

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

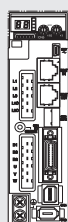
- 230 VAC from 50 W to 1.5 kW  
(rated torque from 0.16 to 8.59 Nm)
- 400 VAC from 400 W to 15 kW  
(rated torque from 1.91 Nm to 95.5 Nm)



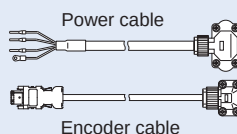
## System configuration

(Refer to servo drive chapter)

Servo drive options

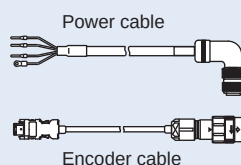


**Accurax G5 servo drives**  
EtherCAT, ML2 and  
Analogue/pulse models

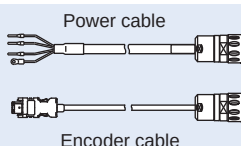


**Standard servo motors**

3000 rpm (50 W to 750 W)

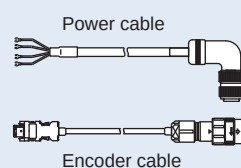


3000 rpm (750 W to 5 kW)  
2000 rpm (400 W to 5 kW)  
1000 rpm (900 W to 3 kW)



**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 <sup>-1</sup> | 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  |
|                                                                                                                                            |         |                        | 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  |
| <br>230 V<br>(1 kW to 1.5 kW)<br>400 V<br>(400 W to 5 kW) | 400 V   | 2000 min <sup>-1</sup> | 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  |
|                                                                                                                                            |         |                        | 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  |
|                                                                                                                                            |         |                        | 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  |
|                                                                                                                                            |         |                        | 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  |
|                                                                                                                                            |         |                        | 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  |
|                                                                                                                                            |         |                        | 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  | —               |
| <br>7.5 kW to 15 kW                                       | 400 V   | 1500 min <sup>-1</sup> | 8.59 Nm      | 900 W    | R88M-K90010(H/T)-□ | R88D-KN15H-ECT                | R88D-KT15H   | R88D-KN15H-ML2  |
|                                                                                                                                            |         |                        | 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 <sup>-1</sup> | 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  |
| <br>1 kW to 5 kW | 400 V   | 2000 min <sup>-1</sup> | 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  |
|                                                                                                     |         |                        | 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  |
|                                                                                                     |         | 1500 min <sup>-1</sup> | 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

**R88M-K05030H-BOS2**

Accurax G5 servomotor

Capacity

|      |        |
|------|--------|
| 050  | 50 W   |
| 100  | 100 W  |
| 200  | 200 W  |
| 400  | 400 W  |
| 600  | 600 W  |
| 750  | 750 W  |
| 900  | 900 W  |
| 1K0  | 1 kW   |
| 1K5  | 1.5 kW |
| 2K0  | 2 kW   |
| 3K0  | 3 kW   |
| 4K0  | 4 kW   |
| 4K5  | 4.5 kW |
| 5K0  | 5 kW   |
| 6K0  | 6 kW   |
| 7K5  | 7.5 kW |
| 11K0 | 11 kW  |
| 15K0 | 15 kW  |

Rated Speed (r/min)

|    |      |
|----|------|
| 10 | 1000 |
| 15 | 1500 |
| 20 | 2000 |
| 30 | 3000 |

Shaft end specifications

|       |                                  |
|-------|----------------------------------|
| Blank | Straight shaft, no key           |
| S2    | Straight, key, tapped (standard) |

Oil seal specifications

|       |             |
|-------|-------------|
| Blank | No oil seal |
| O     | Oil seal    |

Brake specifications

|       |          |
|-------|----------|
| Blank | No brake |
| B     | Brake    |

Voltage and encoder specifications

H: 230 V and 20-bit incremental encoder  
T: 230 V and 17-bit absolute encoder  
F: 400 V and 20-bit incremental encoder  
C: 400 V and 17-bit absolute encoder

High inertia servo motors

**R88M-KH1K020F-BOS1-D**

Accurax G5 high inertia servomotor

Capacity

|     |        |
|-----|--------|
| 200 | 200 W  |
| 400 | 400 W  |
| 750 | 750 W  |
| 1K0 | 1 kW   |
| 1K5 | 1.5 kW |
| 2K0 | 2 kW   |
| 3K0 | 3 kW   |
| 4K0 | 4 kW   |
| 5K0 | 5 kW   |
| 7K5 | 7.5 kW |

Rated Speed (r/min)

|    |      |
|----|------|
| 15 | 1500 |
| 20 | 2000 |
| 30 | 3000 |

Circular connector (only for 230 V models)

Shaft end specifications

|       |                                                       |
|-------|-------------------------------------------------------|
| Blank | Straight shaft, no key                                |
| S1    | 400 V motor models - Shaft end with key (standard)    |
| S2    | 230 V motor models - Straight, key, tapped (standard) |

Oil seal specifications

|       |             |
|-------|-------------|
| Blank | No oil seal |
| O     | Oil seal    |

Brake specifications

|       |          |
|-------|----------|
| Blank | No brake |
| B     | Brake    |

Voltage and encoder specifications

H: 230 V and 20-bit incremental encoder  
T: 230 V and 17-bit absolute encoder  
F: 400 V and 20-bit incremental encoder  
C: 400 V and 17-bit absolute encoder

## Servo motor specifications

### Standard servo motors 3000 r/min, 230 V

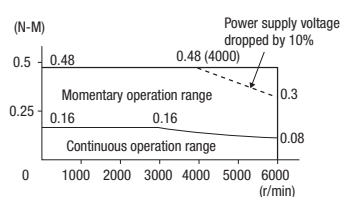
#### Ratings and specifications

| 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 <sup>-1</sup>                                   | 3000                                                              |          |          |          |                 |                             |          |          |
| Max. speed                            | min <sup>-1</sup>                                   | 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 <sup>2</sup> ×10 <sup>-4</sup> (without brake) | 0.025                                                             | 0.051    | 0.14     | 0.26     | 0.87            | 2.03                        | 2.84     |          |
|                                       | kg·m <sup>2</sup> ×10 <sup>-4</sup> (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 <sup>1</sup>                                                   |          |          |          | 20 <sup>1</sup> | 15 <sup>1</sup>             |          |          |
| 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 <sup>2</sup> ×10 <sup>-4</sup>                               |          | 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 <sup>2</sup>                        |          |          |          |                 |                             |          |          |
|                                       | Mounting                                            | Flange-mounted                                                    |          |          |          |                 |                             |          |          |

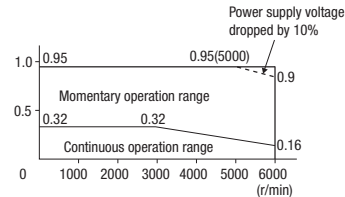
\*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

#### Torque-speed characteristics

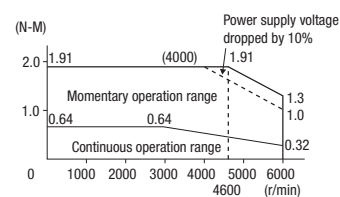
R88M-K05030H/T (50 W)



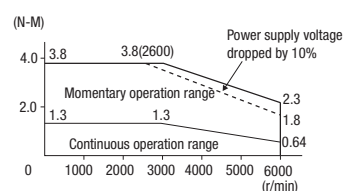
R88M-K10030H/T (100 W)



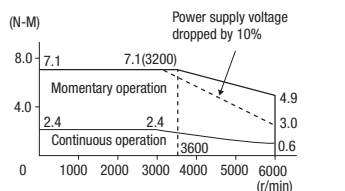
R88M-K20030H/T (200 W)



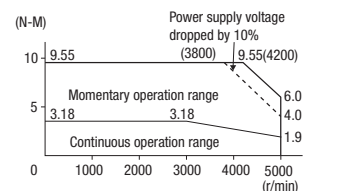
R88M-K40030H/T (400 W)



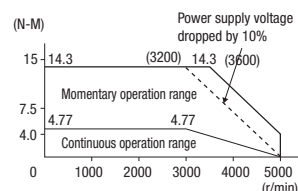
R88M-K75030H/T (750 W)



R88M-K1K030H/T (1 kW)



R88M-K1K530H/T (1.5 kW)



