JC35D1 Linear Actuator

JC35D1 is a powerful actuator designed for a variety of medical applications. It is developed for both push and pull applications and has a very robust construction.



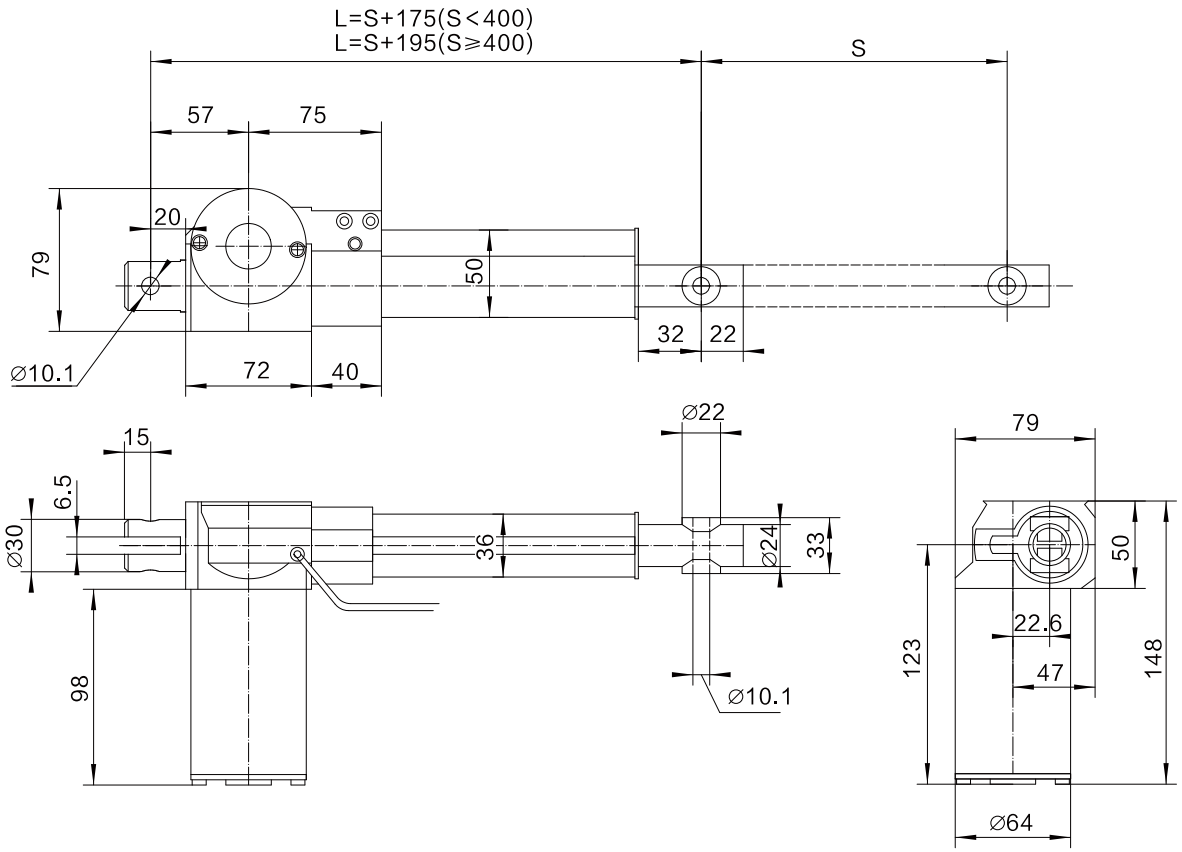
Features And Options

Dynamic Load Push(N):	6000 | 4000 | 3000 | 2000 | 1500 | 1000 | 750
Dynamic Load Pull(N):	4000 | 3000 | 2000 | 1500 | 1000 | 750
Colour:	Gray / Black
Protection Class:	IP43
Stroke Length:	6000N：50-250mm 4000N：50-400mm 3000N：50-600mm 2000N：50-600mm 1500N：50-600mm 1000N：50-600mm 750N：50-600mm
Installation Dimension:	L=S+175 (S＜400) L=S+195 (S≥400)
Noise Level:	≤50dB (environmental noise≤40dB)
Optional:	Only push, Hall sensor
Limit Switch:	Built-in (electronic)
Weight:	About 2kg (This is the weight of 150/325,different stroke/retracted length with different weight)
Static Bending Moment:	Lateral load is not allowed
Approval:	IEC60601-1: 2012 EN 60601-1: 2006+A12:2014 ANSI/AAMI ES60601-1: 2005/(R)2012 and A1: 2012 C1:2009/(R)2012 and A2: 2010/(R)2012

