^{h9}	5	M5 × 10L	1.2	1.7
R88M-K75030(H/T)-□S2	112.2	86.2	60	148.2	122.2	61.6	35	70^{h7}	80	90		8	6	19^{h6}		22	15.5	6^{h9}	6		2.3	3.1



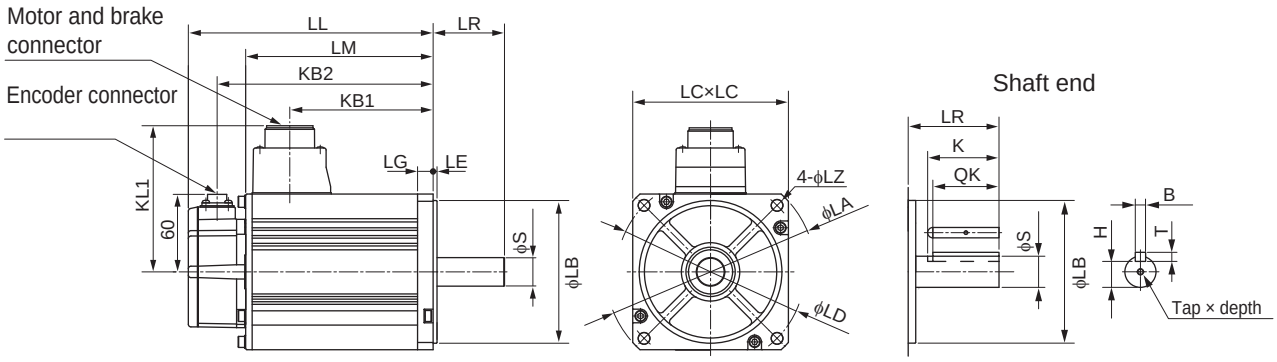
Type 3000 r/min motors (230 V, 1 to 1.5 kW/400V, 750 W to 5 kW)

Dimensions (mm)		Without brake					With brake					LR	Flange surface						Shaft end dimensions							Approx. Mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	KL1	LL	LM	KB1	KB2	KL1		LA	LB	LC	LD	LE	LG	S	Tap × Depth	K	QK	H	B	T	Without brake	With brake
230	1K030(H/T)-□S2	141	97	66	119	101	168	124	66	146	101	55	135	95^{h7}	100	115	3	10	19^{h6}	M5 × 12L	45	42	15.5	6^{h9}	6	3.5	4.5
	1K530(H/T)-□S2	159.5	115.5	84.5	137.5		186.5	142.5	84.5	164.5																4.4	5.4
400	75030(F/C)-□S2	131.5	87.5	56.5	109.5		158.5	114.5	53.5	136.5	103															3.1	4.1
	1K030(F/C)-□S2	141	97	66	119		168	124	63	146																3.5	4.5
	1K530(F/C)-□S2	159.5	115.5	84.5	137.5		186.5	142.5	81.5	164.5																4.4	5.4
	2K030(F/C)-□S2	178.5	134.5	103.5	156.5		205.5	161.5	100.5	183.5																5.3	6.3
	3K030(F/C)-□S2	190	146	112	168	113	215	171	112	193	113		162	110^{h7}	120	145		12	22^{h6}			41	18	8^{h9}	7	8.3	9.4
	4K030(F/C)-□S2	208	164	127	186	118	233	189	127	211	118	65	165		130		6		24^{h6}	M8 × 20L	55	51	20			11	12.6
	5K030(F/C)-□S2	243	199	162	221		268	224	162	246																14	16



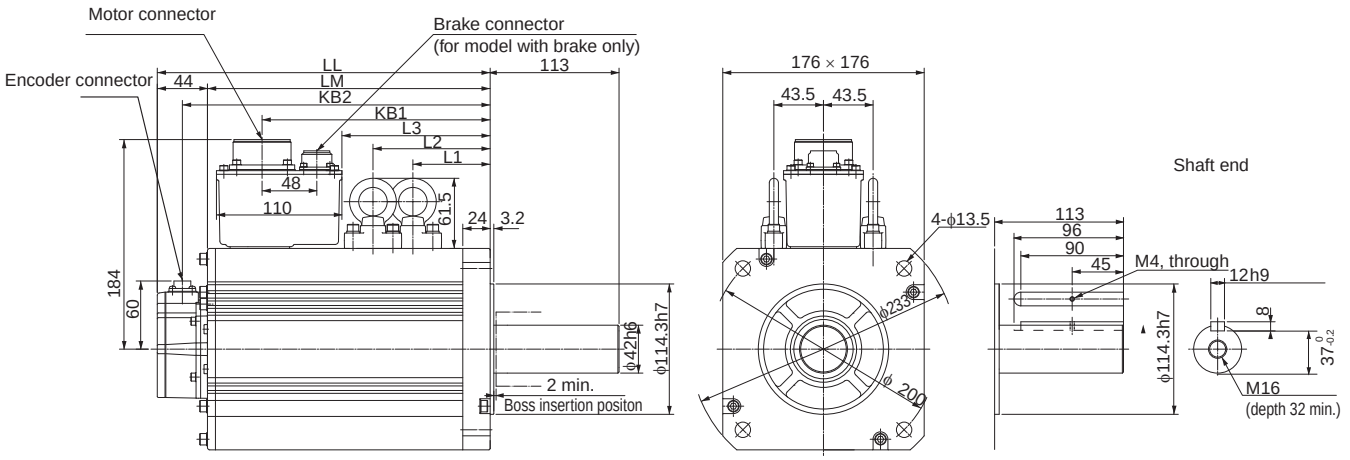
Type 2000 r/min motors (230 V, 1 to 1.5 kW /400 V, 400 W to 5 kW)

Dimensions (mm)		Without brake					With brake					LR	Flange surface							Shaft end dimensions							Approx. mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	KL1	LL	LM	KB1	KB2	KL1		LA	LB	LC	LD	LE	LG	LZ	S	Tap × Depth	K	QK	H	B	T	Without brake	With brake
230	1K020(H/T)-□S2	138	94	60	116	116	163	119	60	141	116	55	165	110^{h7}	130	145	6	12	9	22^{h6}	M5 × 12L	45	41	18	8^{h9}	7	5.2	6.7
	1K520(H/T)-□S2	155.5	111.5	77.5	133.5		180.5	136.5	77.5	158.5																	6.7	8.2
400	40020(F/C)-□S2	131.5	87.5	56.5	109.5	101	158.5	114.5	53.5	136.5	103		135	95^{h7}	100	115	3	10		19^{h6}			42	15.5	6^{h9}	6	3.1	4.1
	60020(F/C)-□S2	141	97	66	119		168	124	63	146																	3.5	4.5
	1K020(F/C)-□S2	138	94	60	116	116	163	119	57	141	118		165	110^{h7}	130	145	6	12		22^{h6}			41	18	8^{h9}	7	5.2	6.7
	1K520(F/C)-□S2	155.5	111.5	77.5	133.5		180.5	136.5	74.5	158.5																	6.7	8.2
	2K020(F/C)-□S2	173	129	95	151		198	154	92	176																	8	9.5
	3K020(F/C)-□S2	208	164	127	186	118	233	189	127	211		65								24^{h6}	M8 × 20L	55	51	20			11	12.6
	4K020(F/C)-□S2	177	133	96	155	140	202	158	96	180	140	70	233	114.3^{h7}	176	200	3.2	18	13.5	35^{h6}	M12 × 25L		50	30	10^{h9}	8	15.5	18.7
	5K020(F/C)-□S2	196	152	115	174		221	177	115	199																	18.6	21.8