# Standard servo motors 3000 r/min, 400 V

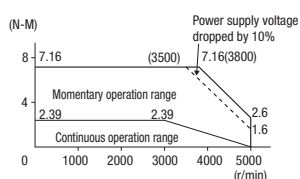
## Ratings and specifications

| 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 <sup>-1</sup>                                   | 3000                                                              |                  |          |          |          |          |          |      |
| Max. speed                            | min <sup>-1</sup>                                   | 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 <sup>2</sup> ×10 <sup>-4</sup> (without brake) | 1.61                                                              | 2.03             | 2.84     | 3.68     | 6.5      | 12.9     | 17.4     |      |
|                                       | kg·m <sup>2</sup> ×10 <sup>-4</sup> (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 <sup>*1</sup>                                                  | 15 <sup>*1</sup> |          |          |          |          |          |      |
| 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 <sup>2</sup> ×10 <sup>-4</sup>                               | 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/s <sup>2</sup>                        |                  |          |          |          |          |          |      |
| Mounting                              | Flange-mounted                                      |                                                                   |                  |          |          |          |          |          |      |

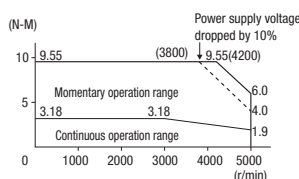
\*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

## Torque-speed characteristics

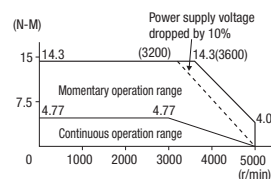
R88M-K75030F/C (750 W)



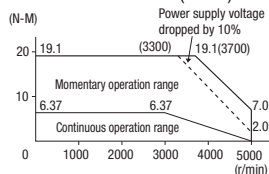
R88M-K1K030F/C (1 kW)



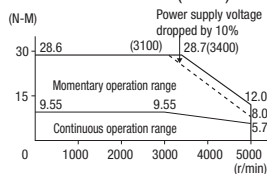
R88M-K1K530F/C (1.5 kW)



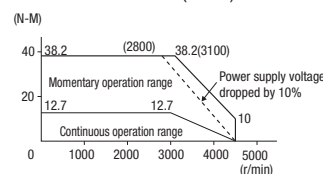
R88M-K2K030F/C (2 kW)



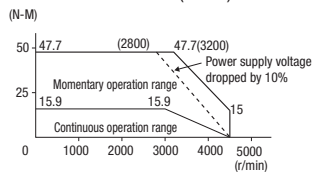
R88M-K3K030F/C (3 kW)



R88M-K4K030F/C (4 kW)



R88M-K5K030F/C (5 kW)



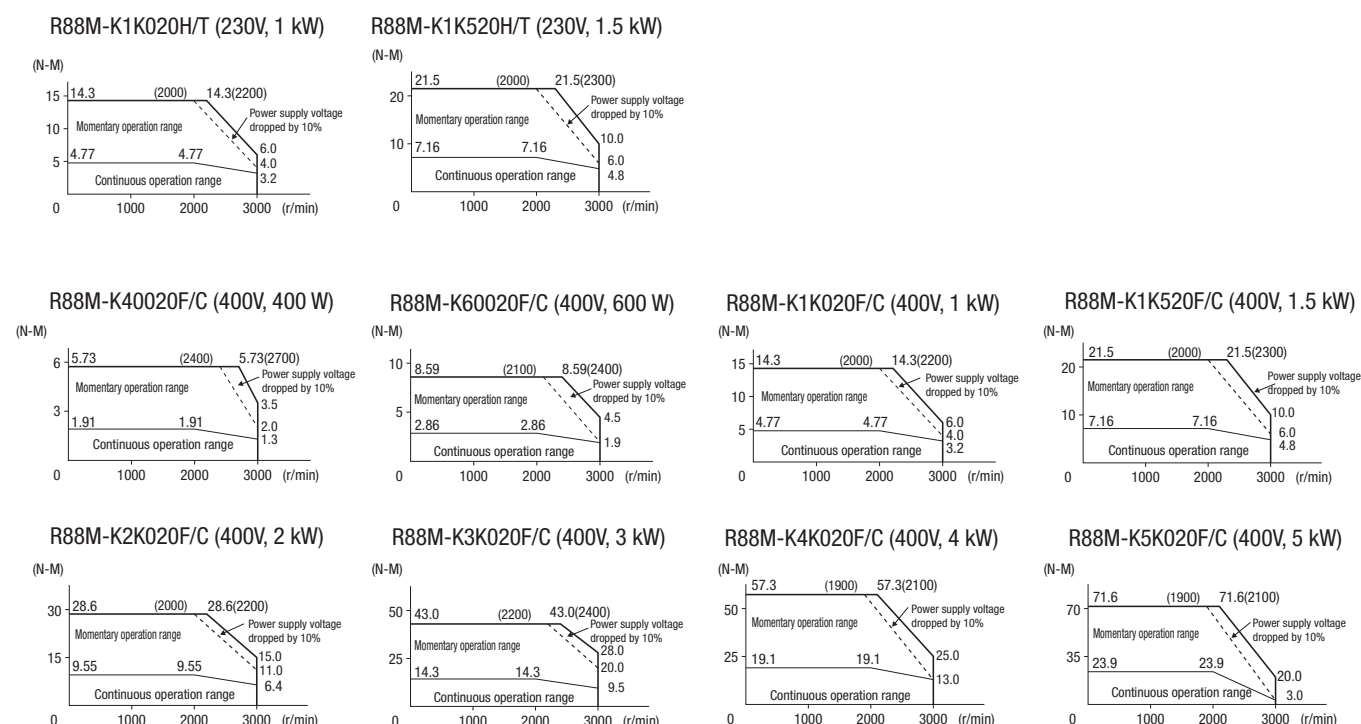
## Standard servo motors 2000 r/min, 230 V/400 V

### Ratings and specifications

| Voltage                          |                                                                      | 230 V                                                             |          |          |           | 400 V    |          |           |          |          |          |          |
|----------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------|----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|
| Servo motor model<br>R88M-K□     | 20-bit incremental<br>encoder                                        | 1K020H-□                                                          | 1K520H-□ | 40020F-□ | 60020F-□  | 1K020F-□ | 1K520F-□ | 2K020F-□  | 3K020F-□ | 4K020F-□ | 5K020F-□ |          |
|                                  | 17-bit absolute<br>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 <sup>-1</sup>                                                    | 2000                                                              |          |          |           |          |          |           |          |          |          |          |
| Max. speed                       | min <sup>-1</sup>                                                    | 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 <sup>2</sup> ×10 <sup>-4</sup><br>(without brake)               | 4.60                                                              | 6.70     | 1.61     | 2.03      | 4.60     | 6.70     | 8.72      | 12.9     | 37.6     | 48       |          |
|                                  | kg·m <sup>2</sup> ×10 <sup>-4</sup> (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 <sup>+1</sup>                                                  |          |          |           |          |          |           |          |          |          |          |
| 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 <sup>2</sup> ×10 <sup>-4</sup> | 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/s <sup>2</sup>                           |                                                                   |          |          |           |          |          |           |          |          |          |          |
| 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



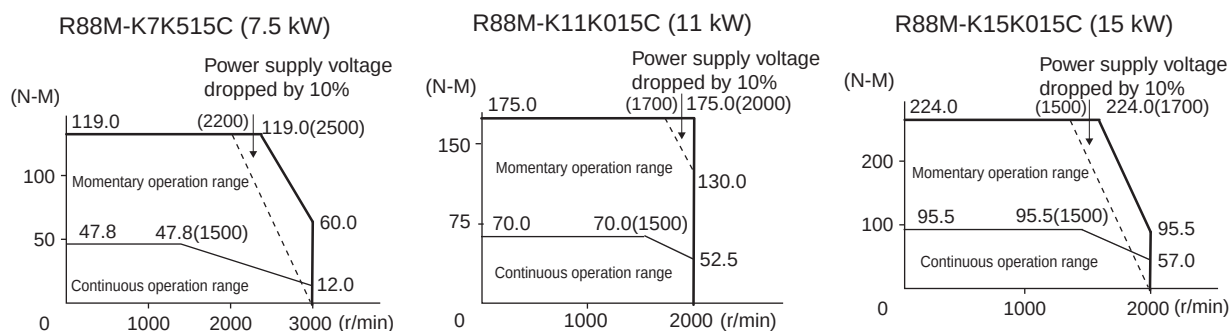
# Standard servo motors 1500 r/min, 400 V

