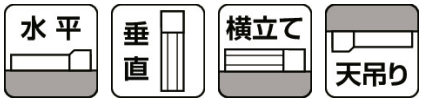
# RCP6-HSA6XR

Product Features


Installation position




Catalog PDF | Instruction manual PDF | 2D CAD drawings | Parametric CAD Drawings | Request information

(Note) The photo above shows the motor left-folded specification (ML).

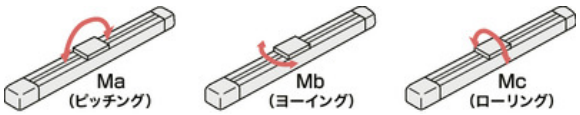
Dimensions | Selection considerations | Adaptive Controller

## Main Specifications

Specification 1 | Specification 2

| item | | | Contents | | | |
|---|---|---|---|---|---|---|
| Lead | | Ball screw lead (mm) | 20 | 12 | 6 | 3 |
| Horizontal | Payload capacity | Maximum payload (kg) (high output effective) | 15 | 28 | 42 | 42 |
| | | Maximum payload (kg) (high output disabled) | 8 | 14 | 20 | twenty five |
| | Speed/Acceleration | Maximum speed (mm/s) | 1120 | 800 | 400 | 200 |
| | | Minimum speed (mm/s) | twenty five | 15 | 8 | 4 |
| | | Rated acceleration/deceleration (G) | 0.3 | 0.1 | 0.1 | 0.3 |
| | | Maximum acceleration/deceleration (G) | 1 | 1 | 1 | 1 |
| vertical | Payload capacity | Maximum payload (kg) (high output effective) | 1 | 2.5 | 6 | 16 |
| | | Maximum payload (kg) (high output disabled) | 0.75 | 2 | 5 | 10 |
| | Speed/Acceleration | Maximum speed (mm/s) | 960 | 700 | 400 | 200 |
| | | Minimum speed (mm/s) | twenty five | 15 | 8 | 4 |
| | | Rated acceleration/deceleration (G) | 0.3 | 0.3 | 0.3 | 0.3 |
| | | Maximum acceleration/deceleration (G) | 0.5 | 0.5 | 0.5 | 0.5 |
| Pressing | | Maximum thrust when pressing (N) | 67 | 112 | 224 | 449 |
| | | Maximum pressing speed (mm/s) | 30 | 30 | 20 | 20 |
| brake | | Brake specifications | Non-excitation electromagnetic brake | | | |
| | | Brake holding force (kgf) | 1 | 2.5 | 6 | 16 |
| stroke | | Minimum stroke (mm) | 500 | 500 | 500 | 500 |
| | | Maximum stroke (mm) | 1500 | 1500 | 1400 | 1000 |
| | | Stroke pitch (mm) | 50 | 50 | 50 | 50 |

## Slider type moment direction



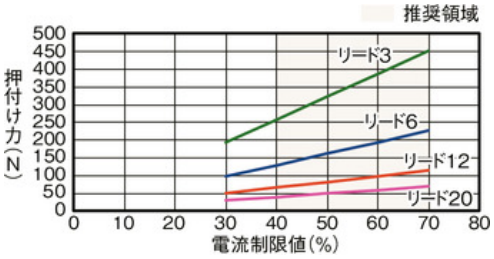

### Stroke and maximum speed

(Unit: mm/s)

| Lead (mm) | Connection Controller | 500 to 700 (in 50mm increments) | 750 (mm) | 800 (mm) | 850 (mm) | 900 (mm) | 950 (mm) | 1000 (mm) | 1050 (mm) | |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 | High output enabled | 1120 ＜960＞ | | | | 970＜960＞ | 940 | 860 | 790 | |
| | High output disabled | 800＜640＞ | | | | | | | 790＜640＞ | 730 |
| 12 | High output enabled | 800＜700＞ | 770＜700＞ | 680 | 620 | 560 | 510 | 460 | 425 | |
| | High output disabled | 560 | | | | | 510 | 460 | 425 | |
| 6 | High output enabled | 400 | 380 | 340 | 310 | 280 | 255 | 230 | 210 | |
| | High output disabled | 340＜280＞ | | | 310＜280＞ | 280 | 255 | 230 | 210 | |
| 3 | High output enabled | 200 | 190 | 165 | 145 | 135 | 125 | 115 | | |
| | High output disabled | 140 | | | | 135 | 125 | 115 | | |

(Note) ＜＞ indicates vertical use. Blank indicates non-operational.

### Correlation diagram between pressing force and current limit value




Payload capacity by speed and acceleration *High output setting is enabled at the time of shipment. For details, see page 1-23 .

High output setting enabled (power mode) The maximum speed varies depending on the payload. The payload is in kg. Blank spaces indicate that the operation is not possible.