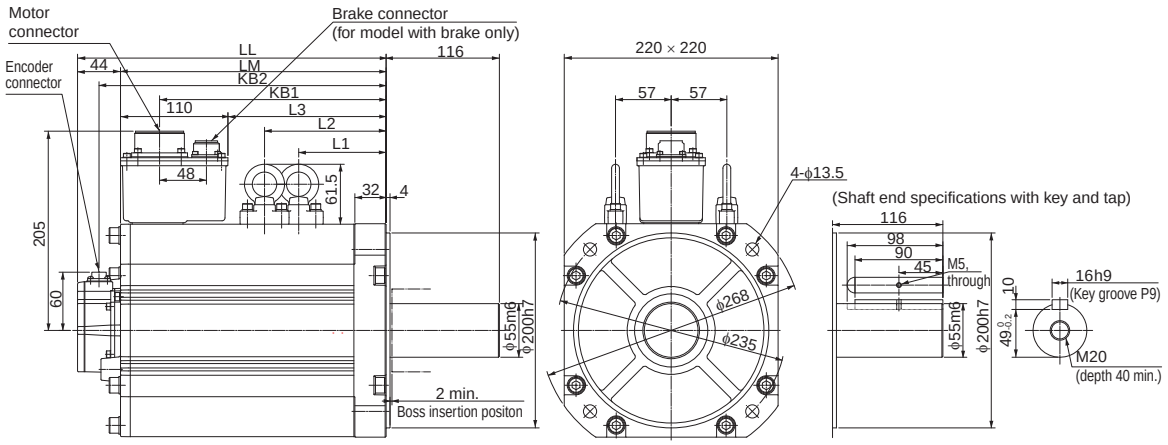
Type 1500 r/min motors (400 V, 7.5kW)

Dimensions (mm)		Without brake							With brake							Approx. mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	L1	L2	L3	LL	LM	KB1	KB2	L1	L2	L3	Without brake	With brake
400	7K515C-□S2	312	268	219	290	117.5	117.5	149	337	293	253	315	117.5	152.5	183	36.4	40.4



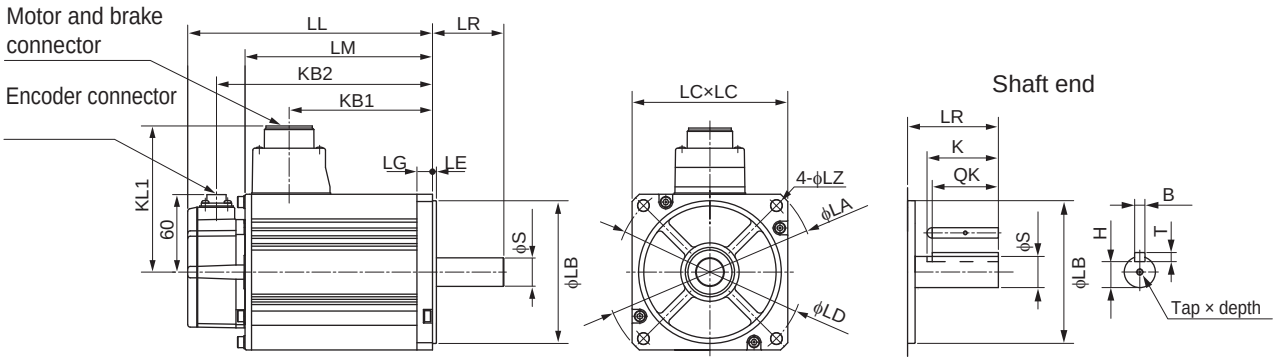
Type 1500 r/min motors (400 V, 11 to 15 kW)

Dimensions (mm)		Without brake							With brake							Approx. Mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	L1	L2	L3	LL	LM	KB1	KB2	L1	L2	L3	Without brake	With brake
400	11K015C-□S2	316	272	232	294	124.5	124.5	162	364	320	266	342	124.5	159.5	196	52.7	58.9
	15K015C-□S2	384	340	300	362	158.5	158.5	230	432	388	334	410	158.5	193.5	264	70.2	76.3



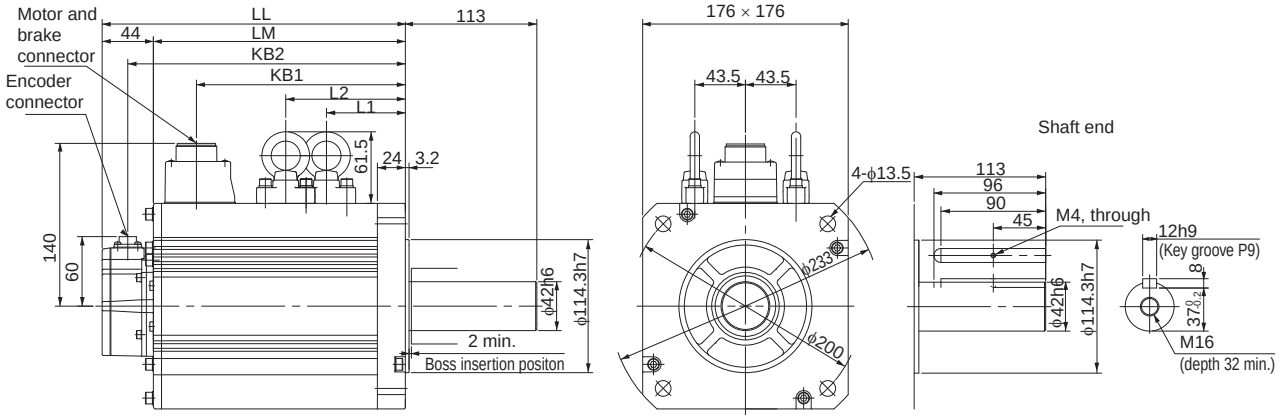
Type 1000 r/min motors (230 V, 900W/400 V, 900 W to 3 kW)

Dimensions (mm)		Without brake					With brake					LR	Flange surface							Shaft end dimensions							Approx. mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	KL1	LL	LM	KB1	KB2	KL1		LA	LB	LC	LD	LE	LG	LZ	S	Tap × Depth	K	QK	H	B	T	Without brake	With brake
230	90010(H/T)-□S2	155.5	111.5	77.5	133.5	116	180.5	136.5	77.5	158.5	116	70	165	110^{h7}	130	145	6	12	9	22^{h6}	M5 × 12L	45	41	18	8^{h9}	7	6.7	8.2
400	90010(F/C)-□S2								74.5		118																	
	2K010(F/C)-□S2	163.5	119.5	82.5	141.5	140	188.5	144.5	82.5	166.5	140	80	233	114.3^{h7}	176	200	3.2	18	13.5	35^{h6}	M12 × 25L	55	50	30	10^{h9}	8	14	17.5
	3K010(F/C)-□S2	209.5	165.5	128.5	187.5		234.5	190.5	128.5	212.5																	20	23.5



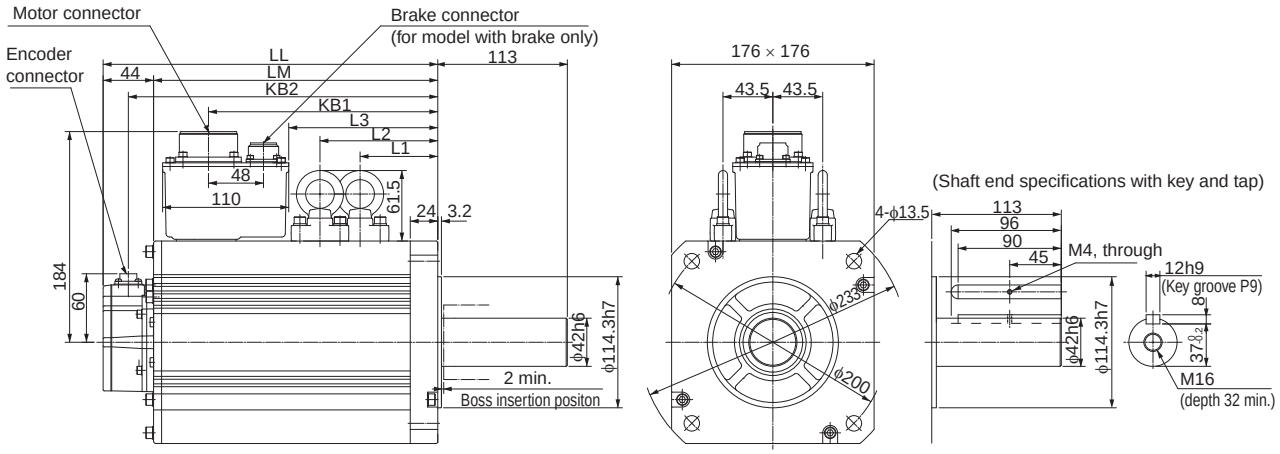
Type 1000 r/min motors (400 V, 4.5 kW)