## 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 <sup>-1</sup>                                   | 1500                                                              |           |           |
| Max. speed                            | min <sup>-1</sup>                                   | 3000                                                              | 2000      |           |
| Torque constant                       | N·m/A                                               | 1.54                                                              | 1.84      | 2.10      |
| Rotor moment of inertia (JM)          | kg·m <sup>2</sup> ×10 <sup>-4</sup> (without brake) | 101                                                               | 212       | 302       |
|                                       | kg·m <sup>2</sup> ×10 <sup>-4</sup> (with brake)    | 107                                                               | 220       | 311       |
| Allowable load moment of inertia (JL) | Multiple of (JM)                                    | 10 <sup>-1</sup>                                                  |           |           |
| 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%                                                        |           |           |
|                                       | Holding brake moment of inertia J                   | kg·m <sup>2</sup> ×10 <sup>-4</sup>                               | 4.7       | 7.1       |
|                                       | Power consumption (at 20°C)                         | W                                                                 | 34        | 26        |
|                                       | Current consumption (at 20°C)                       | A                                                                 | 1.4±10%   | 1.08±10%  |
|                                       | Static friction torque                              | N·m (minimum)                                                     | 58.8      | 100       |
|                                       | Rise time for holding torque                        | ms (max.)                                                         | 150       | 300       |
| Basic specifications                  | Release time                                        | ms (max)                                                          | 50        | 140       |
|                                       | 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% 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, IP67 (excluding shaft opening)    |           |           |
|                                       | Vibration resistance                                | Vibration acceleration 49 m/s <sup>2</sup>                        |           |           |
|                                       | 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



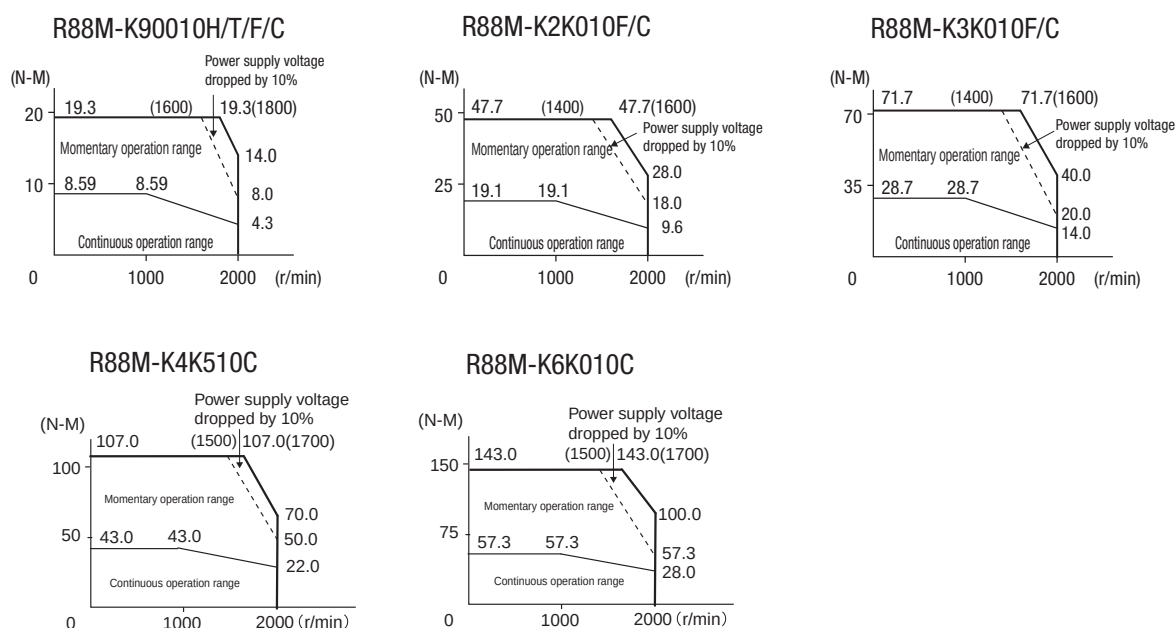
## Standard servo motors 1000 r/min, 230 V/400 V

### 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 <sup>-1</sup>                                   | 1000                                                              |          |          |          |          |          |
| Max. speed                            | min <sup>-1</sup>                                   | 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 <sup>2</sup> ×10 <sup>-4</sup> (without brake) | 6.70                                                              |          | 30.3     | 48.4     | 79.1     | 101      |
|                                       | kg·m <sup>2</sup> ×10 <sup>-4</sup> (with brake)    | 7.99                                                              |          | 31.4     | 49.2     | 84.4     | 107      |
| Allowable load moment of inertia (JL) | Multiple of (JM)                                    | 10 <sup>-1</sup>                                                  |          |          |          |          |          |
| 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%                                                        |          |          |          |          |          |
|                                       | Holding brake moment of inertia J                   | kg·m <sup>2</sup> ×10 <sup>-4</sup>                               |          | 1.35     |          | 4.7      |          |
|                                       | Power consumption (at 20°C)                         | W                                                                 |          | 19       | 31       | 34       |          |
|                                       | Current consumption (at 20°C)                       | A                                                                 |          | 0.79±10% |          | 1.3±10%  |          |
|                                       | Static friction torque                              | N·m (minimum)                                                     |          | 13.7     | 24.5     | 58.8     |          |
|                                       | Rise time for holding torque                        | ms (max.)                                                         |          | 100      | 80       | 150      |          |
|                                       | Release time                                        | ms (max)                                                          |          | 50       | 25       | 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% 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, IP67 (excluding shaft opening)    |          |          |          |          |          |
|                                       | Vibration resistance                                | Vibration acceleration 49 m/s <sup>2</sup>                        |          |          |          |          |          |
| 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



# High inertia servo motors 3000 r/min, 230 V

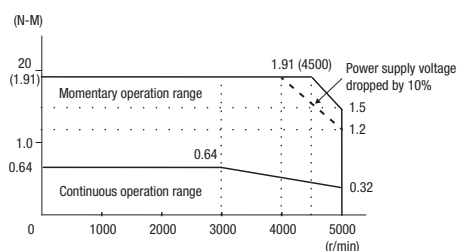
## Ratings and specifications

| 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 <sup>-1</sup>                                   | 3000                                                                              |          |          |
| Max. speed                            | min <sup>-1</sup>                                   | 5000                                                                              |          |          |
| Torque constant                       | N·m/A                                               | 0.29±10%                                                                          | 0.36±10% | 0.45±10% |
| Rotor moment of inertia (JM)          | kg·m <sup>2</sup> ×10 <sup>-4</sup> (without brake) | 0.42                                                                              | 0.67     | 1.51     |
|                                       | kg·m <sup>2</sup> ×10 <sup>-4</sup> (with brake)    | 0.45                                                                              | 0.70     | 1.61     |
| Allowable load moment of inertia (JL) | Multiple of (JM)                                    | 30 <sup>*1</sup>                                                                  |          |          |
| 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                                                                               |          |          |
| Allowable thrust load                 | N                                                   | 98                                                                                |          |          |
| 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 <sup>2</sup> ×10 <sup>-4</sup>                                               | 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       |
| Basic specifications                  | Release time                                        | ms (max)                                                                          | 15       | 20       |
|                                       | 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 <sup>2</sup>                                        |          |          |
|                                       | Mounting                                            | Flange-mounted                                                                    |          |          |

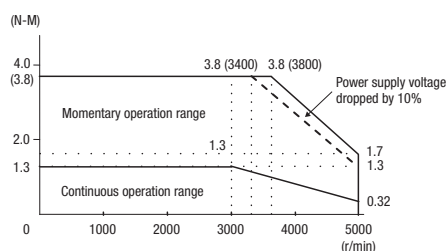
\*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

## Torque-speed characteristics

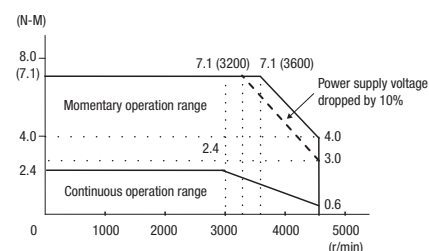
R88M-KH20030H/T (230 V, 200 W)



