HB-DJ808

Data Sheet

WUXI HONGBA
Linear Actuator

Contents

Dear Customers，
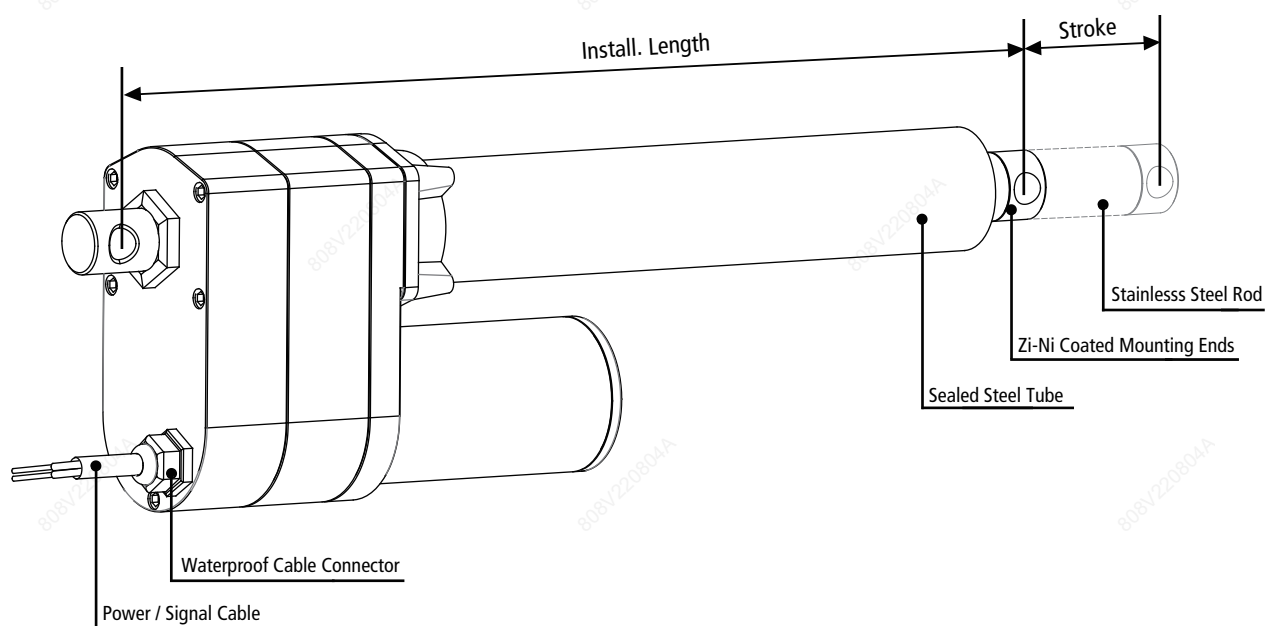
What a big world！But thanks to crazy technology, it's been getting smaller than ever, so that we can meet here from all corners of the world. It's our pleasure to have opportunities to provide you with a variety of products and services to help with the implementation of your amazing designs.

We present our products thoroughly in front of you by using refined parameters and words, so that you can find the most suitable solution.

Next, we will take you to a deeper understanding of Hongba's products. Please read this datasheet carefully. You are also welcome to leave valuable comments and suggestions to help Hongba improve itself continuously.