Dimensions (mm)		Without brake						With brake						Approx. mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	L1	L2	LL	LM	KB1	KB2	L1	L2	Without brake	With brake
400	4K510C-□S2	266	222	185	244	98	98	291	247	185	269	98	133	29.4	33.3



Type 1000 r/min motors (400 V, 6 kW)

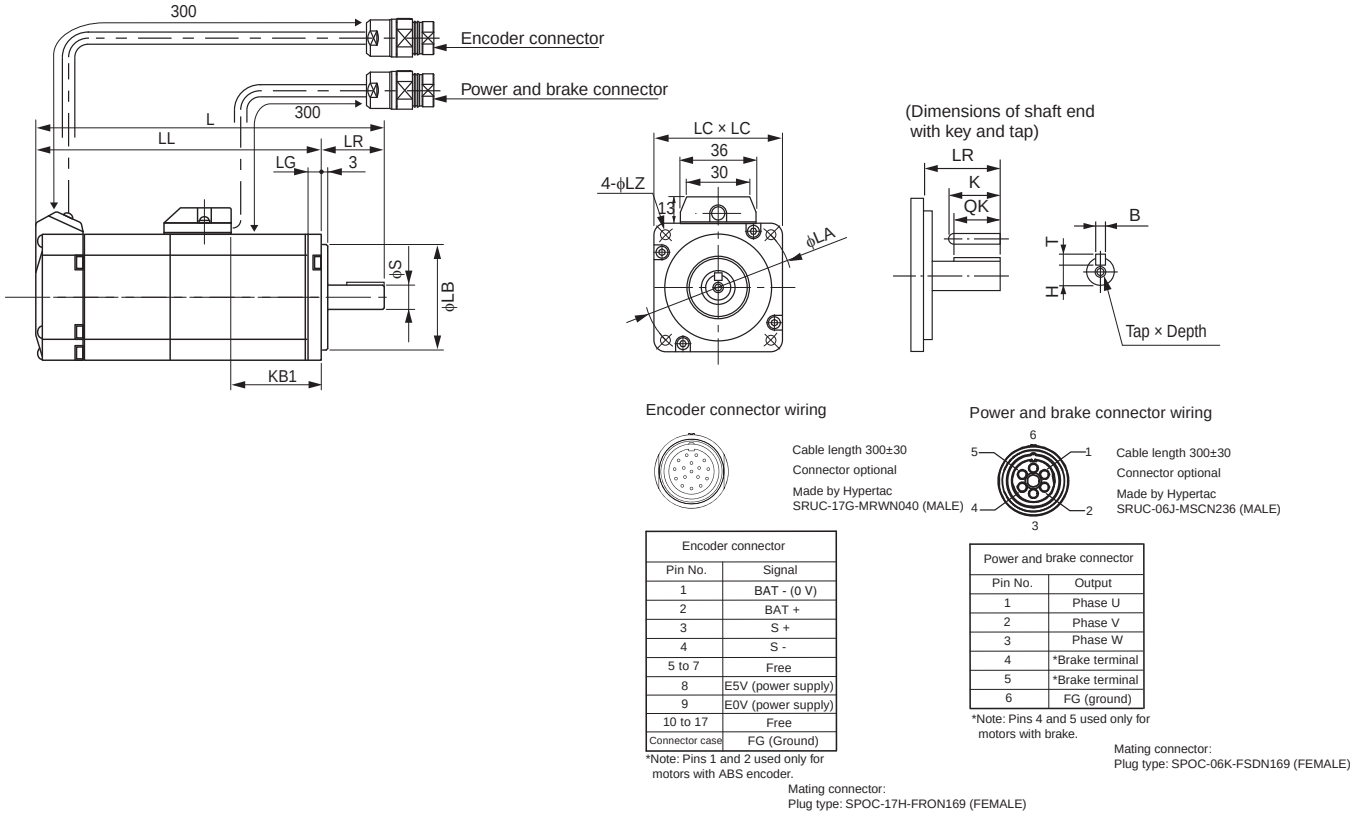
Dimensions (mm)		Without brake							With brake							Approx. mass (kg)	
Voltage	Model R88M-K□	LL	LM	KB1	KB2	L1	L2	L3	LL	LM	KB1	KB2	L1	L2	L3	Without brake	With brake
400	6K010C-□S2	312	268	219	290	117.5	117.5	149	337	293	253	315	117.5	152.5	183	36.4	40.4



High inertia servo motors

Type 3000 r/min motors (230 V, 200 W to 750 W)

Dimensions (mm)		Without brake		With brake		KB1	LR	Flange surface					Shaft end dimensions							Approx. mass (kg)	
Voltage	Model R88M-KH□	L	LL	L	LL			LA	LB	LC	LG	LZ	S	Tap x Depth	K	QK	H	B	T	Without brake	With brake
230	20030(H/T)-□S2-D	129	99	165.5	135.5	42	30	70	50^{h7}	60	6.5	4.5	11^{h6}	M4x8L	20	18	8.5	4^{h9}	4	0.96	1.4
	40030(H/T)-□S2-D	148.5	118.5	185	155	61.5							14^{h6}	M5x10L	25	22.5	11	5^{h9}	5	1.4	1.8
	75030(H/T)-□S2-D	162.2	127.2	199.2	164.2	67.2	35	90	70^{h7}	80	8	6	19^{h6}	M5x10L	25	22	15.5	6^{h9}	6	2.5	3.3



Encoder connector	
Pin No.	Signal
1	BAT - (0 V)
2	BAT +
3	S +
4	S -
5 to 7	Free
8	E5V (power supply)
9	E0V (power supply)
10 to 17	Free
Connector case	FG (Ground)

*Note: Pins 1 and 2 used only for motors with ABS encoder.

Mating connector:
Plug type: SPOC-17H-FRON169 (FEMALE)

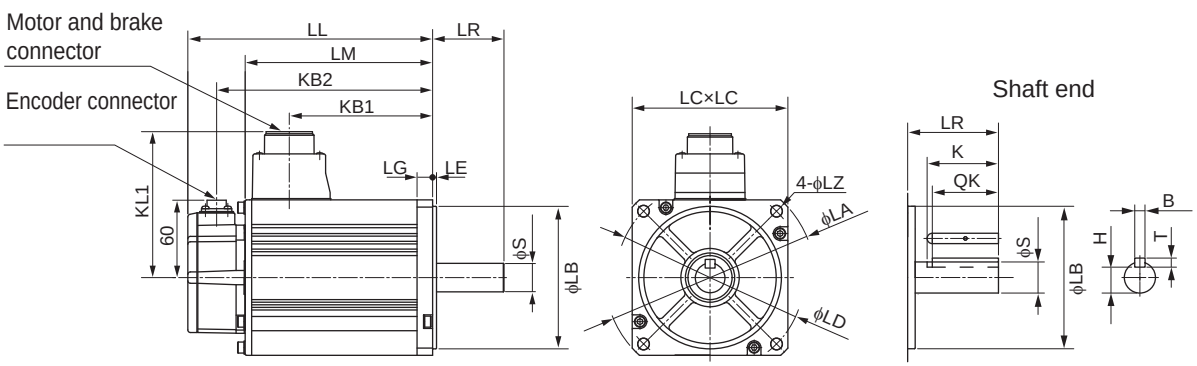
Power and brake connector	
Pin No.	Output
1	Phase U
2	Phase V
3	Phase W
4	*Brake terminal
5	*Brake terminal
6	FG (ground)

*Note: Pins 4 and 5 used only for motors with brake.