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

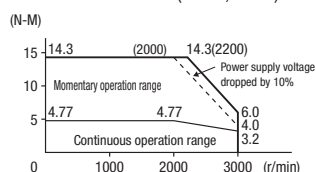
### Ratings and specifications

| R/min, Voltage                   |                                                        | 2000 r/min, 400 V                                                 |          |          |          |          |          | 1500 r/min, 400 V |
|----------------------------------|--------------------------------------------------------|-------------------------------------------------------------------|----------|----------|----------|----------|----------|-------------------|
| Servo motor model<br>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 <sup>-1</sup>                                      | 2000                                                              |          |          |          |          |          | 1500              |
| Max. speed                       | min <sup>-1</sup>                                      | 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 <sup>2</sup> ×10 <sup>-4</sup><br>(without brake) | 24.7                                                              | 37.1     | 57.8     | 90.2     | 112      | 162      | 273               |
|                                  | kg·m <sup>2</sup> ×10 <sup>-4</sup> (with brake)       | 26.0                                                              | 38.4     | 62.9     | 95.3     | 117      | 167      | 279               |
| Max. load moment of inertia (JL) | Multiple of (JM)                                       | 5 <sup>*1</sup>                                                   |          |          |          |          |          |                   |
| 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%                                                       |          |          |          |          |          |                   |
|                                  | Holding brake moment inertia (J)                       | kg·m <sup>2</sup> ×10 <sup>-4</sup> 1.35                          |          | 4.7      |          |          |          |                   |
|                                  | Power consumption (20°C)                               | W                                                                 | 14       | 19       | 31       |          |          | 34                |
|                                  | Current consumption (20°C)                             | A                                                                 | 0.59±10% | 0.79±10% | 1.30±10% |          |          | 1.40±10%          |
|                                  | Static friction torque                                 | N·m (minimum)                                                     | 4.9      | 13.7     | 24.5     |          |          | 58.8              |
|                                  | Rise time for holding torque                           | ms (max.)                                                         | 80       | 100      | 80       |          |          | 150               |
|                                  | Release time                                           | ms (max)                                                          | 70       | 50       | 25       |          |          | 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% 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, IP67 (excluding shaft opening)    |          |          |          |          |          |                   |
|                                  | Vibration resistance                                   | Vibration acceleration 49 m/s <sup>2</sup>                        |          |          |          |          |          |                   |
|                                  | Mounting                                               | Flange-mounted                                                    |          |          |          |          |          |                   |

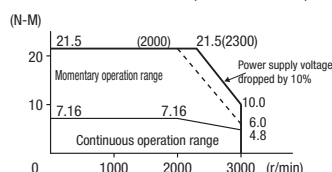
\*1 Applicable load inertia: The operable load inertia ratio (load inertia/rotor inertia) depends on the mechanical configuration and its rigidity. For a machine with high rigidity, operation is possible even with high load inertia. Select an appropriate motor and confirm that operation is possible.

### Torque-speed characteristics

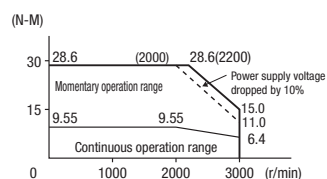
R88M-KH1K020F/C (400 V, 1 kW)



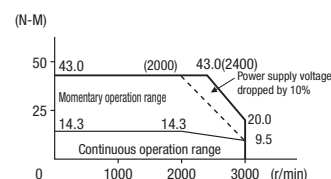
R88M-KH1K520F/C (400 V, 1.5 kW)



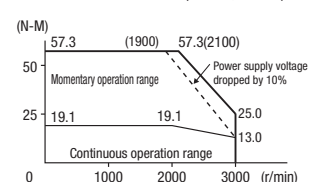
R88M-KH2K020F/C (400 V, 2 kW)



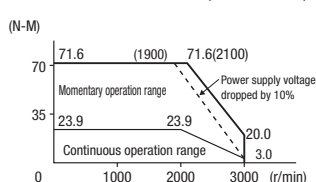
R88M-KH3K020F/C (400 V, 3 kW)



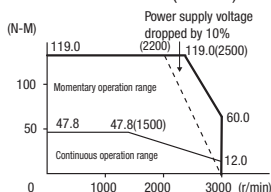
R88M-KH4K020F/C (400 V, 4 kW)



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



R88M-KH7K515C (7.5 kW)

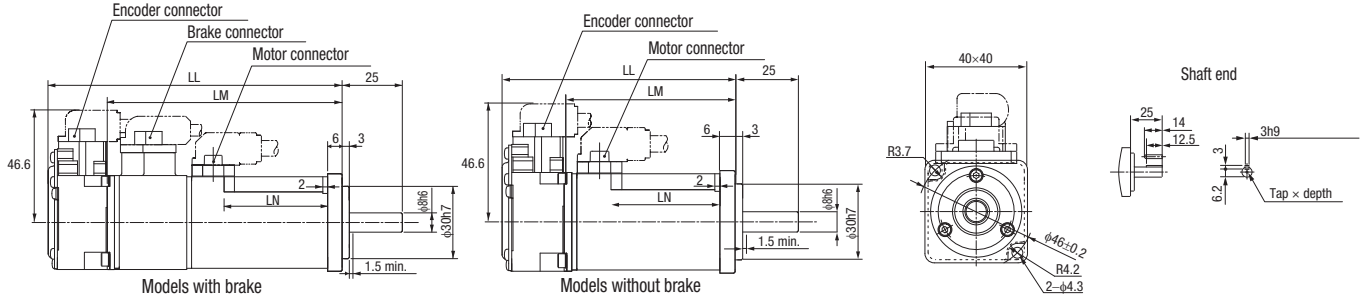


# Dimensions

## Standard servo motors

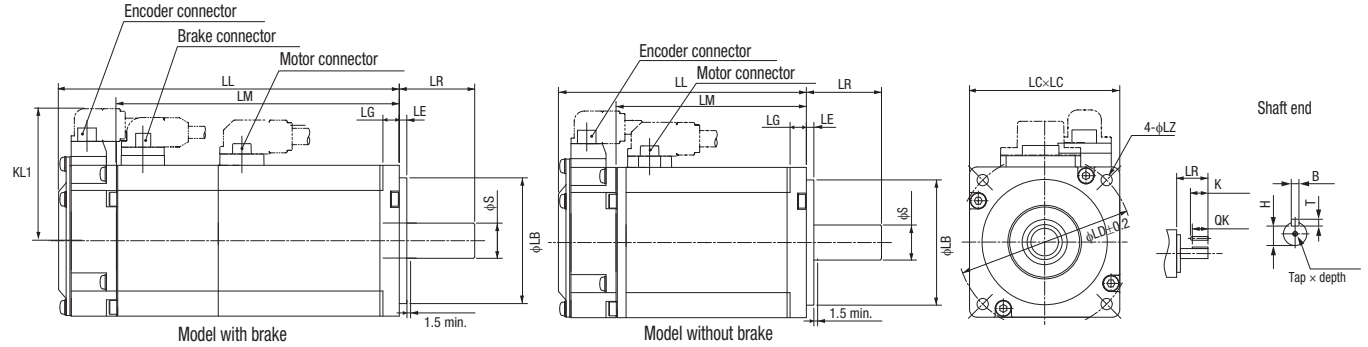
### Type 3000 r/min motors (230 V, 50 to 100 W)

| 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       |



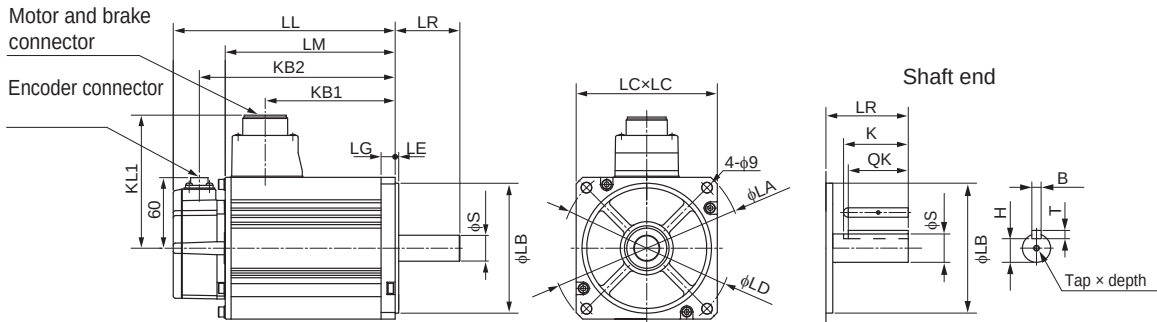
### Type 3000 r/min motors (230 V, 200 to 750 W)

| 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 <sup>h7</sup> | 60             | 70 | 3  | 6.5 | 4.5              | 11 <sup>h6</sup> | 20                   | 18 | 8.5             | 4 <sup>h9</sup> | 4        | M4 × 8L     | 0.82          | 1.3        |                 |  |
| R88M-K40030(H/T)-□S2 | 99    | 76            | 52.5 | 135.5 | 112.5      | 52.5 |    |                  |                |    |    |     | 14 <sup>h6</sup> | 25               | 22.5                 | 11 | 5 <sup>h9</sup> | 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 <sup>h7</sup> | 80             | 90 |    | 8   | 6                | 19 <sup>h6</sup> |                      | 22 | 15.5            | 6 <sup>h9</sup> | 6        |             | 2.3           | 3.1        |                 |  |



