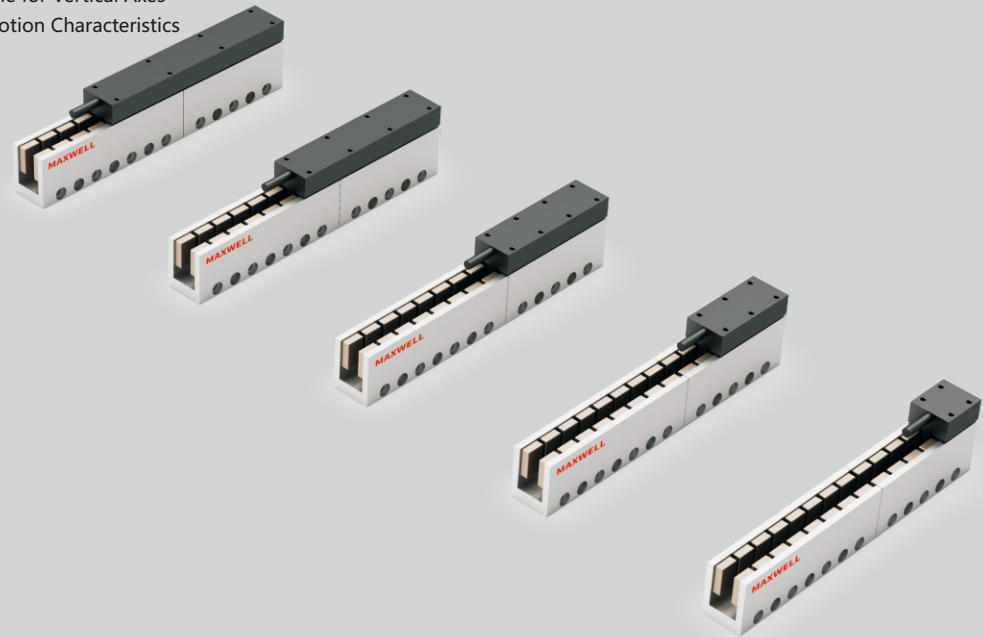


Ironless Linear Motor

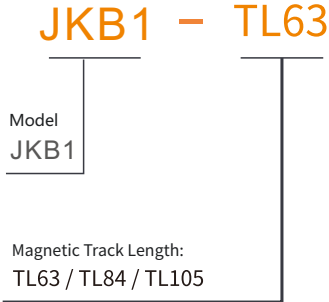
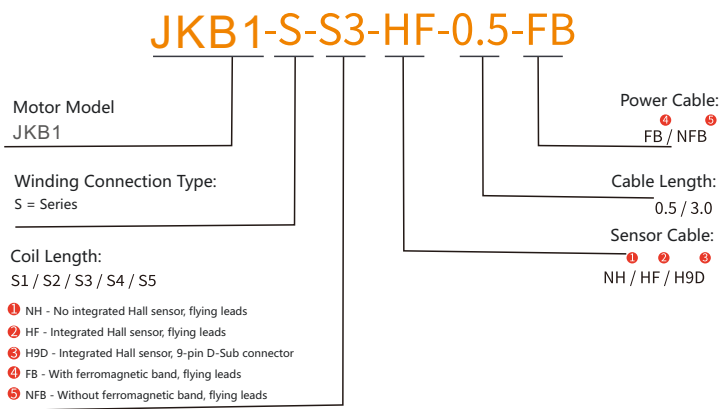
- Ironless Technology
- Compact Size, Suitable for Vertical Axes
- Excellent Dynamic Motion Characteristics