HB Engineer Team

Definition of Terms

Stroke

Install. Length

Stainlesss Steel Rod

Zi-Ni Coated Mounting Ends

Sealed Steel Tube

Waterproof Cable Connector

Power / Signal Cable

Stroke	How far the rod extends outwards from the body. The difference between fully extended length and fully retracted length. [Customizable]
Install. Length	The fully closed size. [Customizable]
Front Mount. End	Optional.
Rear Mount. End	Optional.
Mount. Holes	Can be rotated by 90°.
Dynamic Force	The max force that actuator is able to carry when it is moving.
Selflocking	The max force that linear actuator is able to hold when it stops.
Weather Protection	IP XX. The first digit: dust protection. The second digit: liquid protection. Please refer to [Table 1].
Duty Cycle	Continous working time 'a', rest time 'b'. Duty cycle is a/(a+b)x100%. Please refer to [Table 1].
Speed	Include free-load speed and full-load speed.
Hall Sensor	Provide pulse signals. Displacement measurement is achieved through pulse counting, and the phase difference of the waveform can be used to identify the rotation direction of motor. Check [Table 1] to see if it is available.
Potentiometer	Potentiometer is a three-terminal variable resistor with a rotating contact which is used to measure the displacement of actuators. Check [Table 1] to see if it is available.
Manual Override	Can be used to extend or retract the actuator without power for emergency. Check [Table 1] to see if it is available.

Configs.

Color	□Silver	■Black	□Customized		
Lead Screw	■Acme Screw	■Ball Screw			
Operation Mode	■Electrical	□ Electrical + Manual			
Application	■Industrial	□Furniture	□Medical		
Operational Temp.	□5 to 40℃	■-10 to 65℃	■-40 to 65℃		
Operating Noise	□≤45 dB	□≤50 dB	■≤65 dB		
Stroke Range	■50-600mm	■600-1,000mm			
Dynamic Load	□≤1,200N	□≤2,000N	□≤4,000N	■≤10,000N	□≤12,000N □≤20,000N
Duty Cycle	□10%	□20%	■25%*	□50%	□100%
Motor Type	■Brushed DC	□Stepper Motor	□Brushless	□Servo Motor	
Overload Protection	□None	■Clutch	□Electronic	■Thermistor	
Weather Protection	□IP20	□IP43	□IP54	■IP65	□IP66
Position Feedback	■None	■Endstop Signal	■Hall Sensor	■Potentiometer	□Encoder □Reed Switches
Input Voltage	■12VDC	■24VDC	■36VDC	■48VDC	□110VAC □220VAC

* Don't exceed four minutes continuous working at full load with 20℃.   Options for DJ808   □ Other Models

[Table 1]

Parameters

Fill in code:

| Lead Screw	Code	Max. Dynamic Load ②	Max. Self-locking	Reduction Ratio	Pitch	Speed±10% (mm/s) ①		Max. Stroke ③	
								w/o limit switch ④	limit switch with Pot or w/o Pot
		(N)	(N)	-	mm	Free Load	Full Load	mm	mm
Acme Screw	A	7,000	10,000	40:1	3.17	5.5	4	1,000	380
	B	7,000	10,000	40:1	5	8.5	7	1,000	610
	C	5,000	7,000	20:1	3.17	11	9.5	1,000	380
	D	4,000	5,500	20:1	5	17	14	1,000	610
	E	3,000	4,000	10:1	3.17	22	18	1,000	380
	F	2,000	2,800	10:1	5	35	28.5	1,000	610
Ball Screw	G	10,000	11,000	40:1	5	8.5	6.5	1,000	610
	H	7,000	8,500	20:1	5	17	13.5	1,000	610
	I	3,500	4,500	10:1	5	35	27	1,000	610

[Table 2]

① Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.

② For example, when real load is 5000N, choosing code (C) is fine. Of course, you can also choose (B) or (A) which come with more load buffer, higher safety factor and longer product service time.

③ There are many factors affecting the "customizable maximum stroke", such as load, speed, force direction, etc., so the real application scenarios should be considered. If the parameters you required are not listed, please contact our sales engineers.
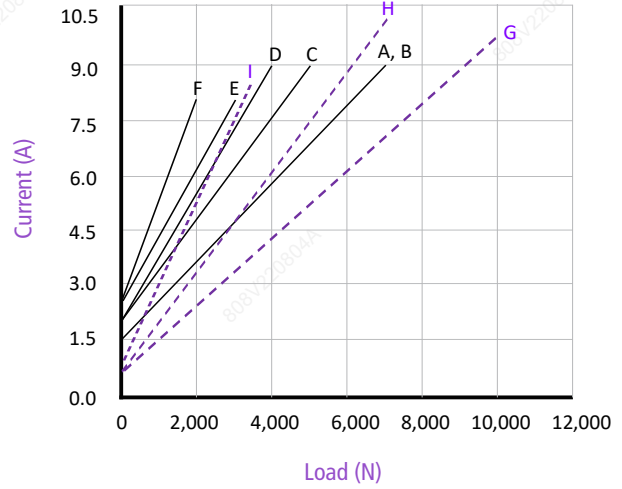
④ Potentiometer is not optional.