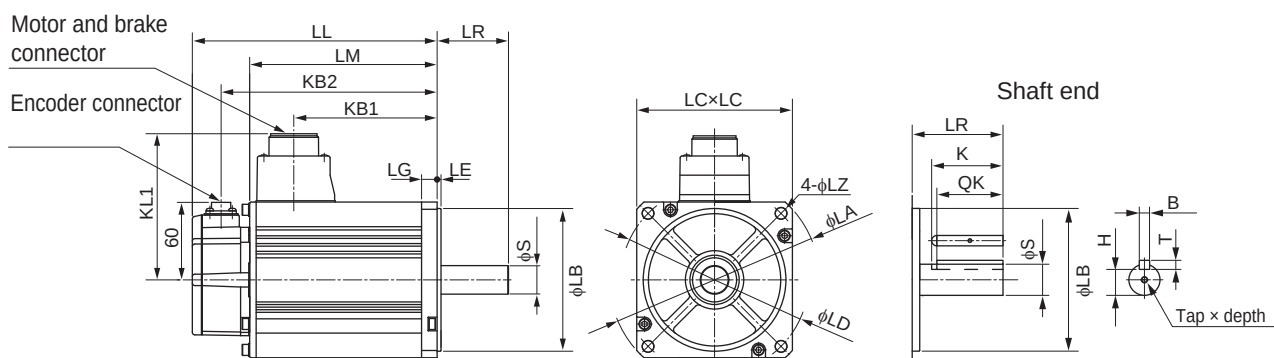
### Type 3000 r/min motors (230 V, 1 to 1.5 kW/400V, 750 W to 5 kW)

| Dimensions (mm) |                | Without brake |       |       |       |     | With brake |       |       |       |     | LR | Flange surface |                   |     |     |    |    | Shaft end dimensions |             |    |    |      |                 |   | Approx. Mass (kg) |            |
|-----------------|----------------|---------------|-------|-------|-------|-----|------------|-------|-------|-------|-----|----|----------------|-------------------|-----|-----|----|----|----------------------|-------------|----|----|------|-----------------|---|-------------------|------------|
| Voltage         | Model          | 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             | R88M-K□        |               |       |       |       |     |            |       |       |       |     |    |                |                   |     |     |    |    |                      |             |    |    |      |                 |   |                   |            |
|                 | 1K030(H/T)-□S2 | 141           | 97    | 66    | 119   | 101 | 168        | 124   | 66    | 146   | 101 | 55 | 135            | 95 <sup>h7</sup>  | 100 | 115 | 3  | 10 | 19 <sup>h6</sup>     | M5 × 12L    | 45 | 42 | 15.5 | 6 <sup>h9</sup> | 6 | 3.5               | 4.5        |
| 400             | 1K530(H/T)-□S2 | 159.5         | 115.5 | 84.5  | 137.5 |     | 186.5      | 142.5 | 84.5  | 164.5 |     |    |                |                   |     |     |    |    |                      |             |    |    |      |                 |   | 4.4               | 5.4        |
|                 | 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 <sup>h7</sup> | 120 | 145 |    | 12 | 22 <sup>h6</sup>     |             |    |    |      |                 |   | 8.3               | 9.4        |
|                 | 4K030(F/C)-□S2 | 208           | 164   | 127   | 186   | 118 | 233        | 189   | 127   | 211   | 118 | 65 | 165            |                   | 130 |     | 6  |    | 24 <sup>h6</sup>     | M8 × 20L    | 55 | 51 | 20   |                 |   | 11                | 12.6       |
|                 | 5K030(F/C)-□S2 | 243           | 199   | 162   | 221   |     | 268        | 224   | 162   | 246   |     |    |                |                   |     |     |    |    |                      |             |    |    |      |                 |   | 14                | 16         |



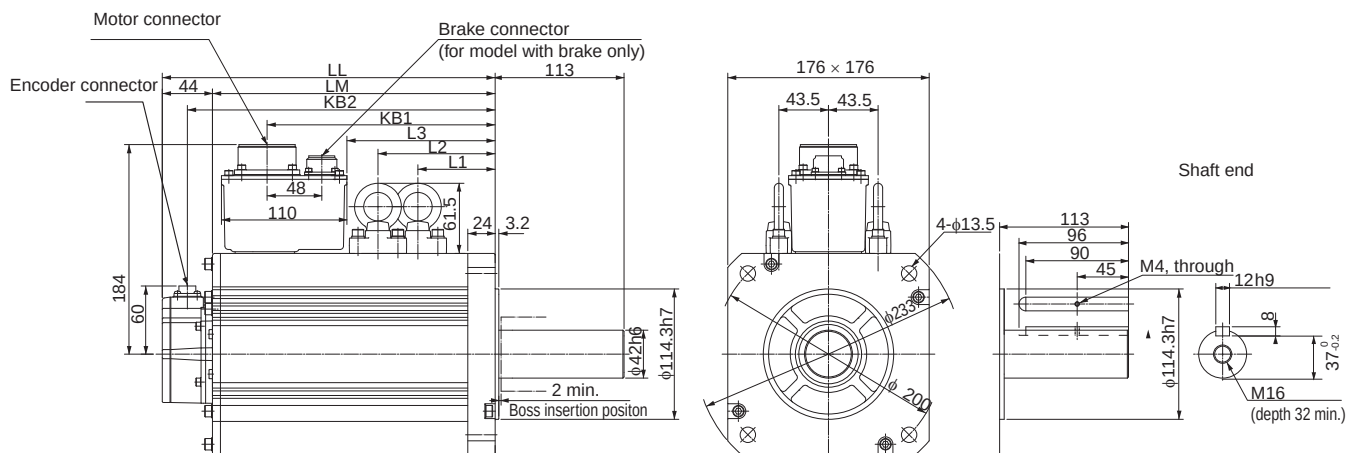
Type 2000 r/min motors (230 V, 1 to 1.5 kW /400 V, 400 W to 5 kW)

| Dimensions (mm) |                | Without brake |       |      |       |     | With brake |       |      |       |     | LR | Flange surface |                     |     |     |     |    |      | Shaft end dimensions |             |    |    |      |                  |   | Approx. mass (kg) |            |
|-----------------|----------------|---------------|-------|------|-------|-----|------------|-------|------|-------|-----|----|----------------|---------------------|-----|-----|-----|----|------|----------------------|-------------|----|----|------|------------------|---|-------------------|------------|
| Voltage         | Model          | 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 |
| R88M-K□         |                |               |       |      |       |     |            |       |      |       |     |    |                |                     |     |     |     |    |      |                      |             |    |    |      |                  |   |                   |            |
| 230             | 1K020(H/T)-□S2 | 138           | 94    | 60   | 116   | 116 | 163        | 119   | 60   | 141   | 116 | 55 | 165            | 110 <sup>h7</sup>   | 130 | 145 | 6   | 12 | 9    | 22 <sup>h6</sup>     | M5 × 12L    | 45 | 41 | 18   | 8 <sup>h9</sup>  | 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 <sup>h7</sup>    | 100 | 115 | 3   | 10 |      | 19 <sup>h6</sup>     |             |    | 42 | 15.5 | 6 <sup>h9</sup>  | 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 <sup>h7</sup>   | 130 | 145 | 6   | 12 |      | 22 <sup>h6</sup>     |             |    | 41 | 18   | 8 <sup>h9</sup>  | 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 <sup>h6</sup>     | 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 <sup>h7</sup> | 176 | 200 | 3.2 | 18 | 13.5 | 35 <sup>h6</sup>     | M12 × 25L   |    | 50 | 30   | 10 <sup>h9</sup> | 8 | 15.5              | 18.7       |
|                 | 5K020(F/C)-□S2 | 196           | 152   | 115  | 174   |     | 221        | 177   | 115  | 199   |     |    |                |                     |     |     |     |    |      |                      |             |    |    |      |                  |   |                   | 18.6       |