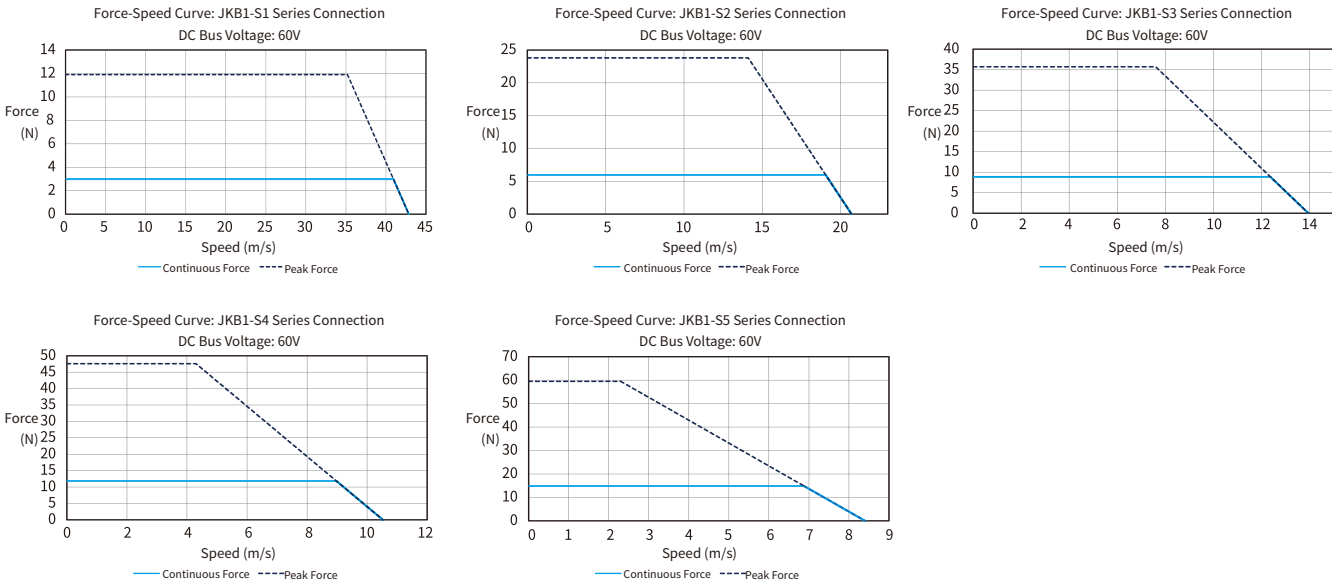
• Model Number Designation System

Mover Model

Stator Model



JKB1 Series: Thrust Graph



Specification Parameters

			JKB1-S1	JKB1-S2	JKB1-S3	JKB1-S4	JKB1-S5
Performance Parameters	Symbol	Unit	Series	Series	Series	Series	Series
Continuous Thrust (Natural Cooling) @100°C <sup>①</sup>	F <sub>cn</sub>	N	3.0	6.0	8.9	11.9	14.9
Peak Thrust	F <sub>pk</sub>	N	11.9	23.8	35.7	47.6	59.5
Force Constant ±10%	K <sub>f</sub>	N/Arms	1.75	3.50	5.25	7.00	8.75
Back EMF Constant ±10%	K <sub>e</sub>	Vpeak/(m/s)	1.4	2.9	4.3	5.7	7.1
Motor Constant @25°C	K <sub>m</sub>	N/Sqrt(W)	1.4	2.0	2.4	2.8	3.2
Phase-to-Phase Resistance @25°C ±10% <sup>②</sup>	R <sub>25</sub>	Ω	1.11	2.18	3.18	4.18	5.18
Phase-to-Phase Inductance ±50% <sup>③</sup>	L	mH	0.15	0.30	0.44	0.59	0.72
Electrical Time Constant	τ <sub>e</sub>	ms	0.14	0.14	0.14	0.14	0.14
Continuous Current (Natural Cooling) @100°C <sup>①</sup>	I <sub>cn</sub>	Arms	1.7	1.7	1.7	1.7	1.7
Peak Current	I <sub>pk</sub>	Arms	6.8	6.8	6.8	6.8	6.8
Continuous Thermal Power (Natural Cooling) @100°C <sup>①</sup>	P <sub>cn</sub>	W	6.20	12.18	17.77	23.32	28.94
Max. Coil Temperature	t <sub>max</sub>	°C	100	100	100	100	100
Thermal Dissipation Constant (Natural Cooling) <sup>①</sup>	K <sub>thn</sub>	W/°C	0.1	0.2	0.2	0.3	0.4
Max. Bus Voltage	U <sub>bus</sub>	Vdc	60	60	60	60	60
Electromagnetic Period	T <sub>NN</sub>	mm	21.0	21.0	21.0	21.0	21.0
Magnetic Attraction Force	F <sub>a</sub>	kN	0	0	0	0	0
Mechanical Parameters							
Coil Mass (Natural Cooling)	m <sub>cn</sub>	kg	0.03	0.05	0.08	0.10	0.13
Coil Length (Natural Cooling)	L <sub>cn</sub>	mm	22.0	43.0	64.0	85.0	106.0
Magnetic Track Mass (per meter)	m <sub>track</sub>	kg/m	2.37	2.37	2.37	2.37	2.37
Other Information							
Insulation Level		Class B (130°C)					
Protection Grade		IP00					
Compliance Standards		RoHS, CE					
Ambient Temperature	Operating	0°C - 40°C (no icing)					
	Storage	-15°C to 70°C (no icing)					
Ambient Humidity	Operating	10% to 80% RH (no condensation)					
	Storage	10% to 90% RH (no condensation)					
Recommended Operating Environment		Indoor (no direct sunlight) Free from corrosive gases, flammable gases, oil mist, or dust					

① Measured at 25°C room temperature, depending on heat dissipation conditions.

② Resistance measured with DC current, including 0.5m standard cable.