Mating connector:
Plug type: SPOC-06K-FSDN169 (FEMALE)

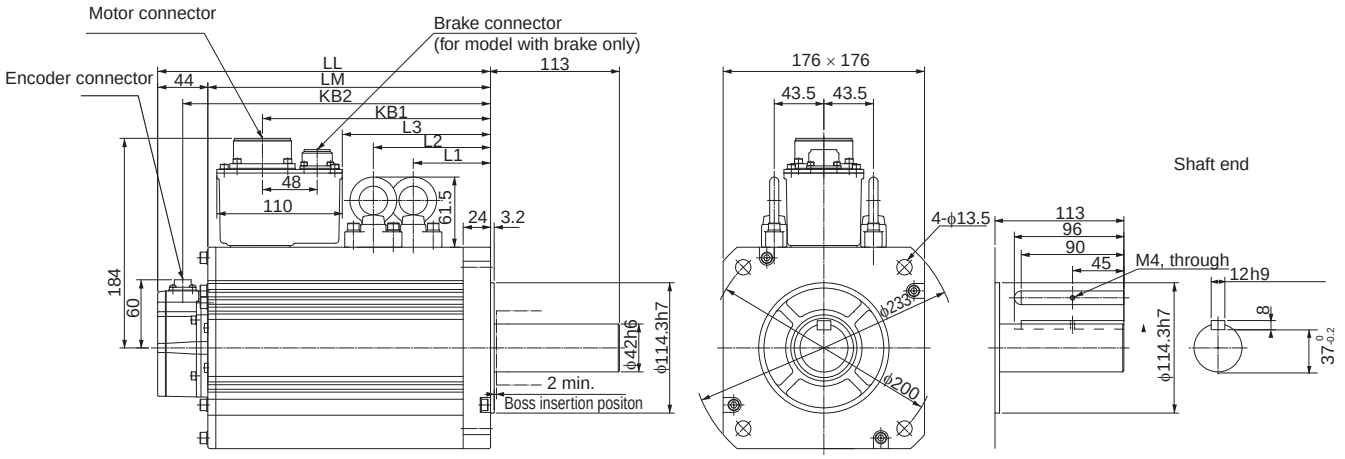
Type 2000 r/min motors (400 V, 1 kW to 5 kW)

Dimensions (mm)		Without brake					With brake					LR	Flange surface							Shaft end dimensions						Approx. mass (kg)	
Voltage	Model R88M-KH□	LL	LM	KB1	KB2	KL1	LL	LM	KB1	KB2	KL1		LA	LB	LC	LD	LE	LG	LZ	S	K	QK	H	B	T	Without brake	With brake
400	1K020(F/C)-□S1	173	129	95	151	116	201	157	92	179	118	70	165	110^{h7}	130	145	6	12	9	22^{h6}	45	41	18	8^{h9}	7	6.7	8.1
	1K520(F/C)-□S1	190.5	146.5	112.5	168.5		218.5	174.5	109.5	196.5																8.6	10.1
	2K020(F/C)-□S1	177	133	96	155	140	206	162	96	184	140	80	233	114.3^{h7}	176	200	3.2	18	13.5	35^{h6}	55	50	30	10^{h9}	8	12.2	15.5
	3K020(F/C)-□S1	196	152	115	174		225	181	115	203																16.0	19.2
	4K020(F/C)-□S1	209.5	165.5	128.5	187.5		238.5	194.5	128.5	216.5																18.6	21.8
	5K020(F/C)-□S1	238.5	194.5	157.5	216.5		267.5	223.5	157.5	245.5																23.0	26.2



Type 1500 r/min motors (400 V, 7.5 kW)

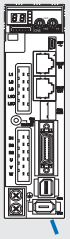
Dimensions (mm)		Without brake							With brake							Approx. mass (kg)	
Voltage	Model R88M-KH□	LL	LM	KB1	KB2	L1	L2	L3	LL	LM	KB1	KB2	L1	L2	L3	Without brake	With brake
400	7K515C-□S1	357	313	264	335	146.5	146.5	194	382	338	298	360	146.5	181.5	228	42.3	46.2



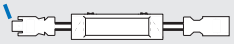
Ordering information

(Refer to servo drive chapter)

② Drive options

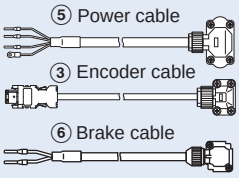


Accurax G5 servo drive
EtherCAT, ML2 and
Analogue/pulse models

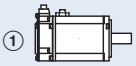


④ Extension cable for absolute encoder (with battery holder)

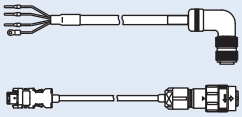
Standard servo motors



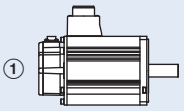
⑤ Power cable
③ Encoder cable
⑥ Brake cable



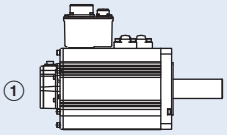
① 3000 rpm (50 W to 750 W)



Power cable/
⑤ Power cable with brake
③ Encoder cable

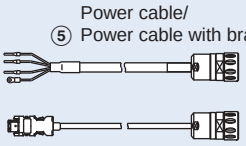


① 3000 rpm (750 W to 5 kW)
2000 rpm (400 W to 5 kW)
1000 rpm (900 W to 3 kW)

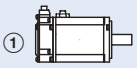


① 1500 rpm (7.5 kW to 15 kW)
1000 rpm (4.5 kW to 6 kW)

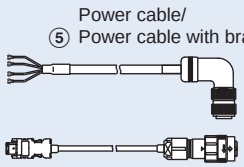
High inertia servo motors



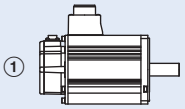
Power cable/
⑤ Power cable with brake
③ Encoder cable



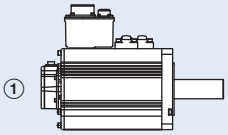
① 3000 rpm (200 W to 750 W)



Power cable/
⑤ Power cable with brake
③ Encoder cable



① 2000 rpm (1 kW to 5 kW)



① 1500 rpm (7.5 kW)

Note: The symbols ①②③... show the recommended sequence to select the servo motor and cables

Servo motor

① Select motor from R88M-K or R88M-KH families using motor tables in next pages.

Servo drive

② Refer to Accurax G5 servo drive chapter for detailed drive specifications and selection of drive accessories.

Standard servo motors

Servo motors 3000 r/min (50 to 5000 W)

Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT/ ML2	G5 Analog/pulse
① 230V (50 to 750 W) 230 V (1 kW to 1.5 kW) 400 V (750 W to 5 kW)	230 V	Incremental encoder (20 bit) Straight shaft with key and tap	Without brake	0.16 Nm	50 W	R88M-K05030H-S2	R88D-KN01H-□	R88D-KT01H
				0.32 Nm	100 W	R88M-K10030H-S2	R88D-KN01H-□	R88D-KT01H
				0.64 Nm	200 W	R88M-K20030H-S2	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-K40030H-S2	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-K75030H-S2	R88D-KN08H-□	R88D-KT08H
				3.18 Nm	1000 W	R88M-K1K030H-S2	R88D-KN15H-□	R88D-KT15H
				4.77 Nm	1500 W	R88M-K1K530H-S2	R88D-KN15H-□	R88D-KT15H
			With brake	0.16 Nm	50 W	R88M-K05030H-BS2	R88D-KN01H-□	R88D-KT01H
				0.32 Nm	100 W	R88M-K10030H-BS2	R88D-KN01H-□	R88D-KT01H
				0.64 Nm	200 W	R88M-K20030H-BS2	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-K40030H-BS2	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-K75030H-BS2	R88D-KN08H-□	R88D-KT08H
				3.18 Nm	1000 W	R88M-K1K030H-BS2	R88D-KN15H-□	R88D-KT15H
				4.77 Nm	1500 W	R88M-K1K530H-BS2	R88D-KN15H-□	R88D-KT15H
		Absolute encoder (17 bit) Straight shaft with key and tap	Without brake	0.16 Nm	50 W	R88M-K05030T-S2	R88D-KN01H-□	R88D-KT01H
				0.32 Nm	100 W	R88M-K10030T-S2	R88D-KN01H-□	R88D-KT01H
				0.64 Nm	200 W	R88M-K20030T-S2	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-K40030T-S2	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-K75030T-S2	R88D-KN08H-□	R88D-KT08H
				3.18 Nm	1000 W	R88M-K1K030T-S2	R88D-KN15H-□	R88D-KT15H
				4.77 Nm	1500 W	R88M-K1K530T-S2	R88D-KN15H-□	R88D-KT15H
			With brake	0.16 Nm	50 W	R88M-K05030T-BS2	R88D-KN01H-□	R88D-KT01H
				0.32 Nm	100 W	R88M-K10030T-BS2	R88D-KN01H-□	R88D-KT01H
				0.64 Nm	200 W	R88M-K20030T-BS2	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-K40030T-BS2	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-K75030T-BS2	R88D-KN08H-□	R88D-KT08H
				3.18 Nm	1000 W	R88M-K1K030T-BS2	R88D-KN15H-□	R88D-KT15H
				4.77 Nm	1500 W	R88M-K1K530T-BS2	R88D-KN15H-□	R88D-KT15H
	400 V	Incremental encoder (20 bit) Straight shaft with key and tap	Without brake	2.39 Nm	750 W	R88M-K75030F-S2	R88D-KN10F-□	R88D-KT10F
				3.18 Nm	1000 W	R88M-K1K030F-S2	R88D-KN15F-□	R88D-KT15F
				4.77 Nm	1500 W	R88M-K1K530F-S2	R88D-KN15F-□	R88D-KT15F
				6.37 Nm	2000 W	R88M-K2K030F-S2	R88D-KN20F-□	R88D-KT20F
				9.55 Nm	3000 W	R88M-K3K030F-S2	R88D-KN30F-□	R88D-KT30F
				12.7 Nm	4000 W	R88M-K4K030F-S2	R88D-KN50F-□	R88D-KT50F
				15.9 Nm	5000 W	R88M-K5K030F-S2	R88D-KN50F-□	R88D-KT50F
			With brake	2.39 Nm	750 W	R88M-K75030F-BS2	R88D-KN10F-□	R88D-KT10F
				3.18 Nm	1000 W	R88M-K1K030F-BS2	R88D-KN15F-□	R88D-KT15F
				4.77 Nm	1500 W	R88M-K1K530F-BS2	R88D-KN15F-□	R88D-KT15F
				6.37 Nm	2000 W	R88M-K2K030F-BS2	R88D-KN20F-□	R88D-KT20F
				9.55 Nm	3000 W	R88M-K3K030F-BS2	R88D-KN30F-□	R88D-KT30F
				12.7 Nm	4000 W	R88M-K4K030F-BS2	R88D-KN50F-□	R88D-KT50F
				15.9 Nm	5000 W	R88M-K5K030F-BS2	R88D-KN50F-□	R88D-KT50F
		Absolute encoder (17 bit) Straight shaft with key and tap	Without brake	2.39 Nm	750 W	R88M-K75030C-S2	R88D-KN10F-□	R88D-KT10F
				3.18 Nm	1000 W	R88M-K1K030C-S2	R88D-KN15F-□	R88D-KT15F
				4.77 Nm	1500 W	R88M-K1K530C-S2	R88D-KN15F-□	R88D-KT15F
				6.37 Nm	2000 W	R88M-K2K030C-S2	R88D-KN20F-□	R88D-KT20F
				9.55 Nm	3000 W	R88M-K3K030C-S2	R88D-KN30F-□	R88D-KT30F
				12.7 Nm	4000 W	R88M-K4K030C-S2	R88D-KN50F-□	R88D-KT50F
				15.9 Nm	5000 W	R88M-K5K030C-S2	R88D-KN50F-□	R88D-KT50F
			With brake	2.39 Nm	750 W	R88M-K75030C-BS2	R88D-KN10F-□	R88D-KT10F
				3.18 Nm	1000 W	R88M-K1K030C-BS2	R88D-KN15F-□	R88D-KT15F
				4.77 Nm	1500 W	R88M-K1K530C-BS2	R88D-KN15F-□	R88D-KT15F
				6.37 Nm	2000 W	R88M-K2K030C-BS2	R88D-KN20F-□	R88D-KT20F
				9.55 Nm	3000 W	R88M-K3K030C-BS2	R88D-KN30F-□	R88D-KT30F
				12.7 Nm	4000 W	R88M-K4K030C-BS2	R88D-KN50F-□	R88D-KT50F
				15.9 Nm	5000 W	R88M-K5K030C-BS2	R88D-KN50F-□	R88D-KT50F

Servo motors 2000 r/min (1 to 5 kW)

Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT/ ML2	G5 Analog/pulse
①	230 V	**Incremental encoder (20 bit)** Straight shaft with key and tap	Without brake	4.77 Nm	1000 W	R88M-K1K020H-S2	R88D-KN10H-□	R88D-KT10H
				7.16 Nm	1500 W	R88M-K1K520H-S2	R88D-KN15H-□	R88D-KT15H
			With brake	4.77 Nm	1000 W	R88M-K1K020H-BS2	R88D-KN10H-□	R88D-KT10H
				7.16 Nm	1500 W	R88M-K1K520H-BS2	R88D-KN15H-□	R88D-KT15H
		Absolute encoder (17 bit) Straight shaft with key and tap	Without brake	4.77 Nm	1000 W	R88M-K1K020T-S2	R88D-KN10H-□	R88D-KT10H
				7.16 Nm	1500 W	R88M-K1K520T-S2	R88D-KN15H-□	R88D-KT15H
			With brake	4.77 Nm	1000 W	R88M-K1K020T-BS2	R88D-KN10H-□	R88D-KT10H
				7.16 Nm	1500 W	R88M-K1K520T-BS2	R88D-KN15H-□	R88D-KT15H
	400 V	**Incremental encoder (20 bit)** Straight shaft with key and tap	Without brake	1.91 Nm	400 W	R88M-K40020F-S2	R88D-KN06F-□	R88D-KT06F
				2.86 Nm	600 W	R88M-K60020F-S2	R88D-KN06F-□	R88D-KT06F
				4.77 Nm	1000 W	R88M-K1K020F-S2	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-K1K520F-S2	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-K2K020F-S2	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-K3K020F-S2	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-K4K020F-S2	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-K5K020F-S2	R88D-KN50F-□	R88D-KT50F
			With brake	1.91 Nm	400 W	R88M-K40020F-BS2	R88D-KN06F-□	R88D-KT06F
				2.86 Nm	600 W	R88M-K60020F-BS2	R88D-KN06F-□	R88D-KT06F
				4.77 Nm	1000 W	R88M-K1K020F-BS2	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-K1K520F-BS2	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-K2K020F-BS2	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-K3K020F-BS2	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-K4K020F-BS2	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-K5K020F-BS2	R88D-KN50F-□	R88D-KT50F
		Absolute encoder (17 bit) Straight shaft with key and tap	Without brake	1.91 Nm	400 W	R88M-K40020C-S2	R88D-KN06F-□	R88D-KT06F
				2.86 Nm	600 W	R88M-K60020C-S2	R88D-KN06F-□	R88D-KT06F
				4.77 Nm	1000 W	R88M-K1K020C-S2	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-K1K520C-S2	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-K2K020C-S2	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-K3K020C-S2	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-K4K020C-S2	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-K5K020C-S2	R88D-KN50F-□	R88D-KT50F
			With brake	1.91 Nm	400 W	R88M-K40020C-BS2	R88D-KN06F-□	R88D-KT06F
				2.86 Nm	600 W	R88M-K60020C-BS2	R88D-KN06F-□	R88D-KT06F
				4.77 Nm	1000 W	R88M-K1K020C-BS2	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-K1K520C-BS2	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-K2K020C-BS2	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-K3K020C-BS2	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-K4K020C-BS2	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-K5K020C-BS2	R88D-KN50F-□	R88D-KT50F