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

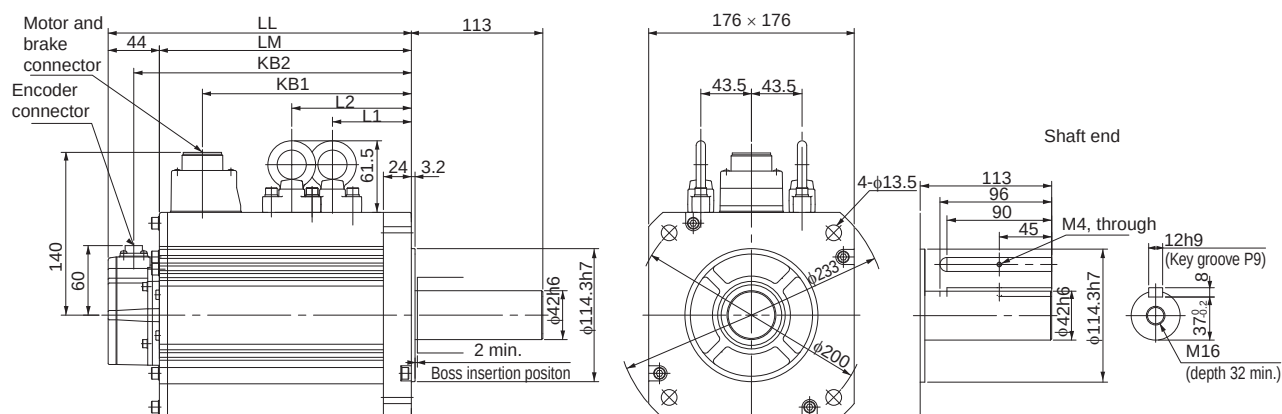
| Dimensions (mm) |            | Without brake |     |     |     |       |       |     | With brake |     |     |     |       |       |     | Approx. mass (kg) |            |
|-----------------|------------|---------------|-----|-----|-----|-------|-------|-----|------------|-----|-----|-----|-------|-------|-----|-------------------|------------|
| Voltage         | Model      | LL            | LM  | KB1 | KB2 | L1    | L2    | L3  | LL         | LM  | KB1 | KB2 | L1    | L2    | L3  | Without brake     | With brake |
| <b>R88M-K□</b>  |            |               |     |     |     |       |       |     |            |     |     |     |       |       |     |                   |            |
| 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       |





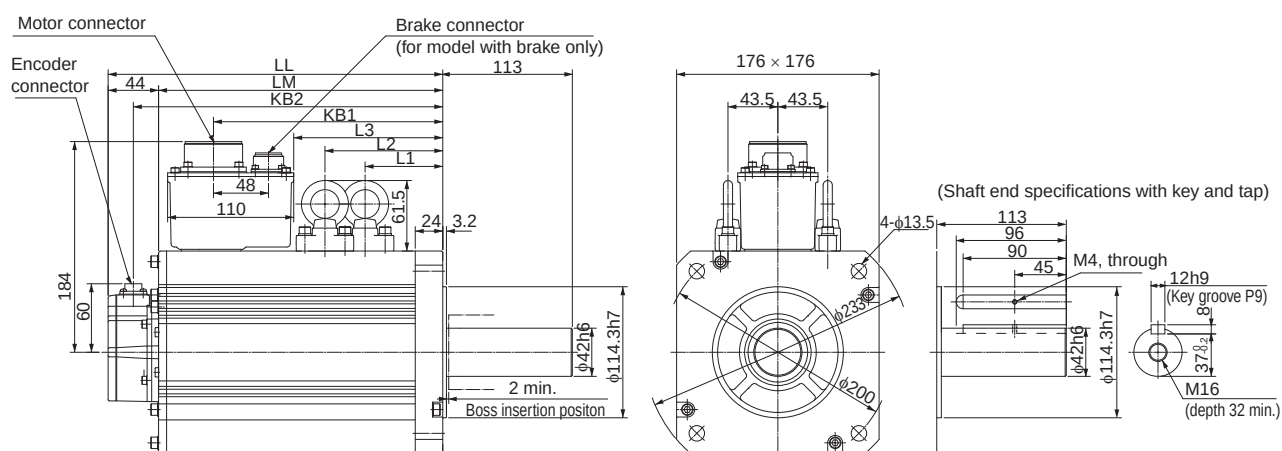
## Type 1000 r/min motors (400 V, 4.5 kW)

| Dimensions (mm) |                | Without brake |     |     |     |    |    | With brake |     |     |     |    |     | Approx. mass (kg) |            |
|-----------------|----------------|---------------|-----|-----|-----|----|----|------------|-----|-----|-----|----|-----|-------------------|------------|
| Voltage         | Model          | LL            | LM  | KB1 | KB2 | L1 | L2 | LL         | LM  | KB1 | KB2 | L1 | L2  | Without brake     | With brake |
|                 | <b>R88M-K□</b> |               |     |     |     |    |    |            |     |     |     |    |     |                   |            |
| 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)

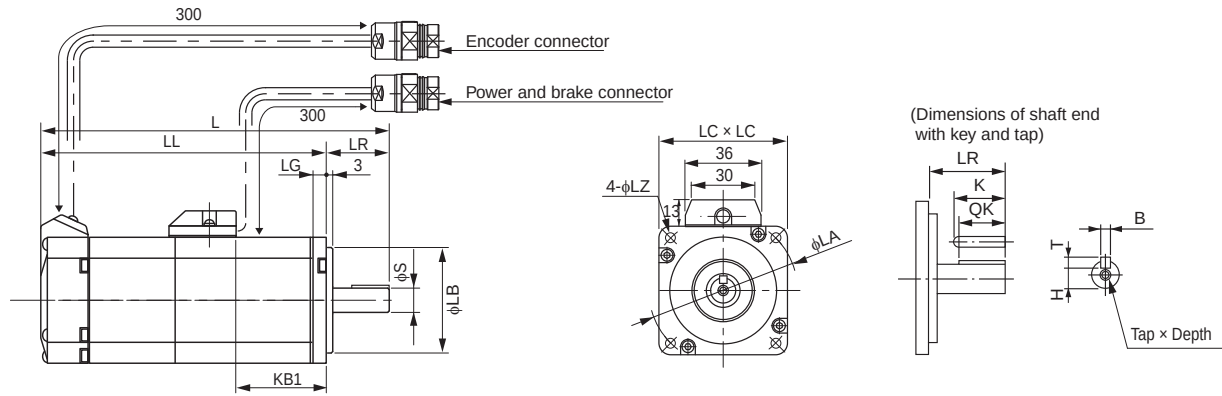
| Dimensions (mm) |            | Without brake |     |     |     |       |       |     | With brake |     |     |     |       |       |     | Approx. mass (kg) |            |
|-----------------|------------|---------------|-----|-----|-----|-------|-------|-----|------------|-----|-----|-----|-------|-------|-----|-------------------|------------|
| Voltage         | Model      | LL            | LM  | KB1 | KB2 | L1    | L2    | L3  | LL         | LM  | KB1 | KB2 | L1    | L2    | L3  | Without brake     | With brake |
|                 | R88M-K□    |               |     |     |     |       |       |     |            |     |     |     |       |       |     |                   |            |
| 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            | L             | LL    | L          | LL    |      |    | LA             | LB               | LC | LG  | LZ  | S                    | Tap x Depth | K  | QK   | H    | B               | T | Without brake     | With brake |
| 230             | R88M-KH□         |               |       |            |       |      |    |                |                  |    |     |     |                      |             |    |      |      |                 |   |                   |            |
|                 | 20030(H/T)-□S2-D | 129           | 99    | 165.5      | 135.5 | 42   | 30 | 70             | 50 <sup>h7</sup> | 60 | 6.5 | 4.5 | 11 <sup>h6</sup>     | M4x8L       | 20 | 18   | 8.5  | 4 <sup>h9</sup> | 4 | 0.96              | 1.4        |
|                 | 40030(H/T)-□S2-D | 148.5         | 118.5 | 185        | 155   | 61.5 |    |                |                  |    |     |     | 14 <sup>h6</sup>     | M5x10L      | 25 | 22.5 | 11   | 5 <sup>h9</sup> | 5 | 1.4               | 1.8        |
|                 | 75030(H/T)-□S2-D | 162.2         | 127.2 | 199.2      | 164.2 | 67.2 | 35 | 90             | 70 <sup>h7</sup> | 80 | 8   | 6   | 19 <sup>h6</sup>     | M5x10L      | 25 | 22   | 15.5 | 6 <sup>h9</sup> | 6 | 2.5               | 3.3        |

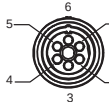


Encoder connector wiring



Cable length 300±30  
Connector optional  
Made by Hypertac  
SRUC-17G-MRW040 (MALE)

Power and brake connector wiring



Cable length 300±30  
Connector optional  
Made by Hypertac  
SRUC-06J-MSCN236 (MALE)

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

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

| 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)     |

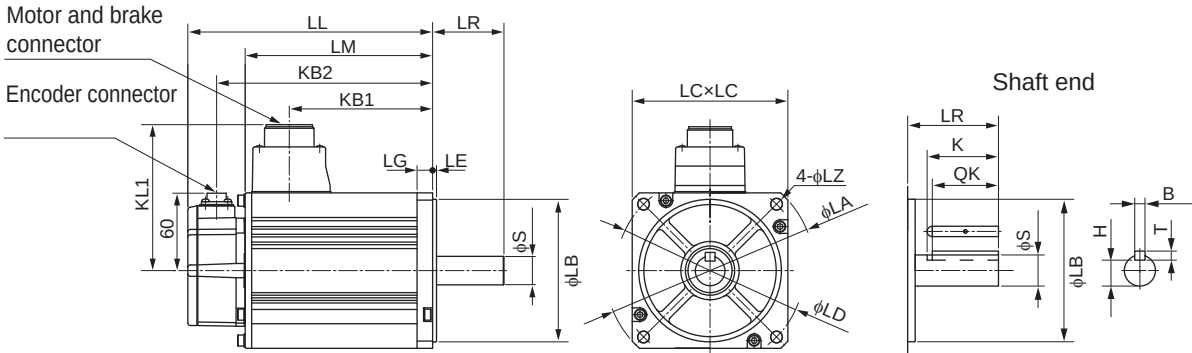
\*Note: Pins 4 and 5 used only for motors with brake.