Lead 20 | Lead 12 | Lead 6 | Lead 3

| posture | Horizontal | | | | | vertical | | |
|---|---|---|---|---|---|---|---|---|
| speed | Acceleration (G) | | | | | | | |
| (mm/s) | 0.1 | 0.3 | 0.5 | 0.7 | 1 | 0.1 | 0.3 | 0.5 |
| 0 | 15 | 15 | 10 | 8 | 7 | 1 | 1 | 1 |
| 160 | 15 | 15 | 10 | 8 | 7 | 1 | 1 | 1 |
| 320 | 12 | 12 | 10 | 8 | 6 | 1 | 1 | 1 |
| 480 | 12 | 12 | 9 | 8 | 6 | 1 | 1 | 1 |
| 640 | 12 | 12 | 6.5 | 5 | 4 | 1 | 1 | 1 |
| 800 | 9.5 | 9.5 | 5 | 3 | 2 | 1 | 1 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 960 | | 7 | 3 | 2 | 1 | | 0.5 | 0.5 |
| 1120 | | 5 | 1 | | | | | |

High output setting disabled (energy saving mode) The maximum speed varies depending on the payload. The payload is in kg. Blank spaces indicate that the operation is not possible.

Lead 20 | Lead 12 | Lead 6 | Lead 3

| posture | Horizontal | | vertical |
|---|---|---|---|
| speed | Acceleration (G) | | |
| (mm/s) | 0.3 | 0.7 | 0.3 |
| 0 | 8 | 5 | 0.75 |
| 160 | 8 | 5 | 0.75 |
| 320 | 8 | 5 | 0.75 |
| 480 | 8 | 4 | 0.75 |
| 640 | 6 | 3 | 0.75 |
| 800 | 3 | 0.5 | |

## Adaptive Controller

The actuators on this page can be operated with the following controllers. Please select the type that suits your application.

| name | exterior | Maximum number of connectable axes | Power supply voltage | Positioner | Pulse train | program |
|---|---|---|---|---|---|---|
| MSEL-PC/PG |  | 4 | Single phase AC 100-230V | - | - | ● |
| PCON-CB/CGB |  | 1 | DC24V | ● ※Select | ● ※Select | - |
| PCON-CYB/PLB/POB |  | 1 | | ● ※Select | ● ※Select | - |
| RCON |  | 16 (ML3, SSN, ECM are 8) | | - | - | - |
| RSEL |  | 8 | | - | - | ● |

(Note) For network abbreviations such as DV and CC, please see page 8-15 .

## International Standards

## Selection considerations

| | |
|---|---|
| 選定上の注意 | (1) As the stroke becomes longer, the maximum speed decreases due to the critical speed of the ball screw. Check the maximum speed for the desire<br>(2) The maximum load capacity is shown in "Main specifications". For details, refer to "Load capacity by speed and acceleration table".<br>(3) When performing a pressing operation, refer to "Correlation diagram of pressing force and current limit value". The pressing force is a guideline va<br>. (4) The duty ratio must be limited depending on the ambient temperature during use. For details, refer to page 1-326<br>. (5) Caution is required depending on the mounting position. For details, refer to page 1-307<br>. (6) The guideline for the overhang load length is 300 mm or less in the Ma, Mb, and Mc directions. For details on the overhang load length, refer to th |

