

# C10

Origin on the non-motor side is selectable: Lead 20 • 10



## Ordering method

|            |              |                                |   |   |                             |   |  |   |   |                |
|------------|--------------|--------------------------------|---|---|-----------------------------|---|--|---|---|----------------|
| <b>C10</b> | <b>Model</b> | <b>Lead</b>                    | <b>Brake</b>                              | <b>Option</b>   | <b>Stroke</b>               | <b>Cable length</b> <sup>Note 2</sup>                           | <b>TSX</b>   | <b>SR1-X</b>  | <b>RDV-X</b>  | <b>Battery</b> |
|            |              | 20: 20mm<br>10: 10mm<br>5: 5mm | No entry: With no brake<br>BK: With brake | Origin position change<br>None: Standard<br>Z: Non-motor side <sup>Note 1</sup> | 150 to 1050<br>(50mm pitch) | 3L: 3.5m<br>5L: 5m<br>10L: 10m<br>3K/5K/10K<br>(Flexible cable) | <b>Positioner</b> <sup>Note 3</sup><br>TS-X<br>Driver: Power-supply voltage / Power capacity<br>105: 100V/100W or less<br>205: 200V/100W or less<br>Regenerative unit<br>No entry: None<br>R: With RGT<br>LCD monitor<br>No entry: None<br>L: With LCD<br><b>I/O selection</b><br>NP: NPN<br>PN: PNP<br>CC: CC-Link<br>DN: DeviceNet™<br>EP: EtherNet/IP™<br>PT: PROFINET<br>GW: No I/O board <sup>Note 4</sup><br><b>Battery</b><br>B: With battery (Absolute)<br>N: None (Incremental) | <b>Controller</b><br>05<br>Driver: Power capacity<br>05: 100W or less<br>Usable for CE<br>No entry: Standard<br>E: CE marking<br>Regenerative unit<br>No entry: None<br>R: With RGT<br><b>I/O selection</b><br>N: NPN<br>P: PNP<br>CC: CC-Link<br>DN: DeviceNet™<br>PB: PROFIBUS<br><b>Battery</b><br>B: With battery (Absolute)<br>N: None (Incremental) | <b>Driver</b><br>2<br>Power-supply voltage<br>2: AC200V<br>05<br>Driver: Power capacity<br>05: 100W or less<br><b>RBR1</b><br>Regenerative unit |                |

- Note 1. If selecting 5mm lead specifications then the origin point cannot be changed to the non-motor side.  
 Note 2. The robot cable is standard cable (3L/5L/10L), but can be changed to flexible cable. See P.614 for details on robot cable.  
 Note 3. See P.522 for DIN rail mounting bracket.  
 Note 4. Select this selection when using the gateway function. For details, see P.66.

## Basic specifications

|  |  |
|--|--|
| AC servo motor output (W)                            | 100  |
| Repeatability <sup>Note 1</sup> (mm)                 | +/-0.01                                      |
| Deceleration mechanism                               | Ball screw φ15                               |
| Ball screw lead (mm)                                 | 20 10 5                                      |
| Maximum speed (mm/sec)                               | 1000 500 250                                 |
| Maximum payload (kg)                                 | Horizontal 20 40 60<br>Vertical 4 10 20      |
| Rated thrust (N)                                     | 84 169 339                                   |
| Stroke (mm)  | 150 to 1050 (50mm pitch)                     |
| Overall length (mm)                                  | Horizontal Stroke+283<br>Vertical Stroke+313 |
| Maximum outside dimension of body cross-section (mm) | W104 x H85                                   |
| Cable length (m)                                     | Standard: 3.5 / Option: 5, 10                |
| Degree of cleanliness                                | CLASS 10 <sup>Note 3</sup>                   |
| Intake air (Nl/min)                                  | 30 to 90 <sup>Note 4</sup>                   |

- Note 1. Positioning repeatability in one direction.  
 Note 2. When the stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table below.  
 Note 3. Per 1cf (0.1um base), when suction blower is used.  
 Note 4. The necessary intake amount varies depending on the use conditions and environment.