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

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

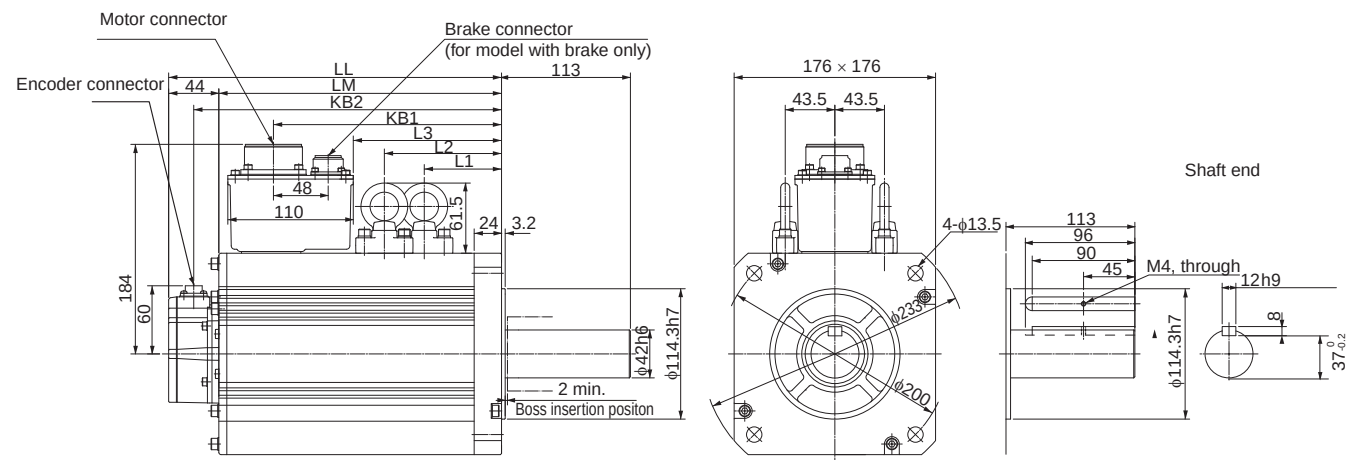
## Type 2000 r/min motors (400 V, 1 kW to 5 kW)

| Dimensions (mm) |                | Without brake |       |       |       |     | With brake |       |       |       |     | LR    | Flange surface |                     |     |     |     |    |      | Shaft end dimensions |    |    |    |                  |   | Approx. mass (kg) |            |
|-----------------|----------------|---------------|-------|-------|-------|-----|------------|-------|-------|-------|-----|-------|----------------|---------------------|-----|-----|-----|----|------|----------------------|----|----|----|------------------|---|-------------------|------------|
| Voltage         | Model          | 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             | R88M-KH□       |               |       |       |       |     |            |       |       |       |     |       |                |                     |     |     |     |    |      |                      |    |    |    |                  |   |                   |            |
|                 | 1K020(F/C)-□S1 | 173           | 129   | 95    | 151   | 116 | 201        | 157   | 92    | 179   | 118 | 70    | 165            | 110 <sup>h7</sup>   | 130 | 145 | 6   | 12 | 9    | 22 <sup>h6</sup>     | 45 | 41 | 18 | 8 <sup>h9</sup>  | 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        |
|                 | 2K020(F/C)-□S1 | 177           | 133   | 96    | 155   | 140 | 206        | 162   | 96    | 184   | 140 | 80    | 233            | 114.3 <sup>h7</sup> | 176 | 200 | 3.2 | 18 | 13.5 | 35 <sup>h6</sup>     | 55 | 50 | 30 | 10 <sup>h9</sup> | 8 | 12.2              | 15.5       |
|                 | 3K020(F/C)-□S1 | 196           | 152   | 115   | 174   |     |            | 225   | 181   | 115   |     | 203   |                |                     |     |     |     |    |      |                      |    |    |    |                  |   |                   | 16.0       |
|                 | 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)

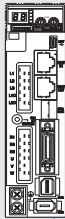
| Dimensions (mm) |            | Without brake |     |     |     |       |       |     | With brake |     |     |     |       |       |     | Approx. mass (kg) |            |
|-----------------|------------|---------------|-----|-----|-----|-------|-------|-----|------------|-----|-----|-----|-------|-------|-----|-------------------|------------|
| Voltage         | Model      | LL            | LM  | KB1 | KB2 | L1    | L2    | L3  | LL         | LM  | KB1 | KB2 | L1    | L2    | L3  | Without brake     | With brake |
|                 | R88M-KH□   |               |     |     |     |       |       |     |            |     |     |     |       |       |     |                   |            |
| 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

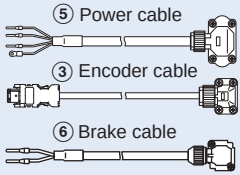
(Refer to servo drive chapter)

② Drive options

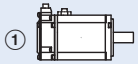


**Accurax G5 servo drive**  
EtherCAT, ML2 and  
Analogue/pulse models

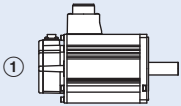
④ Extension cable for  
absolute encoder  
(with battery holder)



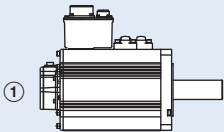
Standard servo motors



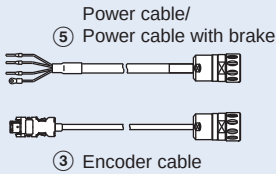
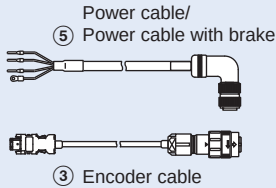
3000 rpm (50 W to 750 W)



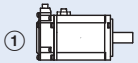
3000 rpm (750 W to 5 kW)  
2000 rpm (400 W to 5 kW)  
1000 rpm (900 W to 3 kW)



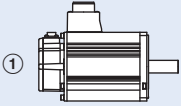
1500 rpm (7.5 kW to 15 kW)  
1000 rpm (4.5 kW to 6 kW)



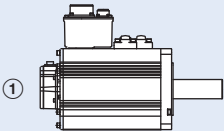
High inertia servo motors



3000 rpm (200 W to 750 W)



2000 rpm (1 kW to 5 kW)



1500 rpm (7.5 kW)

**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 |            |
| <div>①</div> <div></div> <div>230V (50 to 750 W)</div> <div></div> <div>230 V (1 kW to 1.5 kW)</div> <div>400 V (750 W to 5 kW)</div> | 230 V          | Incremental encoder (20 bit) | 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)    | 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 |
|                                                                                                                                                                                                                                                                                                         | 400 V          | Incremental encoder (20 bit) | Without brake | 4.77 Nm  | 1500 W            | R88M-K1K530T-BS2          | R88D-KN15H-□    | R88D-KT15H |
|                                                                                                                                                                                                                                                                                                         |                |                              |               | 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 |
|                                                                                                                                                                                                                                                                                                         |                | Absolute encoder (17 bit)    | Without brake | 15.9 Nm  | 5000 W            | R88M-K5K030F-BS2          | R88D-KN50F-□    | R88D-KT50F |
| 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 |            |
| <div></div> | 230 V          | Incremental encoder (20 bit)    | 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      |            |
|                                                                                              |                | Straight shaft with key and tap | 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)       | 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      |            |
|                                                                                              |                | Straight shaft with key and tap | 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)    | 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)       | 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 |
|  | 400 V          | Absolute encoder (17 bit)       | 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     |
|                                                                                     |                | Straight shaft with key and tap | 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 |
| <br>900 W - 3 kW<br><br><br>4.5 kW - 6 kW | 230 V          | Incremental encoder (20 bit)<br>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)<br>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)<br>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)<br>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      |
|                                                                                                                                                                                                             |                |                                                                 | With brake | 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      |
|                                                                                                                                                                                                             |                |                                                                 |            | 8.59 Nm      | 900 W    | R88M-K90010C-BS2  | R88D-KN15F-□                | R88D-KT15F      |
|                                                                                                                                                                                                             |                |                                                                 | With brake | 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 |
|  | 230 V          | Incremental encoder (20 bit)<br>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)<br>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)

