**SJ-V Series Spindle Motors**

**SJ-V Spindle Motor 200V (Normal Specifications)**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SJ-V2.2-01T</th>
<th>SJ-V2.2-02ZT (**)</th>
<th>SJ-V3.7-02ZT</th>
<th>SJ-V7.5-03ZT</th>
<th>SJ-V11-08ZT</th>
<th>SJ-V11-13ZT</th>
<th>SJ-V15-01ZT</th>
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<tr>
<td>Stocked Item</td>
<td>-</td>
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</tr>
<tr>
<td>Compatible Drive Unit</td>
<td>1-Axis Type MDS-E-SP-</td>
<td>2-Axis Type MDS-E-SP-</td>
<td>Multi Axis Integrated Type MDS-EM-SPV3-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Weight (kg)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Shaft Diameter (mm)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>Flange Fitting Diameter (mm)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Degree of Protection (The Shaft-Through Portion is Excluded)</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
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<tr>
<td>External Dimensions (Flange Type) mm</td>
<td>174 SQ x 300</td>
<td>174 SQ x 300</td>
<td>174 SQ x 300</td>
<td>204 SQ x 440</td>
<td>204 SQ x 490</td>
<td>204 SQ x 490</td>
<td>250 SQ x 469.5</td>
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<tr>
<td>Flange Fitting Diameter (mm)</td>
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<td>ø150</td>
<td>ø150</td>
<td>ø150</td>
<td>ø150</td>
<td>ø150</td>
<td>ø150</td>
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<tr>
<td>Shaft Diameter (mm)</td>
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<td>ø23</td>
<td>ø23</td>
<td>ø23</td>
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</tr>
</tbody>
</table>

Notes:
1. Only the combination designated in this manual can be used for the motor and drive unit. Always use the designated combination.
2. Actual acceleration/deceleration output is 1.2-fold of “Standard output during acceleration/deceleration” or “Short time rated output”.

---

**SJ-V Spindle Motor 200V (Normal Specifications)**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SJ-V15-09ZT</th>
<th>SJ-V18.5-01ZT</th>
<th>SJ-V18.5-04ZT</th>
<th>SJ-V22-01ZT</th>
<th>SJ-V22-04ZT</th>
<th>SJ-V22-06ZT</th>
<th>SJ-V28-01ZT</th>
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<tbody>
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</tr>
<tr>
<td>Compatible Drive Unit</td>
<td>1-Axis Type MDS-E-SP-</td>
<td>2-Axis Type MDS-E-SP-</td>
<td>Multi Axis Integrated Type MDS-EM-SPV3-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Shaft Diameter (mm)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Flange Fitting Diameter (mm)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>25</td>
<td>30</td>
<td>40</td>
<td>200xx</td>
<td>200xx</td>
<td>200xx</td>
<td>200xx</td>
</tr>
</tbody>
</table>

Notes:
1. Only the combination designated in this manual can be used for the motor and drive unit. Always use the designated combination.
2. Actual acceleration/deceleration output is 1.2-fold of “Standard output during acceleration/deceleration” or “Short time rated output”.
### SJ-V Spindle Motor 200V (Normal Specifications)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SJ-V37-01ZT</th>
<th>SJ-V45-01ZT</th>
<th>SJ-V55-01ZT</th>
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<td>Stocked Item</td>
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<tr>
<td>Compatible Drive Unit</td>
<td>1-Axis Type MDS-E-SP-</td>
<td>400</td>
<td>640</td>
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<tr>
<td></td>
<td>2-Axis Type MDS-E-SP2-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Multi Axial Integrated Type MDS-EM-SPV3-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Standard Output During Acceleration/Deceleration (kW)</td>
<td>37</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>Actual Accel/Decel Output (kW) (*2)</td>
<td>44.4</td>
<td>54</td>
<td>66</td>
</tr>
<tr>
<td>Base Rotation Speed (r/min)</td>
<td>1150</td>
<td>1500</td>
<td>1150</td>
</tr>
<tr>
<td>Max. Rotation Speed in Constant Output Range (r/min)</td>
<td>3450</td>
<td>4500</td>
<td>3450</td>
</tr>
<tr>
<td>Maximum Rotation Speed (r/min)</td>
<td>6000</td>
<td>6000</td>
<td>4500</td>
</tr>
<tr>
<td>Continuous Rated Torque (N·m)</td>
<td>249</td>
<td>236</td>
<td>374</td>
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<tr>
<td>Motor Inertia (kg·m²)</td>
<td>0.34</td>
<td>0.34</td>
<td>0.8475</td>
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<tr>
<td>Degree of Protection (The Shaft-Through Portion is Excluded)</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
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<tr>
<td>External Dimensions (Flange Type) mm</td>
<td>320 SQ x 700</td>
<td>320 SQ x 700</td>
<td>480 SQ x 724</td>
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<td>Flange Fitting Diameter (mm)</td>
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<td>ø300</td>
<td>ø450</td>
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<tr>
<td>Shaft Diameter (mm)</td>
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</tr>
<tr>
<td>Weight (kg)</td>
<td>300</td>
<td>300</td>
<td>460</td>
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**Notes:**
1. Only the combination designated in this manual can be used for the motor and drive unit. Always use the designated combination.
2. Actual acceleration/deceleration output is 1.2-fold of “Standard output during acceleration/deceleration” or “Short time rated output”.