## Allowable overhang

| Installation | Lead    | Horizontal installation (Unit: mm) |      |     | Wall installation (Unit: mm) |      |     | Vertical installation (Unit: mm) |      |
|--------------|---------|------------------------------------|------|-----|------------------------------|------|-----|----------------------------------|------|
|              |         | A                                  | B    | C   | A                            | B    | C   | A                                | C    |
| Horizontal   | Lead 20 | 5kg                                | 1875 | 530 | 510                          | 5kg  | 496 | 451                              | 1826 |
|              |         | 10kg                               | 1079 | 247 | 242                          | 10kg | 218 | 168                              | 1002 |
|              |         | 20kg                               | 628  | 106 | 107                          | 20kg | 78  | 27                               | 497  |
|              | Lead 10 | 15kg                               | 765  | 156 | 164                          | 10kg | 230 | 170                              | 1036 |
|              |         | 30kg                               | 425  | 62  | 66                           | 20kg | 80  | 29                               | 506  |
| Wall         | Lead 10 | 40kg                               | 350  | 38  | 42                           | 30kg | 30  | 0                                | 311  |
|              | Lead 5  | 30kg                               | 960  | 63  | 68                           | 10kg | 234 | 170                              | 2716 |
|              |         | 50kg                               | 565  | 25  | 28                           | 20kg | 82  | 29                               | 1206 |
|              |         | 60kg                               | 470  | 16  | 17                           | 30kg | 31  | 0                                | 711  |
|              | Lead 5  | 30kg                               | 960  | 63  | 68                           | 20kg | 82  | 29                               | 1206 |

Note. Distance from center of slider top to center of gravity of object being carried at a guide service life of 10,000 km.

## Static loading moment

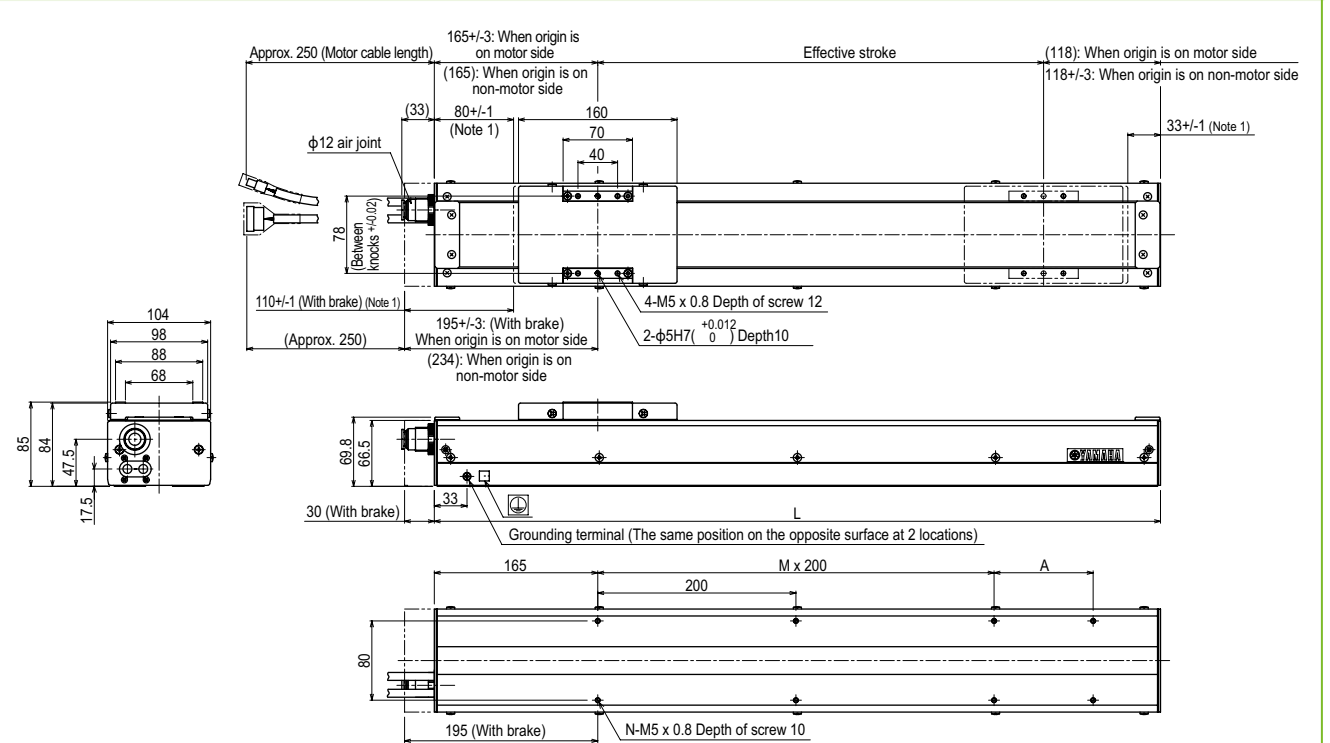
| (Unit: N·m) |     |     |
|-------------|-----|-----|
| MY          | MP  | MR  |
| 119         | 119 | 105 |