Charts

1 = 12v
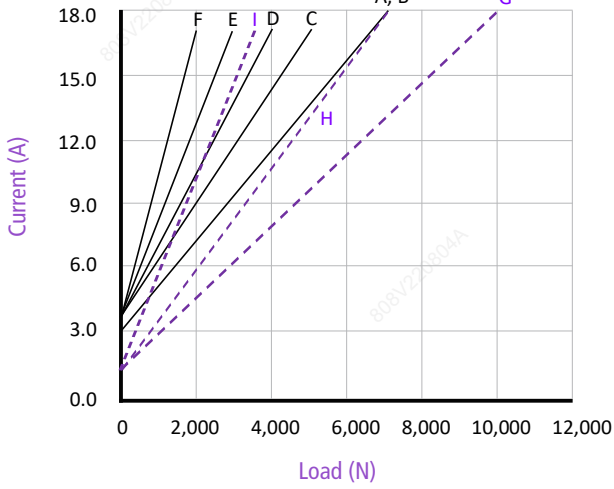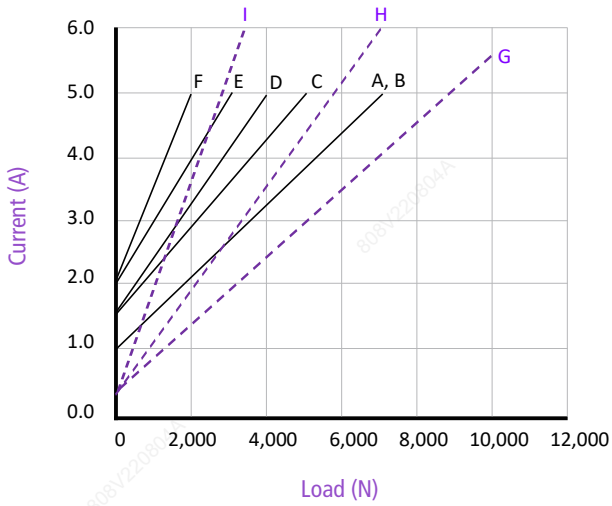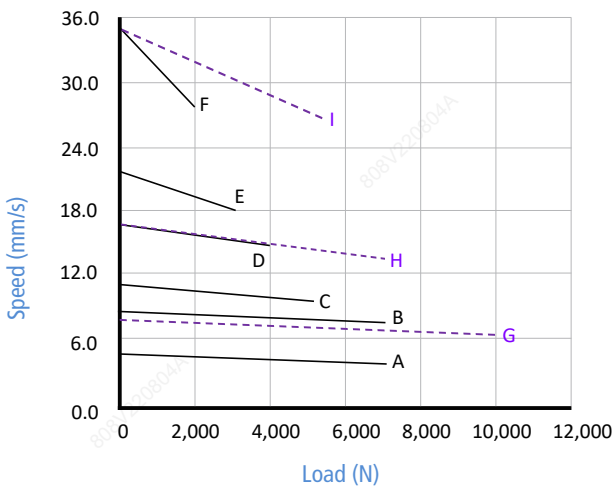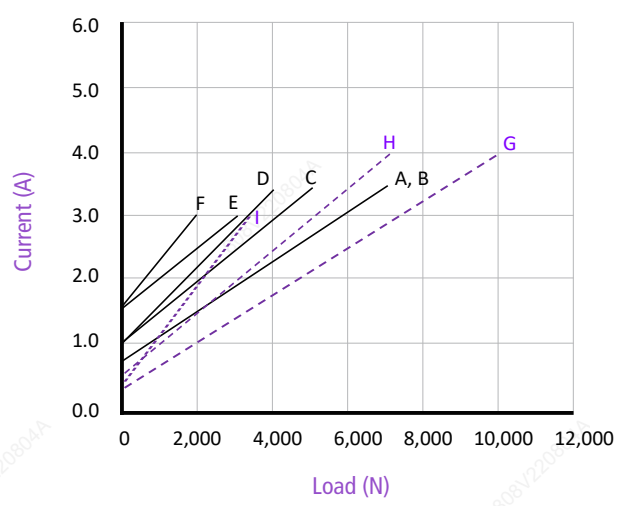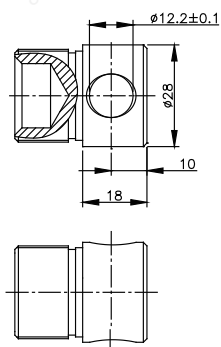