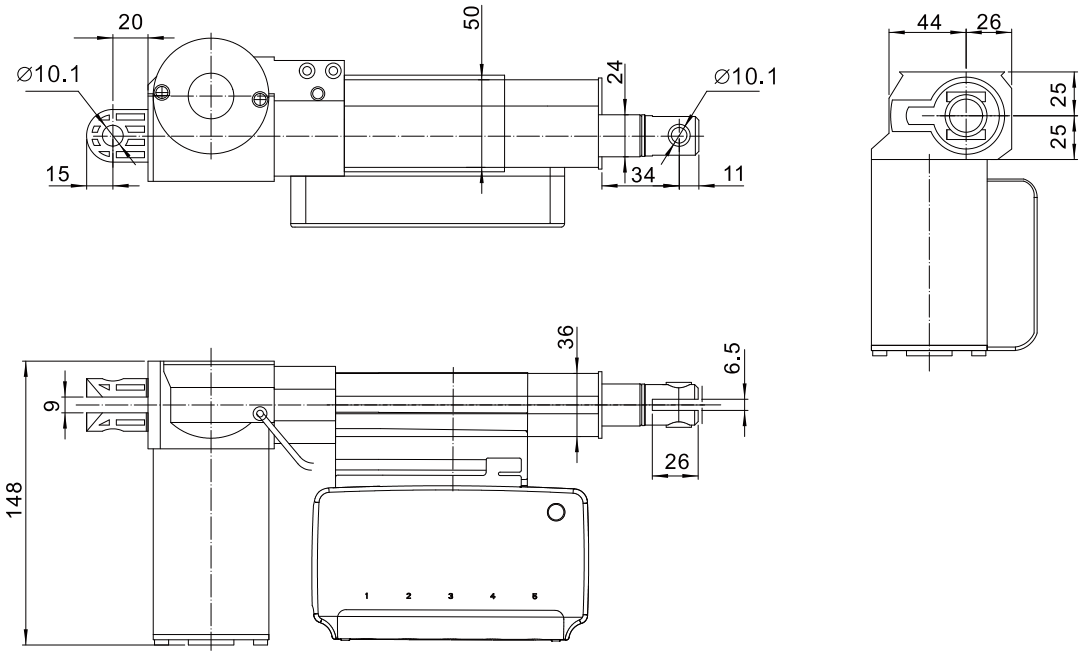
Usage

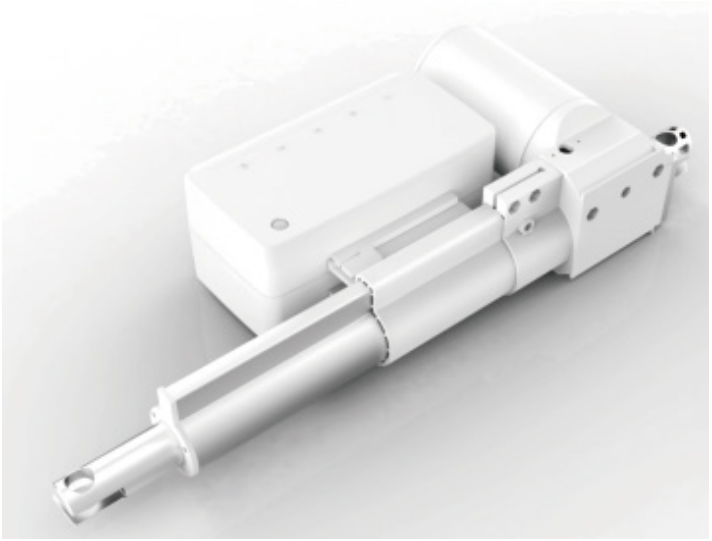
Duty Cycle:	10%, max. continuous work for 2min. and 18 min. off
Operating Temperature:	+5 °C to +40°C
Reserve Temperature:	-10°C to +50°C
Supporting Control Box:	Optional Jiecang conventional controller
Relative Humidity:	20% - 90% at 30°C, non condensing
Atmospheric Pressure:	700 to1060hPa

Dimensions



JCB35Q installing with JC35D1





Technical Specifications (Standard Value)