## Controller

| Controller              | Operation method   |
|-------------------------|--|
| SR1-X05 <sup>Note</sup> | Programming / I/O point trace / Remote command / Operation using RS-232C communication |
| RCX320                  |  |
| RCX221/222              |  |
| RCX340                  |  |
| TS-X105 <sup>Note</sup> | I/O point trace / Remote command   |
| TS-X205 <sup>Note</sup> |  |
| RDV-X205-RBR1           | Pulse train control  |

Note. Regenerative unit is required when the models used vertically and with 700mm or larger stroke.

## C10



| Effective stroke                         | 150                         | 200  | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650  | 700  | 750  | 800  | 850  | 900  | 950  | 1000 | 1050 |  |
|--|-----------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|--|
| L  | 433                         | 483  | 533 | 583 | 633 | 683 | 733 | 783 | 833 | 883 | 933  | 983  | 1033 | 1083 | 1133 | 1183 | 1233 | 1283 | 1333 |  |
| A  | 200                         | 50   | 100 | 150 | 200 | 50  | 100 | 150 | 200 | 50  | 100  | 150  | 200  | 50   | 100  | 150  | 200  | 50   | 100  |  |
| M  | 0                           | 1    | 1   | 1   | 1   | 2   | 2   | 2   | 2   | 3   | 3    | 3    | 3    | 4    | 4    | 4    | 4    | 5    | 5    |  |
| N  | 4                           | 6    | 6   | 6   | 6   | 8   | 8   | 8   | 8   | 10  | 10   | 10   | 10   | 12   | 12   | 12   | 12   | 14   | 14   |  |
| Weight (kg) <sup>Note 3</sup>            | 4.4                         | 5.0  | 5.5 | 6.1 | 6.7 | 7.3 | 7.8 | 8.4 | 9.0 | 9.6 | 10.1 | 10.7 | 11.3 | 11.9 | 12.4 | 13.0 | 13.6 | 14.2 | 14.7 |  |
| Maximum speed (mm/sec) <sup>Note 4</sup> | Lead 20                     | 1000 |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |  |
|  | Lead 10                     | 500  |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |  |
|  | Lead 5                      | 250  |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |  |
| Speed setting                            | 95% 95% 75% 75% 60% 60% 50% |      |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |  |

Note 1. Stop positions are determined by the mechanical stoppers at both ends.  
 Note 2. Minimum bend radius of motor cable is R50.  
 Note 3. Weight of models with no brake. The weight of brake-attached models is 0.4 kg heavier than the models with no brake shown in the table.  
 Note 4. When the stroke is longer than 750mm, resonance of the ball screw may occur depending on the operation conditions (critical speed). In this case, reduce the speed setting on the program by referring to the maximum speeds shown in the table at the left.