### SJ-V Spindle Motor 200V (Wide Range Constant Output Specifications)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SJ-V11-01T</th>
<th>SJ-V11-09T</th>
<th>SJ-V15-03T</th>
<th>SJ-V18.5-03T</th>
<th>SJ-V22-05T</th>
<th>SJ-V22-09T</th>
<th>SJ-VK22-19ZT</th>
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</thead>
<tbody>
<tr>
<td>Stocked Item</td>
<td>S</td>
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<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Compatible Drive Unit</td>
<td>1-Axis Type MDS-E-SP-</td>
<td>160</td>
<td>160</td>
<td>200</td>
<td>240</td>
<td>320</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>2-Axis Type MDS-E-SP2-</td>
<td>16080(L)</td>
<td>16080(L)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Multi Axial Integrated Type MDS-EM-SPV3-</td>
<td>16080</td>
<td>16080</td>
<td>200xx</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Standard Output During Acceleration/Deceleration (kW)</td>
<td>5.5</td>
<td>7.5</td>
<td>9</td>
<td>11</td>
<td>15</td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td>Actual Accel/Decel Output (kW) (*2)</td>
<td>6.6</td>
<td>9</td>
<td>10.3</td>
<td>13.2</td>
<td>18</td>
<td>22.2</td>
<td>22.2</td>
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<tr>
<td>Base Rotation Speed (r/min)</td>
<td>750</td>
<td>750</td>
<td>750</td>
<td>750</td>
<td>750</td>
<td>500</td>
<td>330</td>
</tr>
<tr>
<td>Max. Rotation Speed in Constant Output Range (r/min)</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>3500</td>
<td>750</td>
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<tr>
<td>Maximum Rotation Speed (r/min)</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>4500</td>
<td>750</td>
</tr>
<tr>
<td>Continuous Rated Torque (N·m)</td>
<td>45</td>
<td>70</td>
<td>95.5</td>
<td>115</td>
<td>140</td>
<td>239</td>
<td>310</td>
</tr>
<tr>
<td>Motor Inertia (kg·m²)</td>
<td>0.03</td>
<td>0.075</td>
<td>0.075</td>
<td>0.08</td>
<td>0.08</td>
<td>0.31</td>
<td>0.34</td>
</tr>
<tr>
<td>Degree of Protection (The Shaft-Through Portion is Excluded)</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
</tr>
<tr>
<td>External Dimensions (Flange Type) mm</td>
<td>204SQ x 490</td>
<td>250SQ x 469.5</td>
<td>250SQ x 469.5</td>
<td>250SQ x 539.5</td>
<td>250SQ x 539.5</td>
<td>320SQ x 631</td>
<td>320SQ x 700</td>
</tr>
<tr>
<td>Flange Fitting Diameter (mm)</td>
<td>ø180</td>
<td>ø230</td>
<td>ø230</td>
<td>ø230</td>
<td>ø300</td>
<td>ø300</td>
<td>ø300</td>
</tr>
<tr>
<td>Shaft Diameter (mm)</td>
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<td>ø48</td>
<td>ø48</td>
<td>ø55</td>
<td>ø55</td>
<td>ø60</td>
<td>ø60</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>70</td>
<td>110</td>
<td>110</td>
<td>135</td>
<td>135</td>
<td>280</td>
<td>300</td>
</tr>
</tbody>
</table>

**Notes:**
1. Only the combination designated in this manual can be used for the motor and drive unit. Always use the designated combination.
2. Actual acceleration/deceleration output is 1.2-fold of “Standard output during acceleration/deceleration” or “Short time rated output”.