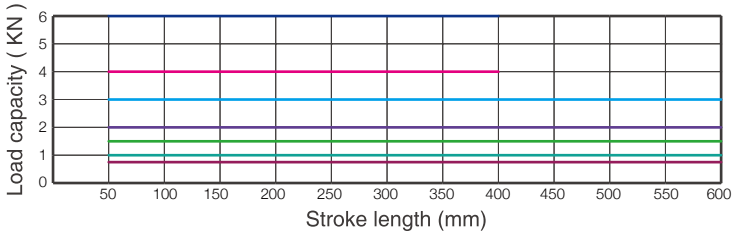
Input voltage (VDC)	Spindle pitch (mm)	Max. load in push (N)	Max. load in pull (N)	Mechanical self-locking (N)	Speed at no load/full load（mm/s）	Current at full load (A)
24	16	750	750	500	45/36	≤5.0
	16	1000	1000	500	48/37.5	≤5.0
	12	1000	1000	800	32.8/25	≤4.5
	7.5	1500	1500	1500	20.4/16	≤6.0
	5	2000	2000	3000	13.9/11	≤4.5
	7.5	2000	2000	1500	20.4/16.1	≤6.0
	4	3000	3000	3000	4.5/3.9	≤4
	7.5	3000	3000	3000	8.6/6.5	≤4
	5	3000	3000	3000	13.9/10	≤5.5
	4	3000	3000	3000	11.1/7.8	≤5
	7.5	3000	3000	2000	11.7/8	≤5
	5	4000	4000	4000	5.8/4	≤4.0
	5	4000	4000	4000	7.8/5.3	≤4.5
	4	6000	4000	6000	4.6/3.4	≤4.5
	4	6000	4000	6000	6.1/4.1	≤6.5
	5	6000	4000	6000	6.0/4.6	≤4.5
	5	6000	4000	4000	6/4.5	≤6
29	16	750	750	500	54/43.2	≤5.0
	16	1000	1000	500	57.6/45	≤5.0
	12	1000	1000	800	39.3/30	≤4.5
	7.5	1500	1500	1500	24.5/19.2	≤6.0
	5	2000	2000	3000	16.7/13.2	≤4.5
	7.5	2000	2000	1500	24.5/19.3	≤6.0
	4	3000	3000	3000	5.5/4.6	≤4
	7.5	3000	3000	3000	10.4/7.8	≤4
	5	3000	3000	3000	16.7/12	≤5.5
	4	3000	3000	3000	13.3/9.4	≤5
	7.5	3000	3000	2000	14/9.6	≤5
	5	4000	4000	4000	7/4.8	≤4.0
	5	4000	4000	4000	9.3/6.4	≤4.5
	4	6000	4000	6000	5.5/4.1	≤4.5
	4	6000	4000	6000	7.3/4.9	≤6.5
	5	6000	4000	6000	7.2/5.5	≤4.5
	5	6000	4000	4000	7.2/5.3	≤6
36	16	1000	1000	1000	50 /65	≤3.5
	5	3000	3000	3000	15/20.5	≤5.5
	5	6000	4000	4000	10.8/8.3	≤6

Remarks: It can achieve better self-locking ability with Jiecang control box;
The above data is the standard value of the test data (inspection specification) at room temperature of 25°C;

Input voltage (VDC)	Spindle pitch (mm)	Max. load in push (N)	Max. load in pull (N)	Mechanical self-locking (N)	Speed at no load/full load（mm/s）	Current at full load (A)
12	16	750	750	750	41.0/22.0	≤11.0
	16	1000	1000	750	41.0/15.0	≤11.5
	12	1000	1000	1000	29.0/20	≤8.0
	5	2000	2000	2000	13/9	≤10
	7.5	2000	2000	2000	19.4/12.5	≤12.0
	7.5	3000	3000	2000	9.8/5.7	≤9.5
	5	3000	3000	4000	7.0/4.8	≤9.5
	5	4000	4000	4000	7.0/4.5	≤9.5

Remarks: It can achieve better self-locking ability with Jiecang control box;
The above data is the standard value of the test data (inspection specification) at room temperature of 25°C;

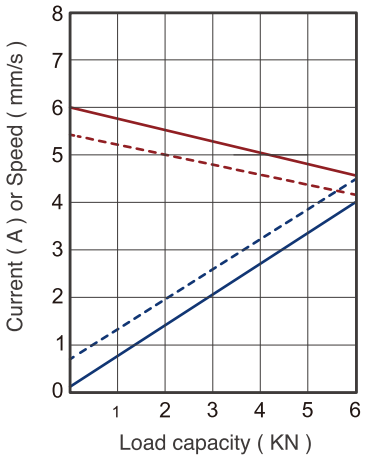
Diagram of relationship between stroke length and load



Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

6000-24V



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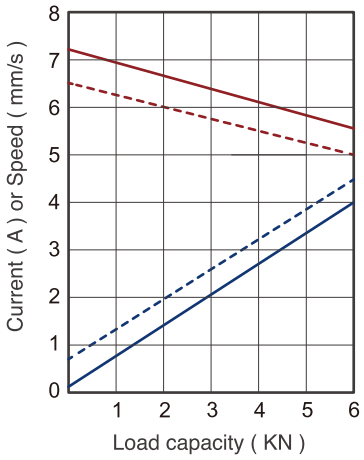

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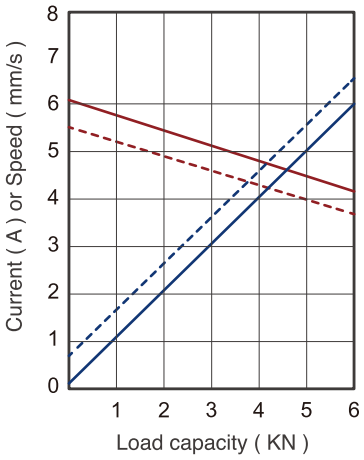

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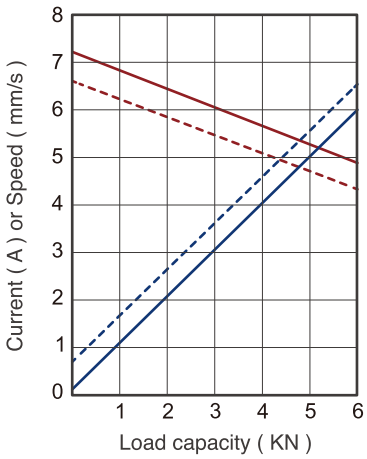

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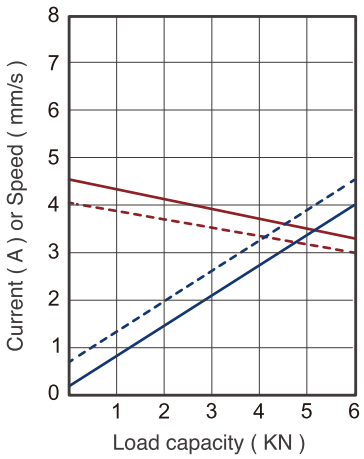

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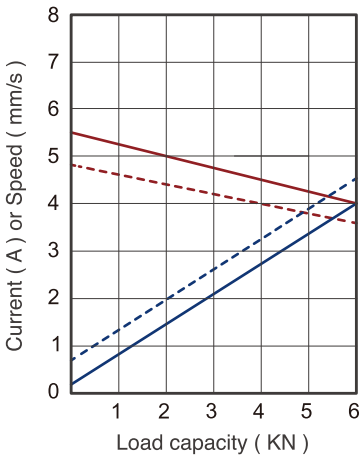

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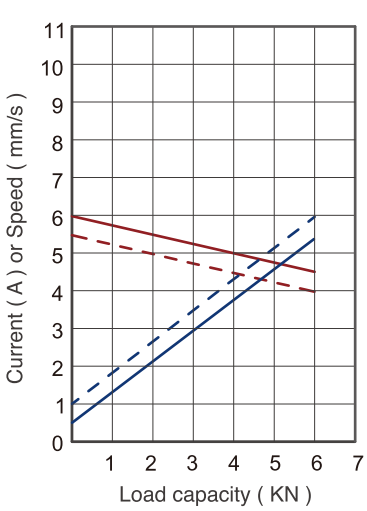

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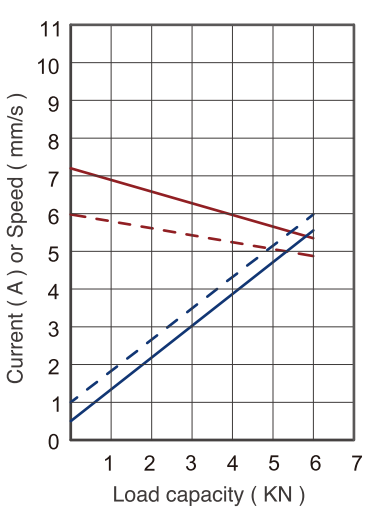
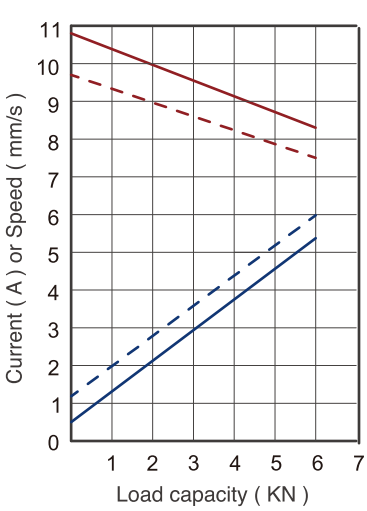


