

WJM050 Series

- Iron Core Technology
- Low Cogging Force
- Compact Size

Linear Motion

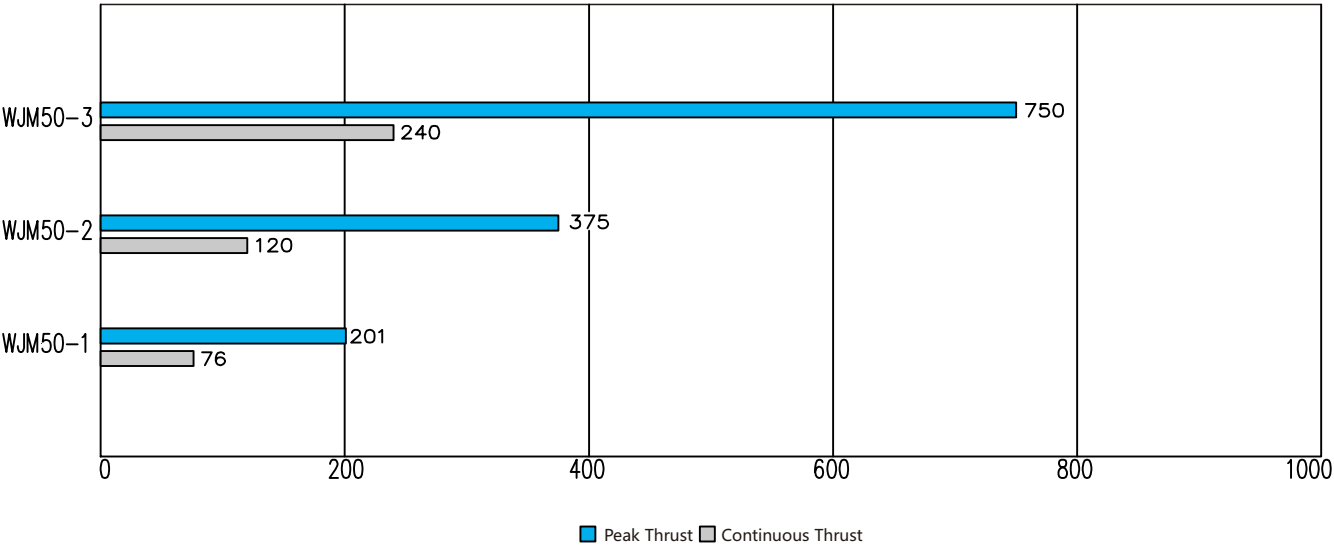
Horizontal/Vertical

Angular

Rotary

Vertical & Rotary

Thrust Graph



Specification Parameters

|  | Symbol    | Unit            | WJM50-1 | WJM50-2 | WJM50-3 |
|--|-----------|-----------------|---------|---------|---------|
| Continuous Thrust                                  | $F_c$     | N               | 76      | 120     | 240     |
| Continuous Current                                 | $I_c$     | $A_{rms}$       | 3       | 2.3     | 4.6     |
| Peak Thrust [1s]                                   | $F_p$     | N               | 201     | 375     | 750     |
| Limiting Current [1s]                              | $I_u$     | $A_{rms}$       | 12      | 9       | 18      |
| Thrust Constant                                    | $K_f$     | $N/A_{rms}$     | 25.4    | 52.2    | 52.2    |
| Attractive Force Between Mover & Stator            | $F_a$     | N               | 325     | 660     | 1300    |
| Max. Coil Temperature                              | $T_{max}$ | °C              | 100     | 100     | 100     |
| Electrical Time Constant                           | $K_e$     | ms              | 4.2     | 4       | 4       |
| Resistance [Phase-to-Phase, 25°C]                  | $R_{25}$  | $\Omega$        | 3       | 6.6     | 3.3     |
| Inductance [Phase-to-Phase, 25°C]                  | $L$       | mH              | 13      | 26      | 13      |
| Pole Pitch   | $2\tau$   | mm              | 20      | 20      | 20      |
| Back EMF Constant                                  | $K_v$     | $V_{rms}/[m/s]$ | 20.8    | 42.6    | 42.6    |
| Continuous Thermal Power (Natural Cooling) @ 100°C | $P_{CN}$  | W               | 52.7    | 69.8    | 139.7   |
| Motor Constant [25°C]                              | $K_m$     | $N/\sqrt{W}$    | 11.9    | 16.7    | 23.6    |
| Thermal Dissipation Constant (Natural Cooling)     | $R_{TH}$  | $W/^\circ C$    | 0.7     | 0.9     | 1.8     |
| Thermal Sensor Switch                              | -         | -               | PT100   | PT100   | PT100   |
| Max. Operating Voltage                             | -         | $V_{DC}$        | 600     | 600     | 600     |
| Mover Mass   | $M_f$     | kg              | 0.53    | 0.9     | 1.8     |
| Stator Unit Mass                                   | $M_s$     | kg/m            | 4.88    | 4.88    | 4.88    |