Servo motors 1500 r/min (7.5 to 15 KW)

Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT	G5 Analog/pulse
①	400 V	**Absolute encoder (17 bit)** Straight shaft with key and tap	Without brake	47.8 Nm	7500 W	R88M-K7K515C-S2	R88D-KN75F-ECT	R88D-KT75F
				70.0 Nm	11000 W	R88M-K11K015C-S2	R88D-KN150F-ECT	R88D-KT150F
				95.5 Nm	15000 W	R88M-K15K015C-S2	R88D-KN150F-ECT	R88D-KT150F
			With brake	47.8 Nm	7500 W	R88M-K7K515C-BS2	R88D-KN75F-ECT	R88D-KT75F
				70.0 Nm	11000 W	R88M-K11K015C-BS2	R88D-KN150F-ECT	R88D-KT150F
				95.5 Nm	15000 W	R88M-K15K015C-BS2	R88D-KN150F-ECT	R88D-KT150F

Servo motors 1000 r/min (900 to 6000 W)

Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT/ML2	G5 Analog/pulse
① 900 W - 3 kW 4.5 kW - 6 kW	230 V	**Incremental encoder (20 bit)** Straight shaft with key and tap	No brake	8.59 Nm	900 W	R88M-K90010H-S2	R88D-KN15H-□	R88D-KT15H
			With brake	8.59 Nm	900 W	R88M-K90010H-BS2	R88D-KN15H-□	R88D-KT15H
		Absolute encoder (17 bit) Straight shaft with key and tap	No brake	8.59 Nm	900 W	R88M-K90010T-S2	R88D-KN15H-□	R88D-KT15H
			With brake	8.59 Nm	900 W	R88M-K90010T-BS2	R88D-KN15H-□	R88D-KT15H
	400 V	**Incremental encoder (20 bit)** Straight shaft with key and tap	No brake	8.59 Nm	900 W	R88M-K90010F-S2	R88D-KN15F-□	R88D-KT15F
				19.1 Nm	2000 W	R88M-K2K010F-S2	R88D-KN30F-□	R88D-KT30F
				28.7 Nm	3000 W	R88M-K3K010F-S2	R88D-KN50F-□	R88D-KT50F
			With brake	8.59 Nm	900 W	R88M-K90010F-BS2	R88D-KN15F-□	R88D-KT15F
				19.1 Nm	2000 W	R88M-K2K010F-BS2	R88D-KN30F-□	R88D-KT30F
				28.7 Nm	3000 W	R88M-K3K010F-BS2	R88D-KN50F-□	R88D-KT50F
		Absolute encoder (17 bit) Straight shaft with key and tap	No brake	8.59 Nm	900 W	R88M-K90010C-S2	R88D-KN15F-□	R88D-KT15F
				19.1 Nm	2000 W	R88M-K2K010C-S2	R88D-KN30F-□	R88D-KT30F
				28.7 Nm	3000 W	R88M-K3K010C-S2	R88D-KN50F-□	R88D-KT50F
				43.0 Nm	4500 W	R88M-K4K510C-S2	R88D-KN50F-□	R88D-KT50F
				57.3 Nm	6000 W	R88M-K6K010C-S2	R88D-KN75F-ECT	R88D-KT75F
			With brake	8.59 Nm	900 W	R88M-K90010C-BS2	R88D-KN15F-□	R88D-KT15F
				19.1 Nm	2000 W	R88M-K2K010C-S2	R88D-KN30F-□	R88D-KT30F
				28.7 Nm	3000 W	R88M-K3K010C-S2	R88D-KN50F-□	R88D-KT50F
				43.0 Nm	4500 W	R88M-K4K510C-BS2	R88D-KN50F-□	R88D-KT50F
				57.3 Nm	6000 W	R88M-K6K010C-BS2	R88D-KN75F-ECT	R88D-KT75F

High inertia servo motors

Servo motors 3000 r/min (200 to 750 W)

Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT/ ML2	G5 Analog/pulse
①	230 V	**Incremental encoder (20 bit)** Straight shaft with key and tap	Without brake	0.64 Nm	200 W	R88M-KH20030H-S2-D	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-KH40030H-S2-D	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-KH75030H-S2-D	R88D-KN08H-□	R88D-KT08H
			With brake	0.64 Nm	200 W	R88M-KH20030H-BS2-D	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-KH40030H-BS2-D	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-KH75030H-BS2-D	R88D-KN08H-□	R88D-KT08H
		Absolute encoder (17 bit) Straight shaft with key and tap	Without brake	0.64 Nm	200 W	R88M-KH20030T-S2-D	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-KH40030T-S2-D	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-KH75030T-S2-D	R88D-KN08H-□	R88D-KT08H
			With brake	0.64 Nm	200 W	R88M-KH20030T-BS2-D	R88D-KN02H-□	R88D-KT02H
				1.3 Nm	400 W	R88M-KH40030T-BS2-D	R88D-KN04H-□	R88D-KT04H
				2.4 Nm	750 W	R88M-KH75030T-BS2-D	R88D-KN08H-□	R88D-KT08H

Servo motors 2000 r/min (1 to 5 kW)

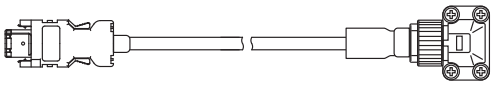
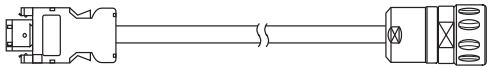
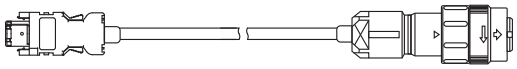
Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT/ML2	G5 Analog/pulse
①	400 V	**Incremental encoder (20 bit)** Shaft end with key	Without brake	4.77 Nm	1000 W	R88M-KH1K020F-S1	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-KH1K520F-S1	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-KH2K020F-S1	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-KH3K020F-S1	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-KH4K020F-S1	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-KH5K020F-S1	R88D-KN50F-□	R88D-KT50F
			With brake	4.77 Nm	1000 W	R88M-KH1K020F-BS1	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-KH1K520F-BS1	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-KH2K020F-BS1	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-KH3K020F-BS1	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-KH4K020F-BS1	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-KH5K020F-BS1	R88D-KN50F-□	R88D-KT50F
		Absolute encoder (17 bit) Shaft end with key	Without brake	4.77 Nm	1000 W	R88M-KH1K020C-S1	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-KH1K520C-S1	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-KH2K020C-S1	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-KH3K020C-S1	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-KH4K020C-S1	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-KH5K020C-S1	R88D-KN50F-□	R88D-KT50F
			With brake	4.77 Nm	1000 W	R88M-KH1K020C-BS1	R88D-KN10F-□	R88D-KT10F
				7.16 Nm	1500 W	R88M-KH1K520C-BS1	R88D-KN15F-□	R88D-KT15F
				9.55 Nm	2000 W	R88M-KH2K020C-BS1	R88D-KN20F-□	R88D-KT20F
				14.3 Nm	3000 W	R88M-KH3K020C-BS1	R88D-KN30F-□	R88D-KT30F
				19.1 Nm	4000 W	R88M-KH4K020C-BS1	R88D-KN50F-□	R88D-KT50F
				23.9 Nm	5000 W	R88M-KH5K020C-BS1	R88D-KN50F-□	R88D-KT50F

Servo motors 1500 r/min (7.5 kW)

