RCP6(S)-RRA6C

**Model Specification Items**

- **Series**
  - RCP6: Separate Controller
  - RCP6S: Built-in Controller

- **Type**
  - WA: Battery-less Absolute
  - 42P: Stepper Motor

- **Encoder Type**
  - 42P: Stepper Motor

- **Motor Type**
  - 42P: Stepper Motor

- **Lead**
  - 20 High-output
  - 12 High-output
  - 6 High-output
  - 3 High-output

- **Stroke**
  - 20mm
  - 12mm
  - 6mm
  - 3mm

- **Applicable Controller/IO Type**
  - (RCP6)
  - (RCP6S)

- **Cable Length**
  - N: None
  - P: 1m
  - S: 3m
  - M: 5m

- **Options**
  - CE: SIO Type
  - M: Sensor Type
  - S: PCON/MSEL connected
  - P: Coupled

- **Motor Unit Type**
  - 24v Stepper Motor

- **Body size**
  - 58 mm

- **Operating Temp. & Humidity**
  - 0~40°C, 85% RH or less (Non-condensing)

- **Ambient Temperature & Humidity**
  - 0~40°C, 85% RH or less (Non-condensing)

- **Lost Motion**
  - 0.1mm or less

- **Drive System**
  - Ball screw 410mm, rolled C10

- **Motor Non-rotation Precision**
  - 0 deg.

- **Rod Non-rotation Precision**
  - 0 deg.

- **Allowable Load and Torque on Rod Tip**
  - See P. 127

- **Rod Tip Overhang Distance**
  - 100mm

- **Rod Tip Overhang**
  - 100mm

- **Ambient Operating Temp. & Humidity**
  - 0~40°C, 85% RH or less (Non-condensing)

- **Options**
  - (Note 1) The payload assumes that there is an external guide.
  - (Note 2) The actuator specification displays the payload's maximum value, but it will vary depending on the acceleration and speed.
  - (Note 3) The radial cylinder is equipped with a built-in guide. Please refer to the graphs shown in P.127 and after for the allowable load mass.
  - (Note 4) When performing push-motion operation, please confirm the push force of each model by checking the "Correlation Diagram of Push Force and Current Limit" on P.113.
  - (Note 5) Please refer to the "Selection Guidelines" (RCP6 Tables of Payload by Speed/Acceleration) on P.115 for more details.

- **Controller/I/O Type**
  - P3: PCON
  - M3: MCON
  - MSEL

- **Motor Type**
  - Stepper

- **Encoder Type**
  - 42P

- **Motor Type**
  - 42P

- **Cable Exit Direction**
  - Left (CJL)
  - Right (CJR)
  - Top (CJT)
  - Bottom (CJB)

- **Tip Adapter**
  - (Keyway) (KFA)

- **Reference Page**
  - See P.105
  - See P. 106

- **Options**
  - B: Brake
  - CJT: Cable Exit Direction (Type)
  - CJR: Cable Exit Direction (Right)
  - CJB: Cable Exit Direction (Bottom)
  - FL: Flange
  - FTA: Tip Adapter (Flange)
  - NFA: Tip Adapter (Internal Threads)
  - KFA: Tip Adapter (Keyway)

- **RCP6(S)-RRA6C**
  - Vertical Mount
  - (Model Number)
  - (RCP6(S)-RRA6C-WA-42P-3-)
  - (RCP6(S)-RRA6C-WA-42P-6-)
  - (RCP6(S)-RRA6C-WA-42P-12-)

- **Correlation Diagrams of Speed and Payload**
  - (Unit: mm/s)
  - (Unit: kg)

- **Actuator Specifications**
  - **Model Number**
    - RCP6(S)-RRA6C-WA-42P-20
    - RCP6(S)-RRA6C-WA-42P-12
    - RCP6(S)-RRA6C-WA-42P-6

- **Max. Payload Stroke**
  - 65~365
  - 65~415

- **Cable Exit Direction**
  - (RCP6(S)-RRA6C-WA-42P-3-)
  - (RCP6(S)-RRA6C-WA-42P-6-)
  - (RCP6(S)-RRA6C-WA-42P-12-)

- **Controller/I/O Type**
  - P3: PCON
  - M3: MCON
  - MSEL

- **Motor Type**
  - 24v Stepper Motor

- **Body size**
  - 58 mm

- **Operating Temp. & Humidity**
  - 0~40°C, 85% RH or less (Non-condensing)

- **Ambient Temperature & Humidity**
  - 0~40°C, 85% RH or less (Non-condensing)

- **Lost Motion**
  - 0.1mm or less

- **Drive System**
  - Ball screw 410mm, rolled C10

- **Motor Non-rotation Precision**
  - 0 deg.

- **Allowable Load and Torque on Rod Tip**
  - See P. 127

- **Rod Tip Overhang Distance**
  - 100mm
This model is network-compatible only.

**Dimensions and Mass by Stroke**

<table>
<thead>
<tr>
<th>Stroke (mm)</th>
<th>L 125</th>
<th>175</th>
<th>225</th>
<th>275</th>
<th>325</th>
<th>375</th>
<th>425</th>
<th>475</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/o brake</td>
<td>0.321</td>
<td>0.375</td>
<td>0.428</td>
<td>0.462</td>
<td>0.502</td>
<td>0.539</td>
<td>0.576</td>
<td>0.607</td>
</tr>
<tr>
<td>w/ brake</td>
<td>0.293</td>
<td>0.339</td>
<td>0.386</td>
<td>0.427</td>
<td>0.463</td>
<td>0.498</td>
<td>0.533</td>
<td>0.567</td>
</tr>
<tr>
<td>w/ brake</td>
<td>0.264</td>
<td>0.315</td>
<td>0.361</td>
<td>0.398</td>
<td>0.436</td>
<td>0.469</td>
<td>0.502</td>
<td>0.534</td>
</tr>
</tbody>
</table>

**Mass (kg)**

- w/o brake: 0.21 0.25 0.29 0.32 0.35 0.39 0.42 0.45
- w/ brake: 0.19 0.23 0.26 0.28 0.31 0.34 0.36 0.39

**Rod Deflection of RCP6(S)-RRA6C (Reference Values)**

- Load on rod tip (kg)
  - 0.5: 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5
- Load on rod tip (N)
  - 0.5: 5.8 9.7 13.6 17.5 21.4 25.3 29.2 33.1

**Applicable Controllers**

- PCON-C/G: DC24V, 4 holes and 4 hole, 2-M3 depth 6 (For ground line)
- MCON-C/G: 100~230VAC, -
- MSEL-PC/P: Single-phase, 100~230VAC

*Please select "high-output specification" as an option for the MCON. With the MCON, operation is possible only when the high-output specification is selected.