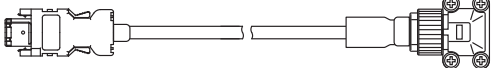
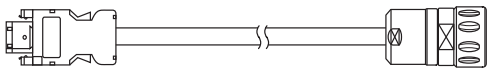
| Symbol                                                                              | Specifications |                                                    |               |              |          | Servo motor model | Compatible servo drives (2) |                 |
|-------------------------------------------------------------------------------------|----------------|----------------------------------------------------|---------------|--------------|----------|-------------------|-----------------------------|-----------------|
|                                                                                     | Voltage        | Encoder and design                                 |               | Rated torque | Capacity |                   | G5 EtherCAT/ML2             | G5 Analog/pulse |
|  | 400 V          | Incremental encoder (20 bit)<br>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)<br>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 <sup>(2)</sup> |                              |
|-----------------------------------------------------------------------------------|----------------|-------------------------------------------------|---------------|--------------|-------------------|----------------------------------------|------------------------------|
|                                                                                   | Voltage        | Encoder and design                              |               | Rated torque | Capacity          | G5 EtherCAT                            | G5 Analog/pulse              |
|  | 400 V          | Absolute encoder (17 bit)<br>Shaft end with key | Without brake | 47.8 Nm      | 7500 W            | R88M-KH7K515C-S1                       | R88D-KN75F-ECT<br>R88D-KT75F |
|                                                                                   |                |                                                 | With brake    | 47.8 Nm      | 7500 W            | R88M-KH7K515C-BS1                      | R88D-KN75F-ECT<br>R88D-KT75F |
|                                                                                   |                |                                                 |               |              |                   |                                        |                              |
|                                                                                   |                |                                                 |               |              |                   |                                        |                              |

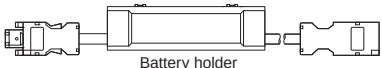
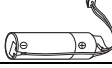
## Encoder cables

### For absolute and incremental encoders

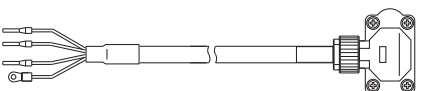
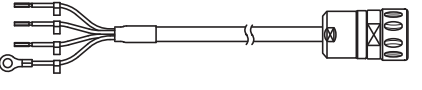
| Symbol                                                                            | Specifications                                                                                                                                                                                                                                                                    | Model                    | Appearance                                                                         |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------|
|  | Encoder cable for servomotors<br>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<br>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<br>R88M-K(1K0/1K5)30(H/T)□<br>R88M-K(750/1K0/1K5/2K0/3K0/4K0/5K0)30(F/C)□<br>R88M-K(400/600/1K0/1K5/2K0/3K0/4K0/5K0)20□<br>R88M-K(7K5/11K0/15K0)15□<br>R88M-K(900/2K0/3K0/4K5/6K0)10□<br>R88M-KH(1K0/1K5/2K0/3K0/4K0/5K0)20(F/C)□<br>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                                                                            |
|-------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|
|  | Absolute encoder battery cable  | Battery not included 0.3 m R88A-CRGD0R3C-E |  |
|                                                                                     |                                 | 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                                                                            |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------|
|  | For 200 V servomotors<br>R88M-K(050/100/200/400/750)30(H/T)-□□S2<br><b>Note:</b> 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            |                                                                                       |
|                                                                                     | For 200 V servomotors<br>R88M-KH(200/400/750)30(H/T)-□□S2                                                                                                                                               | 20 m R88A-CAKA020SR-E            |  |
|                                                                                     |                                                                                                                                                                                                         | 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<br>R88M-K(1K0/1K5)30(H/T)-□□S2<br>R88M-K(1K0/1K5)20(H/T)-□□S2<br>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<br>R88M-K(750/1K0/1K5/2K0)30(F/C)-□□S2<br>R88M-K(400/600/1K0/1K5/2K0)20(F/C)-□□S2<br>R88M-K90010(F/C)-□□S2<br>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-CAGB005SR-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<br>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<br>R88M-K(3K0/4K0/5K0)30(F/C)-□□S2<br>R88M-K(3K0/4K0/5K0)20(F/C)-□□S2<br>R88M-K(2K0/3K0)10(F/C)-□□S2<br>R88M-K4K510C-□□S2<br>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<br>R88M-K6K010C-□□S2<br>R88M-K7K515C-□□S2<br>R88M-KH7K515C-□S1<br><b>Note:</b> 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<br>R88M-K(11K0/15K0)15C-□□S2<br><b>Note:</b> 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.<br>For 200 V servo motors with brake<br>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.<br>For 400 V servo motors with brake<br>R88M-K6K010C-BS2<br>R88M-K(7K5/11K0/15K0)15C-BS2<br>R88M-KH7K515C-BS1 | 1.5 m R88A-CAGE001-5BR-E |            |
|        |                                                                                                                                 | 3 m R88A-CAGE003BR-E     |            |
|        |                                                                                                                                 | 5 m R88A-CAGE005BR-E     |            |
|        |                                                                                                                                 | 10 m R88A-CAGE010BR-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)□<br>R88M-K(750/1K0/1K5/2K0/3K0/4K0/5K0)30(F/C)□<br>R88M-K(400/600/1K0/1K5/2K0/3K0/4K0/5K0)20□<br>R88M-K(900/2K0/3K0)10□<br>R88M-K(4K5/6K0)10C-□<br>R88M-K(7K5/11K0/15K0)15C-□<br>R88M-KH(1K0/1K5/2K0/3K0/4K0/5K0/7K5)□ | R88A-CNK04R      |
|                                      | Motor side       | R88M-K(050/100/200/400/750)30(H/T)□                                                                                                                                                                                                           | R88A-CNK11A      |
| Connectors for making power cables   | Motor side       | R88M-KH(200/400/750)30(H/T)□                                                                                                                                                                                                                  | SPOC-06K-FSDN169 |
|                                      | Motor side       | R88M-K(1K0/1K5)30(H/T)-S2<br>R88M-K(1K0/1K5)20(H/T)-S2<br>R88M-K90010(H/T)-S2<br>R88M-K(750/1K0/1K5/2K0)30(F/C)-S2,<br>R88M-K(400/600/1K0/1K5/2K0)20(F/C)-S2<br>R88M-K90010(F/C)-S2<br>R88M-KH(1K0/1K5)20(F/C)-S1                             | MS3108E20-4S     |
|                                      | Motor side       | R88M-K(1K0/1K5)30(H/T)-BS2<br>R88M-K(1K0/1K5)20(H/T)-BS2<br>R88M-K90010(H/T)-BS2                                                                                                                                                              | MS3108E20-18S    |
|                                      | Motor side       | R88M-K(750/1K0/1K5/2K0/3K0/4K0/5K0)30(F/C)-BS2<br>R88M-K(400/600/1K0/1K5/2K0/3K0/4K0/5K0)20(F/C)-BS2<br>R88M-K(900/2K0/3K0)10(F/C)-BS2<br>R88M-K4K510C-BS2<br>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<br>R88M-K(3K0/4K0/5K0)20(F/C)-S2<br>R88M-K(2K0/3K0)10(F/C)-S2<br>R88M-K4K510C-S2<br>R88M-KH(2K0/3K0/4K0/5K0)20(F/C)-S1                                                                                          | MS3108E22-22S    |
|                                      | Motor side       | R88M-K6K010C-□<br>R88M-K(7K5/11K0/15K0)15C-□<br>R88M-KH7K515C-□S1                                                                                                                                                                             | MS3108E32-17S    |
|                                      | Motor side       | R88M-K(050/100/200/400/750)30(H/T)-BS2                                                                                                                                                                                                        | R88A-CNK11B      |
|                                      | Motor side       | R88M-K6K010C-BS2<br>R88M-K(7K5/11K0/15K0)15C-BS2<br>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.