Symbol	Specifications					Servo motor model	Compatible servo drives ②	
	Voltage	Encoder and design		Rated torque	Capacity		G5 EtherCAT	G5 Analog/pulse
①	400 V	**Absolute encoder (17 bit)** Shaft end with key	Without brake	47.8 Nm	7500 W	R88M-KH7K515C-S1	R88D-KN75F-ECT	R88D-KT75F
			With brake	47.8 Nm	7500 W	R88M-KH7K515C-BS1	R88D-KN75F-ECT	R88D-KT75F

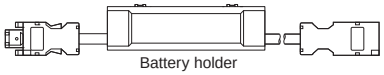
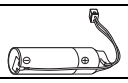
Encoder cables

For absolute and incremental encoders

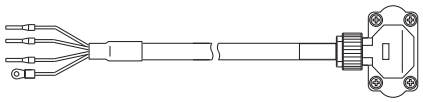
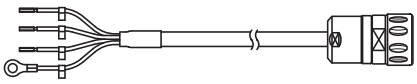
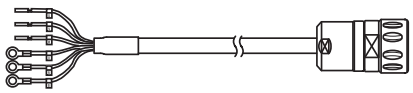
Symbol	Specifications		Model	Appearance
③	Encoder cable for servomotors R88M-K(050/100/200/400/750)30(H/T)□	1.5 m	R88A-CRKA001-5CR-E	
		3 m	R88A-CRKA003CR-E	
		5 m	R88A-CRKA005CR-E	
		10 m	R88A-CRKA010CR-E	
		15 m	R88A-CRKA015CR-E	
		20 m	R88A-CRKA020CR-E	
	Encoder cable for servomotors R88M-KH(200/400/750)30(H/T)□	3 m	R88A-CRWA003C-DE	
		5 m	R88A-CRWA005C-DE	
		10 m	R88A-CRWA010C-DE	
		15 m	R88A-CRWA015C-DE	
		20 m	R88A-CRWA020C-DE	
	Encoder cable for servomotors R88M-K(1K0/1K5)30(H/T)□ R88M-K(750/1K0/1K5/2K0/3K0/4K0/5K0)30(F/C)□ R88M-K(400/600/1K0/1K5/2K0/3K0/4K0/5K0)20□ R88M-K(7K5/11K0/15K0)15□ R88M-K(900/2K0/3K0/4K5/6K0)10□ R88M-KH(1K0/1K5/2K0/3K0/4K0/5K0)20(F/C)□ R88M-KH7K515C□	1.5 m	R88A-CRKC001-5NR-E	
		3 m	R88A-CRKC003NR-E	
		5 m	R88A-CRKC005NR-E	
		10 m	R88A-CRKC010NR-E	
		15 m	R88A-CRKC015NR-E	
		20 m	R88A-CRKC020NR-E	

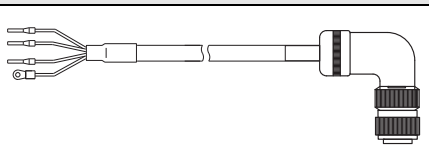
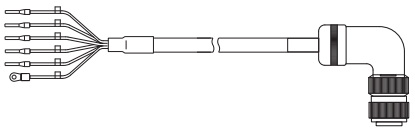
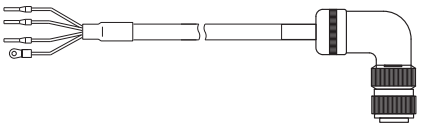
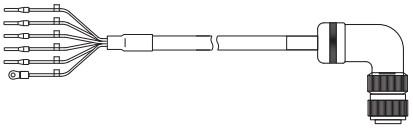
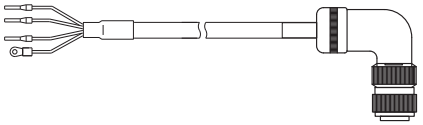
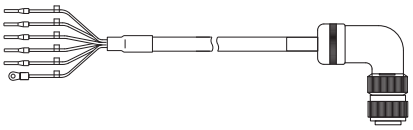
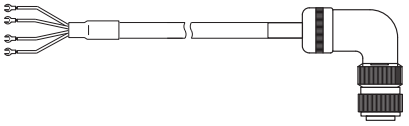
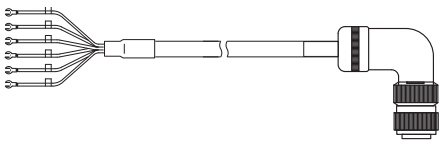
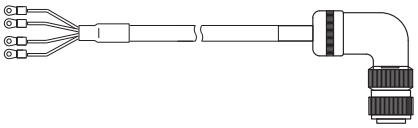
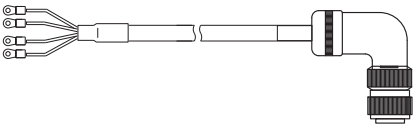
Note: For servomotors fitted with an absolute encoder you have to add the extension battery cable R88A-CRGD0R3C□ (see below) or connect a backup battery in the CN1 I/O connector.

Absolute encoder battery cable (encoder extension cable only)

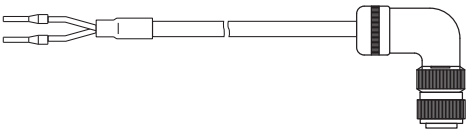
Symbol	Specifications			Model	Appearance
④	Absolute encoder battery cable	Battery not included	0.3 m	R88A-CRGD0R3C-E	 Battery holder
		Battery included	0.3 m	R88A-CRGD0R3C-BS-E	
	Absolute encoder backup battery	2,000 mA.h 3.6V	-	R88A-BAT01G	

Power cables

Symbol	Specifications			Model	Appearance
⑤	For 200 V servomotors R88M-K(050/100/200/400/750)30(H/T)-□□S2 **Note:** for servomotors with brake R88M-K(050/100/200/400/750)30(H/T)-BS2, the separate brake cable R88A-CAKA□□□BR-E is needed	Power cable only (without brake)	1.5 m	R88A-CAKA001-5SR-E	
			3 m	R88A-CAKA003SR-E	
			5 m	R88A-CAKA005SR-E	
			10 m	R88A-CAKA010SR-E	
			15 m	R88A-CAKA015SR-E	
			20 m	R88A-CAKA020SR-E	
	For 200 V servomotors R88M-KH(200/400/750)30(H/T)-□□S2	without brake	3 m	R88A-CAWA003S-DE	
			5 m	R88A-CAWA005S-DE	
			10 m	R88A-CAWA010S-DE	
			15 m	R88A-CAWA015S-DE	
			20 m	R88A-CAWA020S-DE	
		with brake	3 m	R88A-CAWA003B-DE	
			5 m	R88A-CAWA005B-DE	
			10 m	R88A-CAWA010B-DE	
			15 m	R88A-CAWA015B-DE	
			20 m	R88A-CAWA020B-DE	