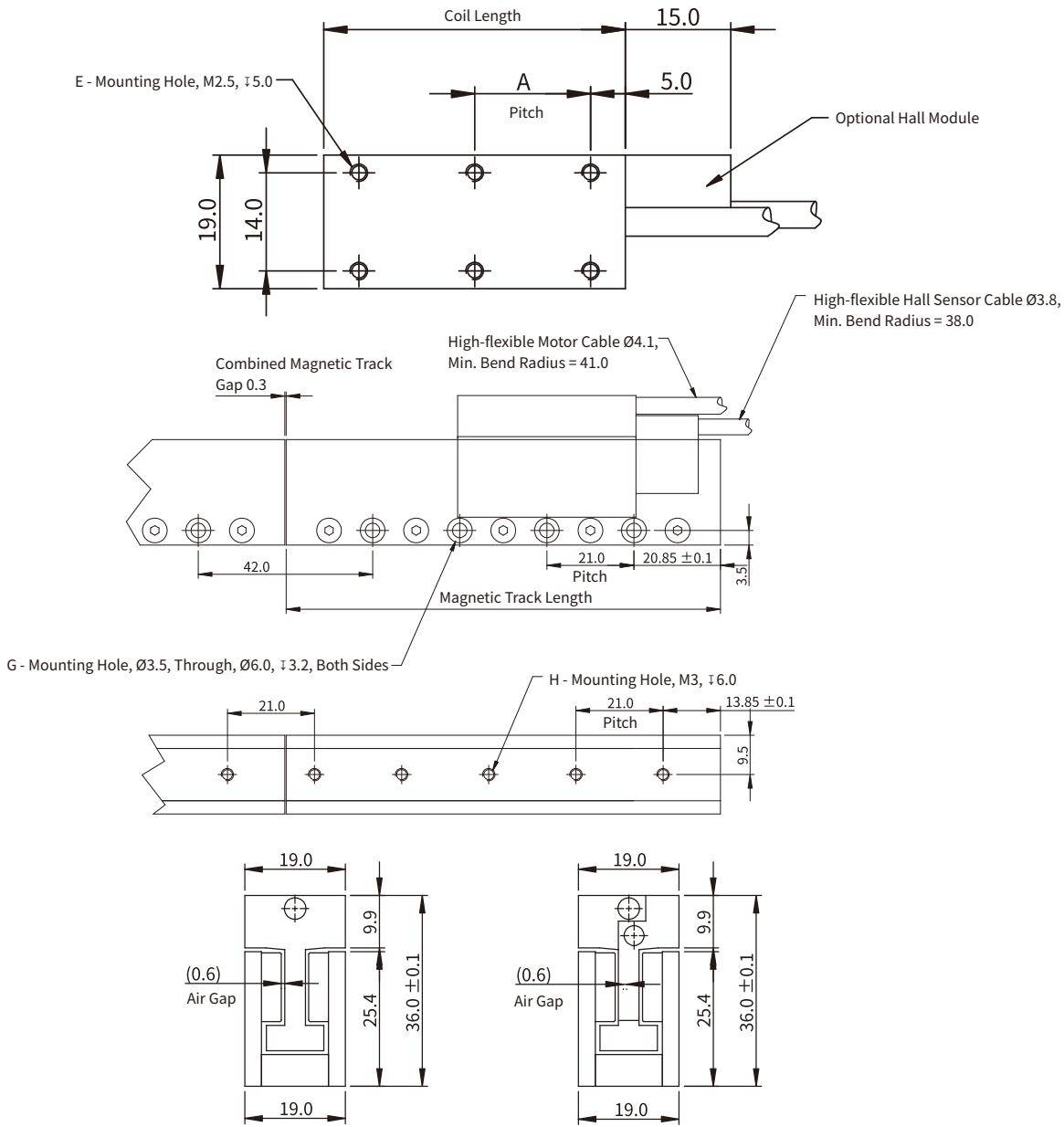
③ Inductance measured at 1kHz. The wide tolerance range (±50%) for JKB series is due to differences in three-phase inductance. The catalog value represents the average of maximum and minimum values, with each phase having ±25% tolerance.

Relevant parameters are subject to change without prior notice.

•JKB1: Dimensions

In Stock

Lead Time: 15-20 Days  
\*The lead time is subject to change during special periods. Please consult our sales team.



Option Without Hall Module

Option With Hall Module

Motor Coil			
Coil Model	Coil Length	E	A
JKB1-S1	22.0	4	12.0
JKB1-S2	43.0	6	16.5
JKB1-S3	64.0	8	18.0
JKB1-S4	85.0	8	25.0
JKB1-S5	106.0	8	32.0

Motor Magnetic Track			
Track Model	Track Length	G	H
JKB1-TL63	62.7	2	3
JKB1-TL84	83.7	3	4
JKB1-TL105	104.7	4	5

MEMO

Blank memo area for notes.