Note: All data in this table is measured at an ambient temperature of 25°C and represents values obtained without forced cooling. Except for dimensional specifications, all other specifications have a tolerance of ±10%. Our company reserves the right to make changes, and relevant parameters are subject to change without prior notice.

• Mover Model Number Designation System

WJM

Series

WJM

050

Mover Width

75

A

Mover Length

1:56mm  
2:96mm  
3:176mm

-

L05

Coil Wire Length

L05: 0.5m  
For other lengths, please consult our sales team.

• Stator Model Number Designation System

DJM

Series

WJM

050

Stator Width

050: 75mm

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L80

Stator Length

L80: 80mm  
L200: 200mm  
L400: 400mm

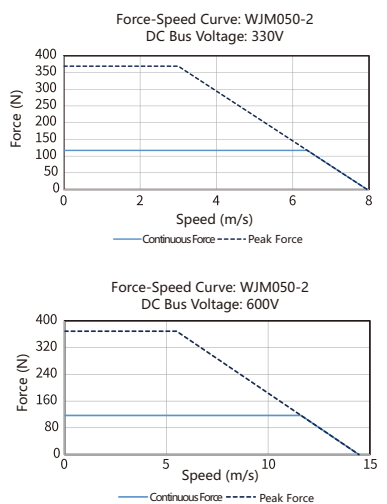
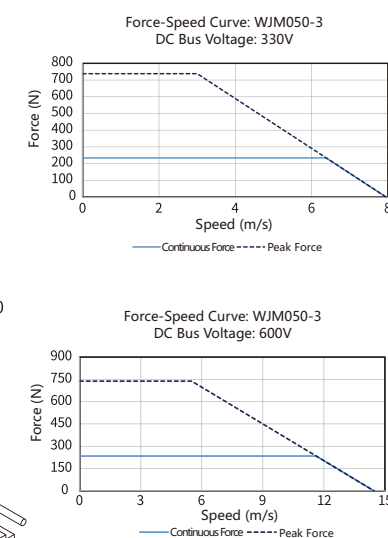
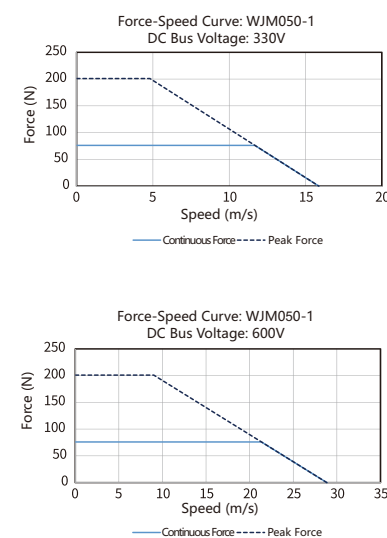
| Stator Model | Length LC | Width | Height | A   | Z   | Pole Pitch | Weight |
|--------------|-----------|-------|--------|-----|-----|------------|--------|
| Unit         | mm        | mm    | mm     | PCS | PCS | mm         | Kg/m   |
| WJM050-L80   | 80        | 75    | 10.3   | 1   | 4   | 20         | 4.88   |
| WJM050-L200  | 200       | 75    | 10.3   | 4   | 10  | 20         | 4.88   |
| WJM050-L400  | 400       | 75    | 10.3   | 9   | 20  | 20         | 4.88   |

The coils of the WJM050 series can be freely paired with WJM050-L80, WJM050-L200, or WJM050-L400.

• Stator Size



\* For special length requirements, please consult our sales team.



MEMO