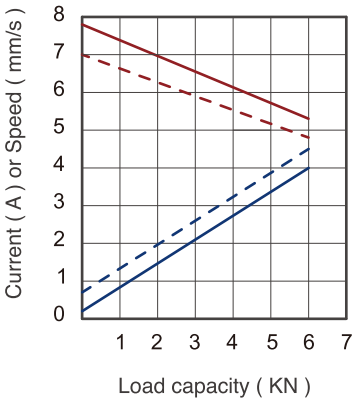
6000-36V



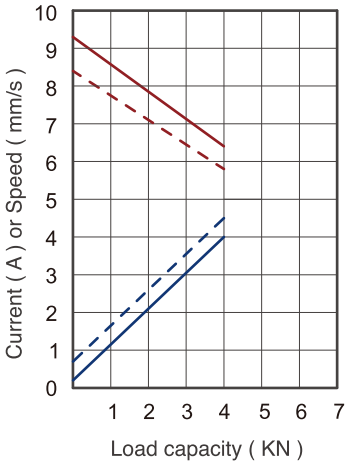
Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

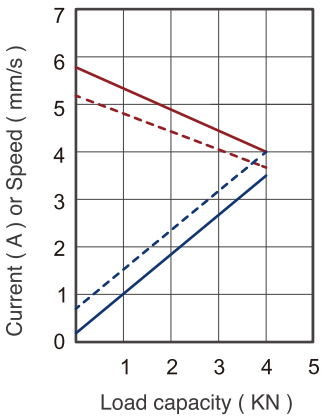
4000-24V



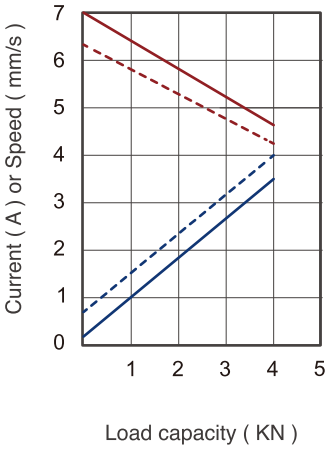
4000-29V



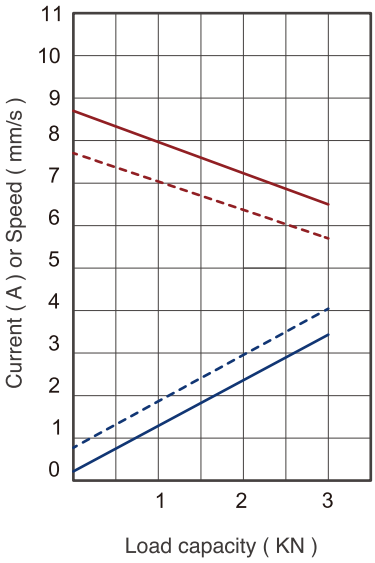
4000-24V



4000-29V



3000-24V



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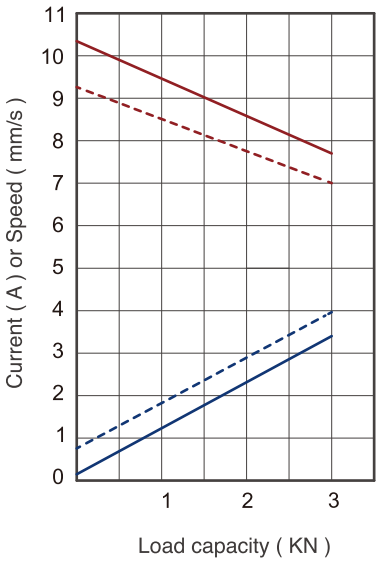
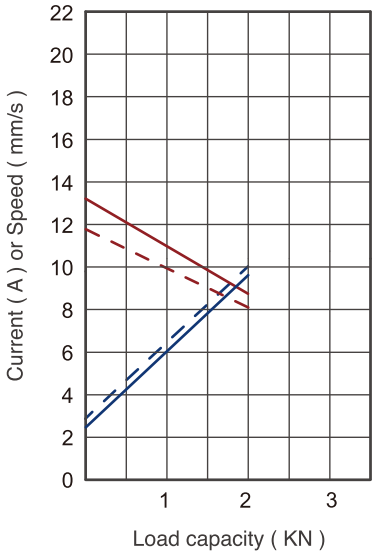