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## Dimensions

CAD図面がホームページよりダウンロード出来ます。
www.iai-robot.co.jp
2次元 CAD
3次元 CAD

ST: Stroke

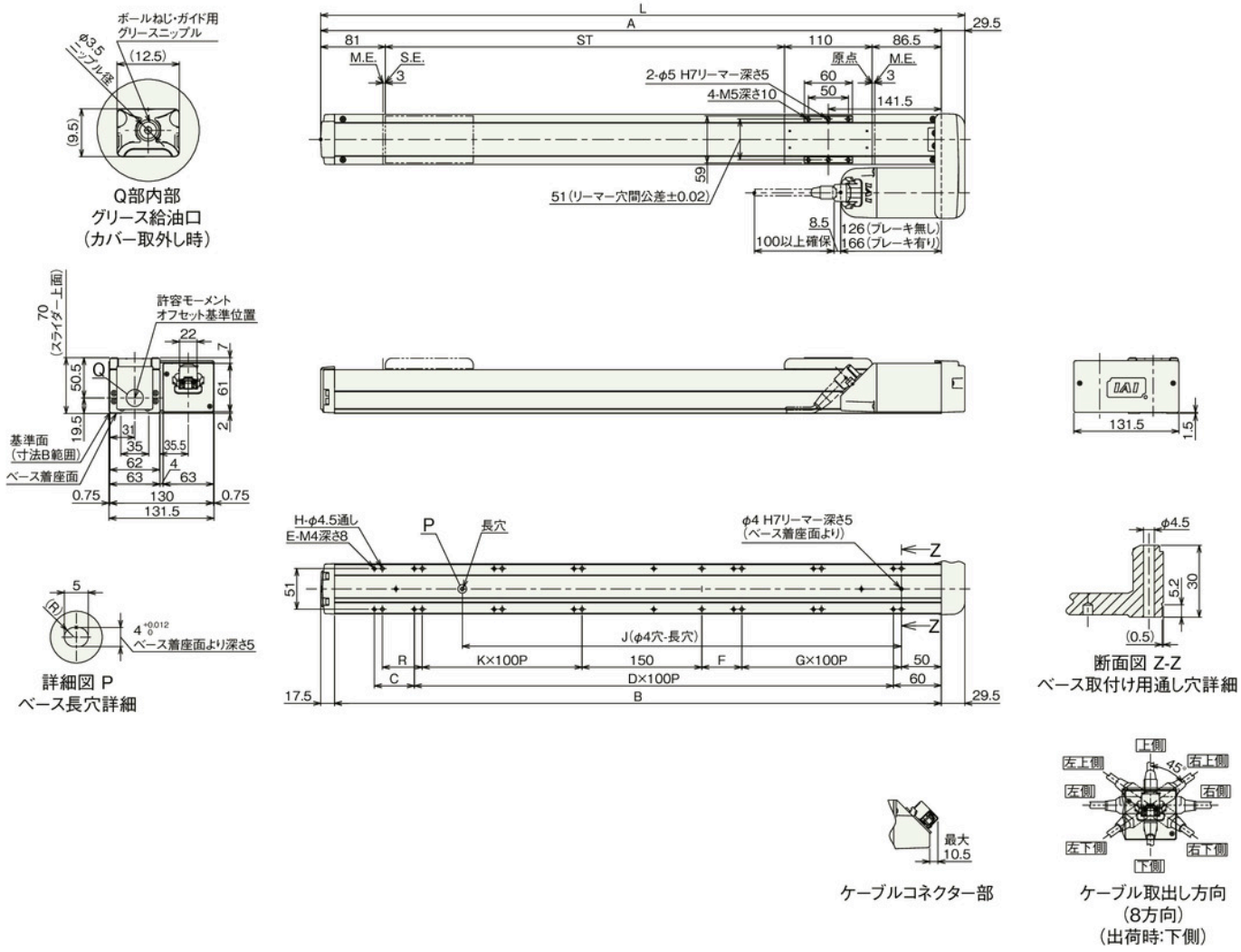
ME: Mechanical end

SE: Stroke end

(Note) When performing origin return, the slider will move to the ME, so please be careful not to interfere with the surroundings.

(Note) The diagram below shows the motor left-side reverse specification (ML).

(Note) For details on precautions for changing the cable exit direction, refer to page 3-716 .




## Stroke dimensions

| stroke | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L | 807 | 857 | 907 | 957 | 1007 | 1057 | 1107 | 1157 | 1207 | 1257 | 1307 | 1357 | 1407 | 1457 | 1507 | 1557 | 1 |
| A | 777.5 | 827.5 | 877.5 | 927.5 | 977.5 | 1027.5 | 1077.5 | 1127.5 | 1177.5 | 1227.5 | 1277.5 | 1327.5 | 1377.5 | 1427.5 | 1477.5 | 1527.5 | 15 |
| B | 760 | 810 | 860 | 910 | 960 | 1010 | 1060 | 1110 | 1160 | 1210 | 1260 | 1310 | 1360 | 1410 | 1460 | 1510 | 1 |
| C | 50 | 0 | 50 | 0 | 50 | 0 | 50 | 0 | 50 | 0 | 50 | 0 | 50 | 0 | 50 | 0 | |
| D | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | 12 | 13 | 13 | 14 | |
| E | 16 | 16 | 18 | 18 | 20 | 20 | twenty two | twenty two | twenty four | twenty four | 26 | 26 | 28 | 28 | 30 | 30 | |
| F | 50 | 0 | 0 | 50 | 50 | 0 | 0 | 50 | 50 | 0 | 0 | 50 | 50 | 0 | 0 | 50 | |
| G | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | |
| H | 16 | 16 | 16 | 18 | 20 | 20 | 20 | twenty two | twenty four | twenty four | twenty four | 26 | 28 | 28 | 28 | 30 | |
| J | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | 1300 | 1 |
| K | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | |
| R | 50 | 50 | 0 | 0 | 50 | 50 | 0 | 0 | 50 | 50 | 0 | 0 | 50 | 50 | 0 | 0 | |

## Mass by stroke

| stroke | | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | 1300 | 1350 | 1400 | 1450 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mass (kg) | No brakes | 5.0 | 5.3 | 5.5 | 5.7 | 5.9 | 6.1 | 6.3 | 6.5 | 6.7 | 7.0 | 7.2 | 7.4 | 7.6 | 7.8 | 8.0 | 8.2 | 8.4 | 8.6 | 8.9 | 9.1 | 9.3 |
| | With brake | 5.3 | 5.6 | 5.8 | 6.0 | 6.2 | 6.4 | 6.6 | 6.8 | 7.0 | 7.3 | 7.5 | 7.7 | 7.9 | 8.1 | 8.3 | 8.5 | 8.7 | 8.9 | 9.2 | 9.4 | 9.6 |