2 = 24v

3 = 36v

4 = 48v

* Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.
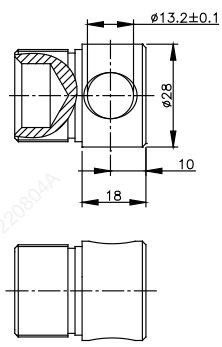
Front Mounting End

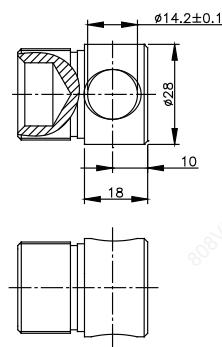1. Please contact our sales team if none of the options below meet your requirements.
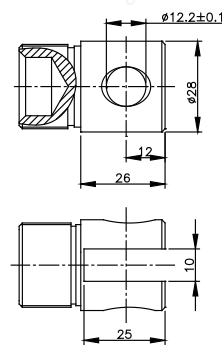
Fill in code:

Ø12.2±0.1 Ø28 10 18

F01

Ø13.2±0.1 Ø28 10 18

F02

Ø14.2±0.1 Ø28 10 18

F03

Ø12.2±0.1 Ø28 12 26 10 25

F04

Ø13.2±0.1 Ø28 12 26 10 25

F05

20 M16x2 10 24 Ø28

F06

20 12 M16x2 24 Ø28

F07

Ø32 Ø12—H7 16

F08

Ø32 Ø16—H7 21
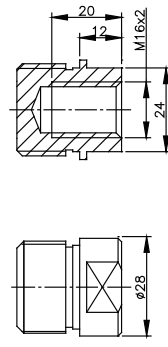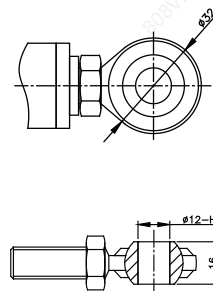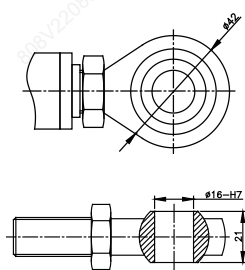
F09

2. Start of Installation Length

3. Hole Directions

Fill in code:

1 = 90°   2 = 0°

Rear Mounting End

1. Please contact our sales team if none of the options below meet your requirements.
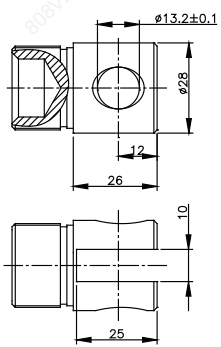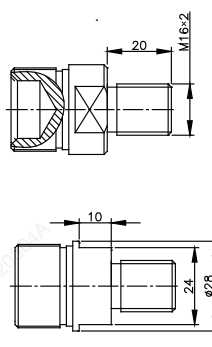
Fill in code:

R01

R02
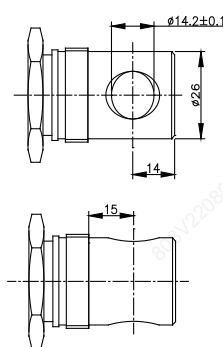
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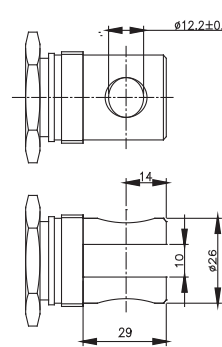
R04
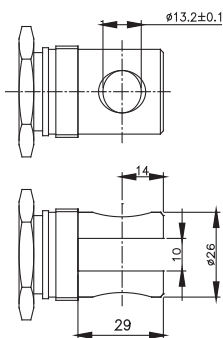
R05
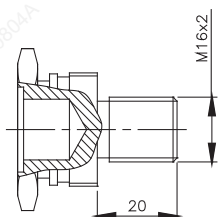
R06
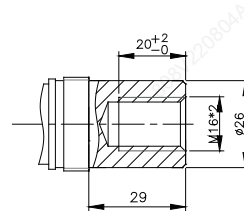
R07

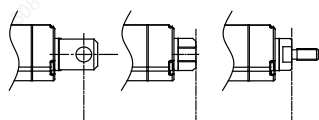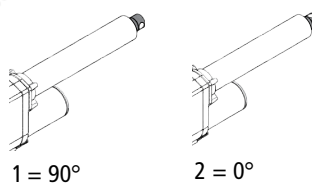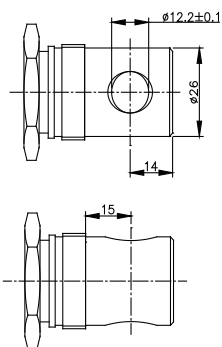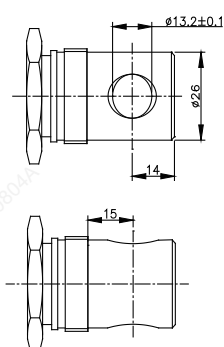2. End of Installation Length
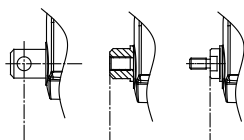
3. Hole Directions

Fill in code:
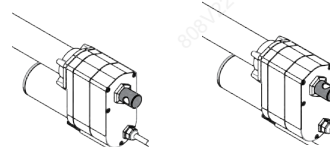
1 = 90°

2 = 0°

Overall Dimension

[Intergrated Limit Switches]

S =   mm, L =   mm

76

151

113

L

24.5

14

23.5 10

S

Ø51

Ø64

A. Mounting Ends VS Install. Length

Front Mount. Ends	Rear Mount. Ends
	R01, R02, R03, R04, R05, R06, R07
F01, F02, F03, F04, F05, F06, F07	A≥S+ 250mm
F08, F09	A≥S+ 300mm

[Table 3]

B. Stroke VS Install. Length

Stroke (S) (mm)	Install. Length (L) (mm)
50 - 399	+ 0
400 - 610	+ 50

[Table 4]

How to calculate 'Install. Length' ?

S = Stroke, L = Install Length, L ≥ A + B

Example

Front Mount.	Rear Mount.	S (mm)	A (mm)	B (mm)	L≥A+B (mm)
F08	R01	300	300+300	+0	≥600

[Table 5]

Overall Dimension

[Without Limit Switches]

S =   mm, L =   mm

A. Mounting Ends VS Install. Length

	Rear Mount. Ends
Front Mount. Ends	R01, R02, R03, R04, R05, R06, R07
F01, F02, F03, F04, F05, F06, F07	A≥S+ 200mm
F08, F09	A≥S+ 250mm

[Table 6]

B. Stroke VS Install. Length

Stroke (S) (mm)	Install. Length (L) (mm)
50 - 399	+ 0
≥ 400	+ 50

[Table 7]

How to calculate 'Install. Length' ?