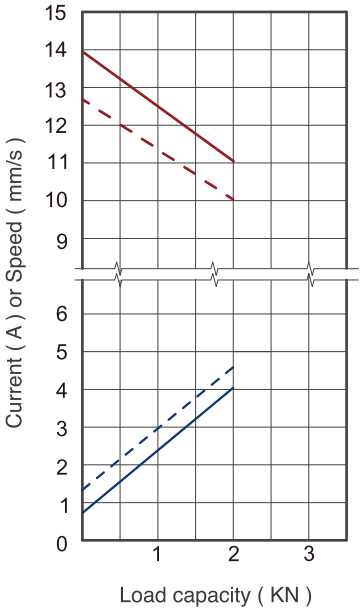
Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

2000-12V



2000-24V



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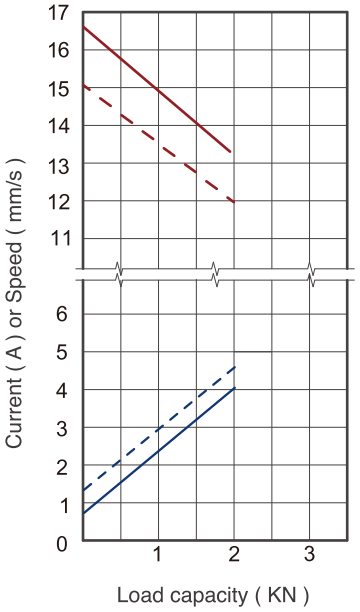
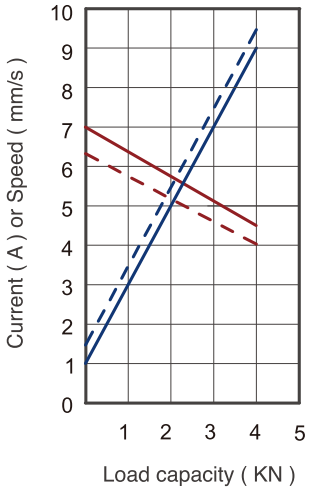


4000-12V



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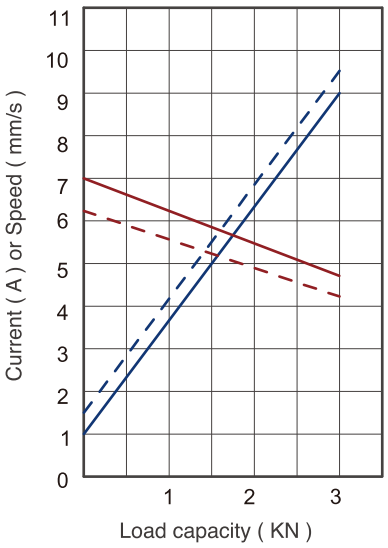

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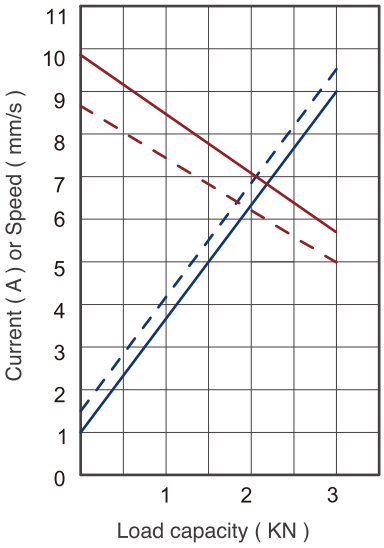
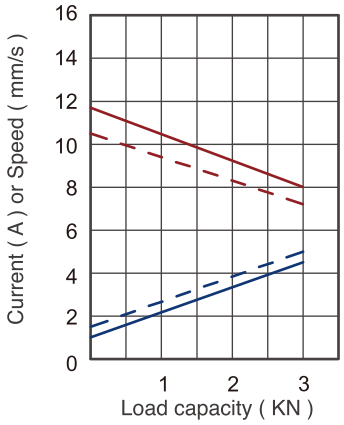


Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

3000-24V



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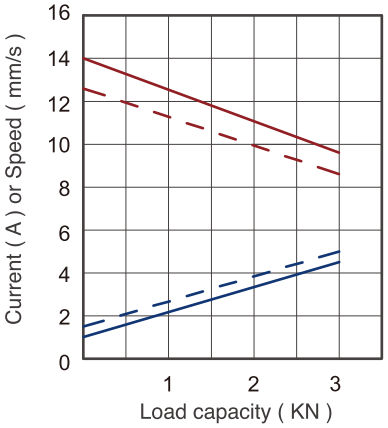
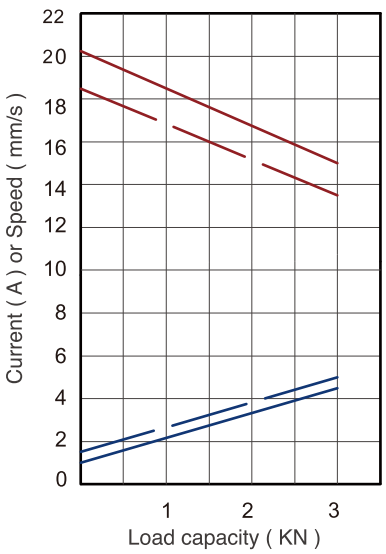


3000-36V



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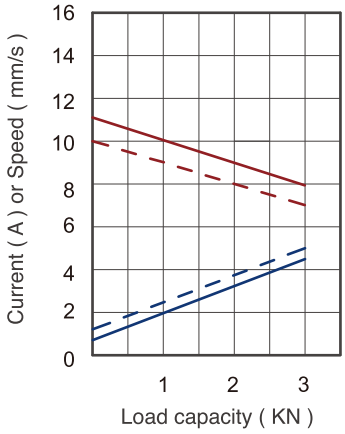

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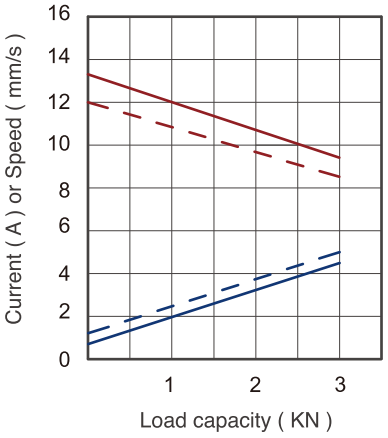

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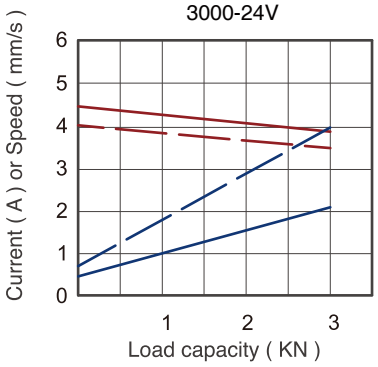

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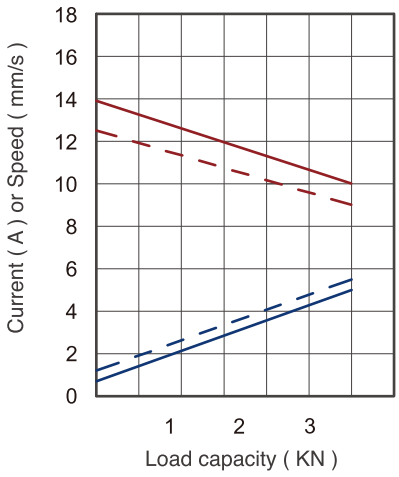

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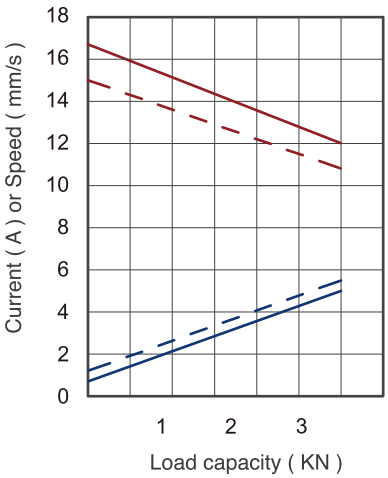