Symbol	Specifications			Model	Appearance
⑤	For 200 V servomotors R88M-K(1K0/1K5)30(H/T)-□□S2 R88M-K(1K0/1K5)20(H/T)-□□S2 R88M-K90010(H/T)-□□S2	without brake	1.5 m	R88A-CAGB001-5SR-E	
			3 m	R88A-CAGB003SR-E	
			5 m	R88A-CAGB005SR-E	
			10 m	R88A-CAGB010SR-E	
			15 m	R88A-CAGB015SR-E	
			20 m	R88A-CAGB020SR-E	
		with brake	1.5 m	R88A-CAGB001-5BR-E	
			3 m	R88A-CAGB003BR-E	
			5 m	R88A-CAGB005BR-E	
			10 m	R88A-CAGB010BR-E	
			15 m	R88A-CAGB015BR-E	
			20 m	R88A-CAGB020BR-E	
	For 400 V servomotors R88M-K(750/1K0/1K5/2K0)30(F/C)-□□S2 R88M-K(400/600/1K0/1K5/2K0)20(F/C)-□□S2 R88M-K90010(F/C)-□□S2 R88M-KH(1K0/1K5)20(F/C)-□S1	without brake	1.5 m	R88A-CAGB001-5SR-E	
			3 m	R88A-CAGB003SR-E	
			5 m	R88A-CAGB05SR-E	
			10 m	R88A-CAGB010SR-E	
			15 m	R88A-CAGB015SR-E	
			20 m	R88A-CAGB020SR-E	
		with brake	1.5 m	R88A-CAKF001-5BR-E	
			3 m	R88A-CAKF003BR-E	
			5 m	R88A-CAKF005BR-E	
			10 m	R88A-CAKF010BR-E	
			15 m	R88A-CAKF015BR-E	
			20 m	R88A-CAKF020BR-E	
	For 400 V servomotors R88M-KH2K020(F/C)-□S1	without brake	1.5 m	R88A-CAKC001-5SR-E	
			3 m	R88A-CAKC003SR-E	
			5 m	R88A-CAKC005SR-E	
			10 m	R88A-CAKC010SR-E	
			15 m	R88A-CAKC015SR-E	
			20 m	R88A-CAKC020SR-E	
		with brake	1.5 m	R88A-CAKF001-5BR-E	
			3 m	R88A-CAKF003BR-E	
			5 m	R88A-CAKF005BR-E	
			10 m	R88A-CAKF010BR-E	
			15 m	R88A-CAKF015BR-E	
			20 m	R88A-CAKF020BR-E	
	For 400 V servomotors R88M-K(3K0/4K0/5K0)30(F/C)-□□S2 R88M-K(3K0/4K0/5K0)20(F/C)-□□S2 R88M-K(2K0/3K0)10(F/C)-□□S2 R88M-K4K510C-□□S2 R88M-KH(3K0/4K0/5K0)20(F/C)-□S1	without brake	1.5 m	R88A-CAGD001-5SR-E	
			3 m	R88A-CAGD003SR-E	
			5 m	R88A-CAGD005SR-E	
			10 m	R88A-CAGD010SR-E	
			15 m	R88A-CAGD015SR-E	
			20 m	R88A-CAGD020SR-E	
		with brake	1.5 m	R88A-CAGD001-5BR-E	
			3 m	R88A-CAGD003BR-E	
			5 m	R88A-CAGD005BR-E	
			10 m	R88A-CAGD010BR-E	
			15 m	R88A-CAGD015BR-E	
			20 m	R88A-CAGD020BR-E	
	For 400 V servomotors R88M-K6K010C-□□S2 R88M-K7K515C-□□S2 R88M-KH7K515C-□S1 **Note:** for servomotors with brake R88M- K(6K010/7K515)C-BS2 and R88M-KH7K515C-BS1 the separate brake cable R88A-CAGE□□□BR-E is needed	Power cable only (without brake)	1.5 m	R88A-CAKE001-5SR-E	
			3 m	R88A-CAKE003SR-E	
			5 m	R88A-CAKE005SR-E	
			10 m	R88A-CAKE010SR-E	
			15 m	R88A-CAKE015SR-E	
			20 m	R88A-CAKE020SR-E	
	For 400 V servomotors R88M-K(11K0/15K0)15C-□□S2 **Note:** for servomotors with brake R88M-K(11K0/15K0)15C-BS2, the separate brake cable R88A-CAGE□□□BR-E is needed	Power cable only (without brake)	1.5 m	R88A-CAKG001-5SR-E	
			3 m	R88A-CAKG003SR-E	
			5 m	R88A-CAKG005SR-E	
			10 m	R88A-CAKG010SR-E	
			15 m	R88A-CAKG015SR-E	
			20 m	R88A-CAKG020SR-E	

Brake cables (for 200 V 50 to 750 W servo motors and 400 V 6 to 15 kW servo motors)

Symbol	Specifications		Model	Appearance
⑥	Brake cable only. For 200 V servo motors with brake R88M-K(050/100/200/400/750)30(H/T)-BS2	1.5 m	R88A-CAKA001-5BR-E	
		3 m	R88A-CAKA003BR-E	
		5 m	R88A-CAKA005BR-E	
		10 m	R88A-CAKA010BR-E	
		15 m	R88A-CAKA015BR-E	
		20 m	R88A-CAKA020BR-E	
	Brake cable only. For 400 V servo motors with brake R88M-K6K010C-BS2 R88M-K(7K5/11K0/15K0)15C-BS2 R88M-KH7K515C-BS1	1.5 m	R88A-CAGE001-5BR-E	
		3 m	R88A-CAGE003BR-E	
		5 m	R88A-CAGE005BR-E	
		10 m	R88A-CAGE0010BR-E	
		15 m	R88A-CAGE015BR-E	
		20 m	R88A-CAGE020BR-E	

Connectors for encoder, power and brake cables

Specifications		Applicable Servomotor	Model
Connectors for making encoder cables	Drive side (CN2)	All models	R88A-CNW01R
	Motor side	R88M-K(050/100/200/400/750)30(H/T)□	R88A-CNK02R
	Motor side	R88M-KH(200/400/750)□	SPOC-17H-FRON169
	Motor side	R88M-K(1K0/1K5)30(H/T)□ R88M-K(750/1K0/1K5/2K0/3K0/4K0/5K0)30(F/C)□ R88M-K(400/600/1K0/1K5/2K0/3K0/4K0/5K0)20□ R88M-K(900/2K0/3K0)10□ R88M-K(4K5/6K0)10C-□ R88M-K(7K5/11K0/15K0)15C-□ R88M-KH(1K0/1K5/2K0/3K0/4K0/5K0/7K5)□	R88A-CNK04R
Connectors for making power cables	Motor side	R88M-K(050/100/200/400/750)30(H/T)□	R88A-CNK11A
	Motor side	R88M-KH(200/400/750)30(H/T)□	SPOC-06K-FSDN169
	Motor side	R88M-K(1K0/1K5)30(H/T)-S2 R88M-K(1K0/1K5)20(H/T)-S2 R88M-K90010(H/T)-S2 R88M-K(750/1K0/1K5/2K0)30(F/C)-S2, R88M-K(400/600/1K0/1K5/2K0)20(F/C)-S2 R88M-K90010(F/C)-S2 R88M-KH(1K0/1K5)20(F/C)-S1	MS3108E20-4S
	Motor side	R88M-K(1K0/1K5)30(H/T)-BS2 R88M-K(1K0/1K5)20(H/T)-BS2 R88M-K90010(H/T)-BS2	MS3108E20-18S
	Motor side	R88M-K(750/1K0/1K5/2K0/3K0/4K0/5K0)30(F/C)-BS2 R88M-K(400/600/1K0/1K5/2K0/3K0/4K0/5K0)20(F/C)-BS2 R88M-K(900/2K0/3K0)10(F/C)-BS2 R88M-K4K510C-BS2 R88M-KH(1K0/1K5/2K0/3K0/4K0/5K0)20(F/C)-BS1	MS3108E24-11S
	Motor side	R88M-K(3K0/4K0/5K0)30(F/C)-S2 R88M-K(3K0/4K0/5K0)20(F/C)-S2 R88M-K(2K0/3K0)10(F/C)-S2 R88M-K4K510C-S2 R88M-KH(2K0/3K0/4K0/5K0)20(F/C)-S1	MS3108E22-22S
	Motor side	R88M-K6K010C-□ R88M-K(7K5/11K0/15K0)15C-□ R88M-KH7K515C-□S1	MS3108E32-17S
Connector for brake cable	Motor side	R88M-K(050/100/200/400/750)30(H/T)-BS2	R88A-CNK11B
	Motor side	R88M-K6K010C-BS2 R88M-K(7K5/11K0/15K0)15C-BS2 R88M-KH7K515C-BS1	MS3108E14S-2S

Note: 1. All cables listed are flexible and shielded (except the R88A-CAKA□□□-BR-E which is only a flexible cable).
2. All connectors and cables listed have IP67 class (except R88A-CNW01R connector and R88A-CRGD0R3C cable).

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I100E-EN-04

In the interest of product improvement, specifications are subject to change without notice.