S = Stroke, L = Install Length, L ≥ A + B

Example

Front Mount.	Rear Mount.	S (mm)	A (mm)	B (mm)	L≥A+B (mm)
F08	R01	300	300+250	+0	≥550

[Table 8]

Signal Feedback

0. Standard Limit Switches without Signal feedback

Standard DJ808 comes with limit switches that shut off the motor automatically at the end of its travel.
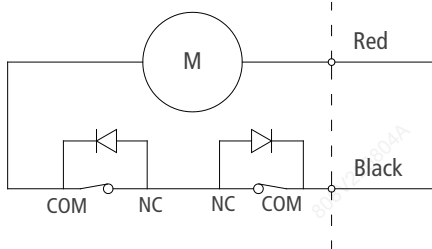
	Wiring	
	Black	Red
Extend	-	+
Retract	+	-

[Table 9]

1. Endstop Signal

The actuator can be equipped with endstop signals output, but it will not auto-stop at neither end of the travel.
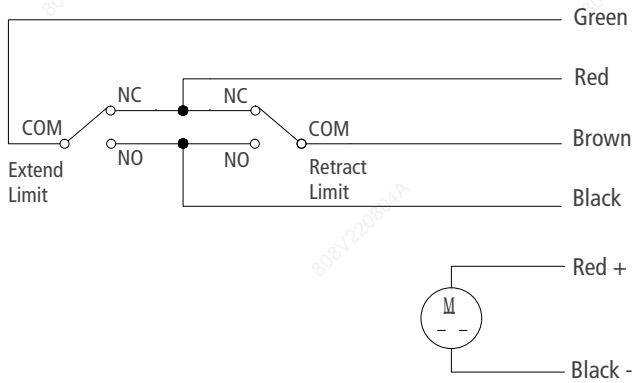
Power Wire Coding		
	Black	Red
Extend	-	+
Retract	+	-
Signal Wire Coding		
Black	Extend / Retract limit, N.O.	
Red	Extend / Retract limit, N.C.	
Green	Extend limit. COM.	
Brown	Retract limit. COM.	

[Table 10]

2. Hall Sensor (standard dual-sensor)
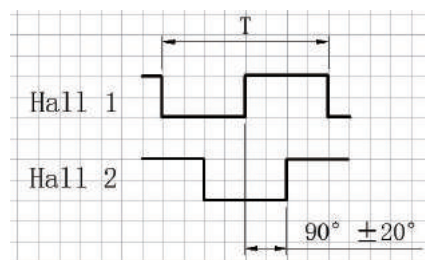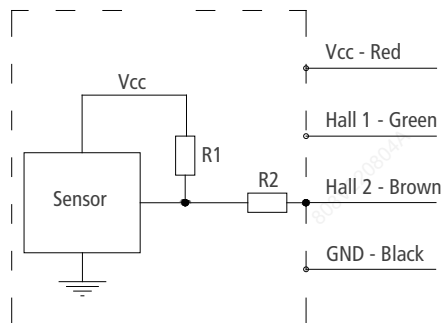
* Power supply (V)= 5~15V

Code	Pulse Equivalent per Sensor (pulse/mm)	
	1 pole pair	4 pole pairs (standard)
A	12.6	50.5
B	8.0	32.0
C	6.3	25.2
D	4.0	16.0
E	3.2	12.6
F	2.0	8.0

[Table 11]

3. Potentiometer

Code	Max. Stroke	Resistance Value per mm
A, C, E	380 mm	0.0250 K Ω
B, D, F	610 mm	0.0159 K Ω

* Start value 0.5±0.1K Ω

[Table 12]

Signal wires

Yellow — Voltage In

Red — Voltage Out

White — Ground

2 Red - Slider
1 White - Home
3 Yellow - End

Connect 1+2, resistance value increase, actuator extend.
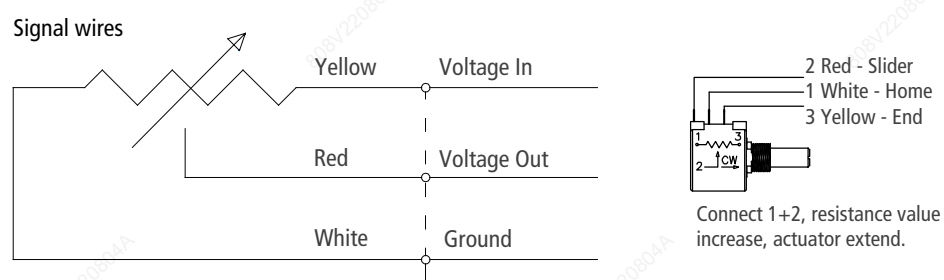
Inquiry Table

