Torque Hinges
Fixed Torque / Adjustable Torque

Caution
Use two hinges for one door. Align the axes of the two hinges.
Do not use the hinges in any places requiring continuous open-close movements.
Vertical use is not recommended given product characteristics. For vertical use, adjust an allowable used torque value to the actual operating conditions.

Part Number | Rated Torque Type |
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HHPT | Adjustable Torque |
HHPTF | Adjustable Torque |

Part Number | Rated Torque Type |
--- | --- |
HHPR | Damper Hinges |
MSDH | Damper Hinges |

Example
Use a hex wrench to adjust torque value. It tightened with a force of 1.5N·m or more, a hex wrench might be damaged.

Table of Weight Selection Guide (per Hinge)

<Basic Principle>
The rotation of the inner vanes compresses the oil and generates control (brake) force to act against work force.

Table of Selection Guide

<How to Select a Damper Hinge>
The lid is in a horizontal position generates maximum torque as shown on the left. Calculate maximum torque according to the following formula before selecting a damper hinge that satisfies the specifications.

Max. Torque \( T = \frac{m \cdot g \cdot h}{2} \times 9.8 \) (Newton: N)

Ex.) When \( L = 0.4 \) m and \( m = 5 \) kg,

\[ \text{Max. Torque } T = \frac{5 \times 9.8 \times 0.4}{2} = 9.8 \text{ N·m} \]

Part Number | Reverse Torque 
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HHPR | 1A |
HHPR | 1B |
HHPR | 2A |
HHPR | 2B |
MSDH | 1A |
MSDH | 1B |
MSDH | 2A |
MSDH | 2B |

<How to Use the Table>
Select a damper in the intersecting area of the vertical axis (mass of lid: \( Q \) kg) and the horizontal axis (operation angle: \( \theta \) deg).

Selection Example: \( Q=2 \) kg, \( \theta=100 \) deg

According to the table, a damper MSDH satisfies the post where for vertical \( Q=2 \) kg and the horizontal \( \theta=100 \) deg.

Ex.) When \( L=0.4 \) m and \( m=5 \) kg,

\[ \text{Max. Torque } T = \frac{5 \times 9.8 \times 0.4}{2} = 9.8 \text{ N·m} \]

Note: The selection made by the calculation above is for reference only.

Operating Angle Range: -5~50°

Unit Price | Volume Discount Rate |
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HHPR | 1A |
HHPR | 1B |
HHPR | 2A |
HHPR | 2B |
MSDH | 1A |
MSDH | 1B |
MSDH | 2A |
MSDH | 2B |

<Formula>

\[ \text{Max. Torque } T = \frac{m \cdot g \cdot h}{2} \times 9.8 \]