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*Selection Guide Edition 18 • Revised January 1, 2018*
### SJ-V Spindle Motor 200V (Hollow Shaft Specifications)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SJ-VS7.5-14FZT</th>
<th>SJ-VKS26-09FZT</th>
<th>SJ-VKS30-16FZT</th>
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<td>Stocked Item</td>
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<tr>
<td>Compatible Drive Unit</td>
<td>1-Axis Type MDS-E-SP-</td>
<td>160</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td>2-Axis Type MDS-E-SP2-</td>
<td>16080(L)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Multi Axis Integrated Type MDS-EM-SPV3-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Standard Output During Acceleration/Deceleration (kW)</td>
<td>7.5</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Actual Accel/Decel Output (kW) (*2)</td>
<td>9</td>
<td>18</td>
<td>26.4</td>
</tr>
<tr>
<td>Base Rotation Speed (r/min)</td>
<td>1500</td>
<td>1500</td>
<td>4000</td>
</tr>
<tr>
<td>Max. Rotation Speed in Constant Output Range (r/min)</td>
<td>10000</td>
<td>4000</td>
<td>15000</td>
</tr>
<tr>
<td>Maximum Rotation Speed (r/min)</td>
<td>15000</td>
<td>4000</td>
<td>15000</td>
</tr>
<tr>
<td>Continuous Rated Torque (N·m)</td>
<td>35</td>
<td>47.7</td>
<td>17.9</td>
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<tr>
<td>Motor Inertia (kg·m²)</td>
<td>0.0248</td>
<td>0.03</td>
<td>0.0575</td>
</tr>
<tr>
<td>Degree of Protection (The Shaft-Through Portion is Excluded)</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
</tr>
<tr>
<td>External Dimensions (Flange Type) mm</td>
<td>208 SQ x 459.5</td>
<td>208 SQ x 509.5</td>
<td>250 SQ x 565</td>
</tr>
<tr>
<td>Flange Fitting Diameter (mm)</td>
<td>ø180</td>
<td>ø180</td>
<td>ø320</td>
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<tr>
<td>Shaft Diameter (mm)</td>
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<td>ø38</td>
<td>ø48</td>
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<tr>
<td>Weight (kg)</td>
<td>60</td>
<td>75</td>
<td>130</td>
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</table>

**Notes:**
1. Only the combination designated in this manual can be used for the motor and drive unit. Always use the designated combination.
2. Actual acceleration/deceleration output is 1.2-fold of “Standard output during acceleration/deceleration” or “Short time rated output”.

### SJ-V Spindle Motor 200V (Low-inertia Specifications)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>SJ-VL11-02FZT</th>
<th>SJ-VL11-05FZT-S01 (*1)</th>
<th>SJ-VL18.5-05FZT</th>
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<td>Stocked Item</td>
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<tr>
<td>Compatible Drive Unit</td>
<td>1-Axis Type MDS-E-SP-</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>2-Axis Type MDS-E-SP2-</td>
<td>16080(L)</td>
<td>16080(L)</td>
</tr>
<tr>
<td></td>
<td>Multi Axis Integrated Type MDS-EM-SPV3-</td>
<td>16080</td>
<td>16080 (*2)</td>
</tr>
<tr>
<td>Standard Output During Acceleration/Deceleration (kW)</td>
<td>11</td>
<td>11</td>
<td>18.5</td>
</tr>
<tr>
<td>Actual Accel/Decel Output (kW) (*2)</td>
<td>13.2</td>
<td>13.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Base Rotation Speed (r/min)</td>
<td>1500</td>
<td>5000</td>
<td>3000</td>
</tr>
<tr>
<td>Max. Rotation Speed in Constant Output Range (r/min)</td>
<td>15000</td>
<td>20000</td>
<td>15000</td>
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<tr>
<td>Maximum Rotation Speed (r/min)</td>
<td>15000</td>
<td>20000</td>
<td>15000</td>
</tr>
<tr>
<td>Continuous Rated Torque (N·m)</td>
<td>14.5</td>
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<td>7.0</td>
</tr>
<tr>
<td>Motor Inertia (kg·m²)</td>
<td>0.003</td>
<td>0.0024</td>
<td>0.00525</td>
</tr>
<tr>
<td>Degree of Protection (The Shaft-Through Portion is Excluded)</td>
<td>IP44</td>
<td>IP44</td>
<td>IP44</td>
</tr>
<tr>
<td>External Dimensions (Flange Type) mm</td>
<td>174 SQ x 441</td>
<td>130 SQ x 325</td>
<td>174 SQ x 441</td>
</tr>
<tr>
<td>Flange Fitting Diameter (mm)</td>
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<td>ø110</td>
<td>ø150</td>
</tr>
<tr>
<td>Shaft Diameter (mm)</td>
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<tr>
<td>Weight (kg)</td>
<td>42</td>
<td>26</td>
<td>40</td>
</tr>
</tbody>
</table>

**Notes:**
1. The acceleration/deceleration frequency is limited by the regenerative resistor.
2. The maximum rotation speed is 15000r/min.

---

**General Notes**
1. Only the combination designated in this manual can be used for the motor and drive unit. Always use the designated combination.
2. Actual acceleration/deceleration output is 1.2-fold of “Standard output during acceleration/deceleration” or “Short time rated output”.