RESET

☐	Voltage	1 = 12VDC 2 = 24VDC 3 = 36VDC 4 = 48VDC
☐	Load & Speed	See [Table 2]
☐☐	Stroke (mm)	Please contact us if the stroke you required is out of range.
☐☐	Install. Size (mm)	See Table [3] - [8]
☐	Front Mount. End	F01 - F09 FX = Custom
☐	Rear Mount. End	R01 - R07 RX = Custom
☐☐	Mount. Hole Direction	Front 1 = 90° 2 = 0° Rear 1 = 90° 2 = 0°
☐	Signal Feedback	0 = None 1 = Endstop Signal 2 = Hall Sensor 3 = Potentiometer
☐	Cable Length	1 = 400mm 2 = 1,000mm 3 = 2,000mm X = Custom
☐	Connector	0 = Tinned bared wires 1 = Go with KZ control X = Custom
☐	Working Temperture	1 = -10℃ to 65℃ 2 = -40℃ to 65℃

Application	Working Frequency	Estimated cycles work per day
	End Use	Indoor or outdoor, and please describe your end use.
	Your Contact	Company Name
		Tel. Email

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Wuxi Hongba Mechanical Electrical Equipment. Co., Ltd.

Cell:
Email:
Tel.: 0510-85436730
Website: hbactuator.com
Address: 5 Lijiang Rd. Xinwu District, Wuxi 214028 China

📖 You may also be interested in...

Model	Load (N)	Stroke (mm)	Speed (mm/s)	Install.Length (mm)	Overall Size (mm)	IP rate	Application
DJ803 (Track)	1,500	50-600	16-32	155	155 x 77.4 x L	IP20	Furniture
DJ823	3,000	50-600	5.0-15	S+155	148.5 x 80 x L	IP54	Furniture Medical Care
DJ810	4,000	50-600	5.0-32	S+150	156 x 83 x L	IP43	Furniture Medical Care
DJ801	6,000	50-600	4.7-28	S+175	156 x 83 x L	IP43	Furniture Medical Care
DJ822	6,000	50-600	5.0-16	S+175	166 x 91 x L	IP54	Furniture Medical Care
DJ806	1,200	50-600	5.5-80	S+105	40 x 75 x L	IP66	Industrial
DJ809	2,000	50-600	5.0-55	S+108	45 x 77.5 x L	IP66	Industrial
DJ825	2,000	50-600	6-15	S+115	43 x 84.5 x L	IP66	Furniture Medical Care Industrial
DJ820	2,500	50-600	2.5-22	S+120	64.5 x 102 x L	IP66	Furniture Medical Care Industrial
DJ820P	1,000	50-600	25-50	S+140	64.5 x 102 x L	IP66	Industrial
DJ830	4,000	50-600	5.5-35	S+200	76 x 151 x L	IP65	Industrial
DJ830P	7,000	50-600	5.5-35	S+200	76 x 151 x L	IP65	Industrial
* DJ808	7,000	50-600	5.5-35	S+250	77 x 151 x L	IP65	Industrial
DJ805G	12,000	50-1,000	25-100	S+200	102 x 154 x L	IP66	Industrial
DJ812	20,000	50-1,000	5.5-35	S+600	N/A	IP55	Industrial
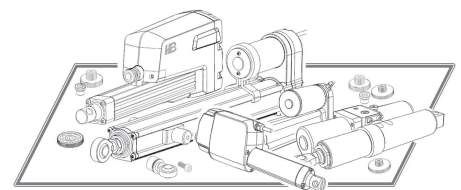
For more information, please visit our website hbactuator.com