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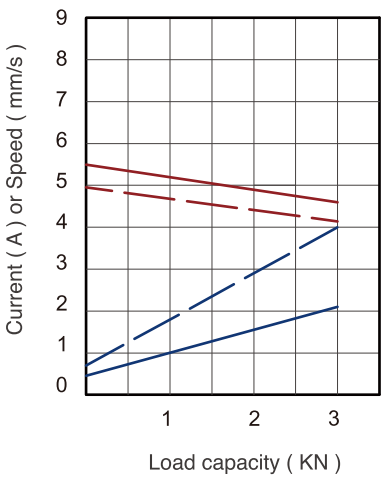
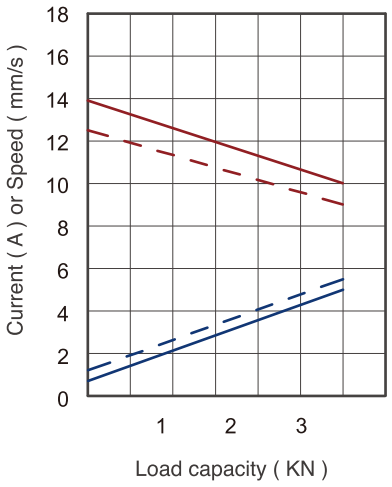


Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

3000-24V



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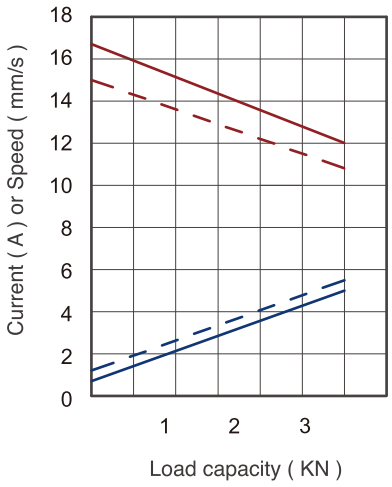

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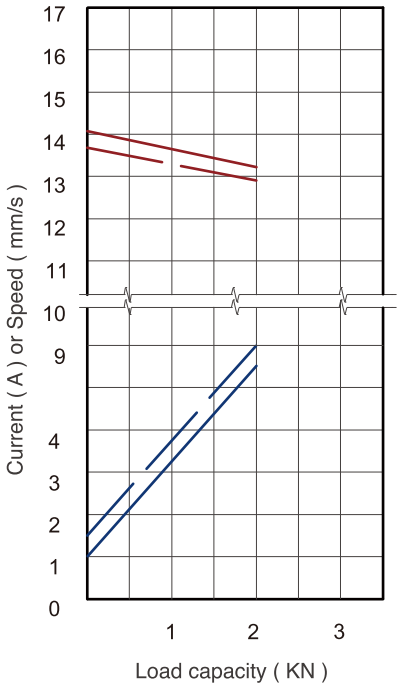

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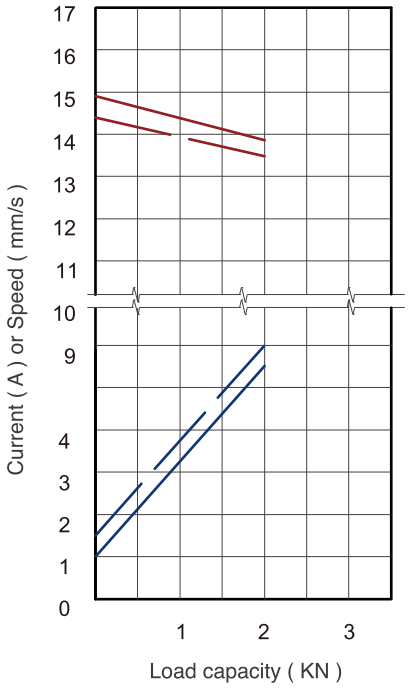
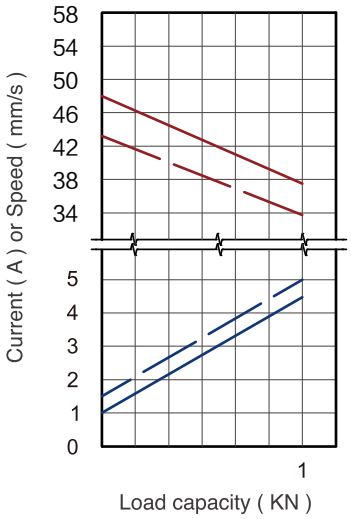


Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

1000-24V



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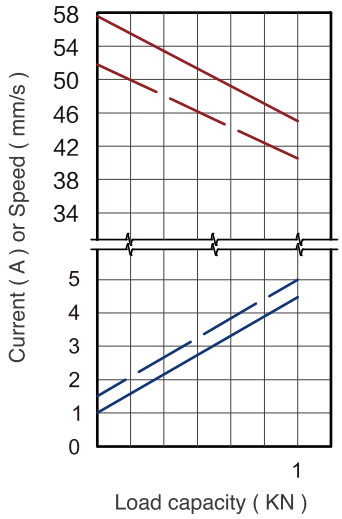

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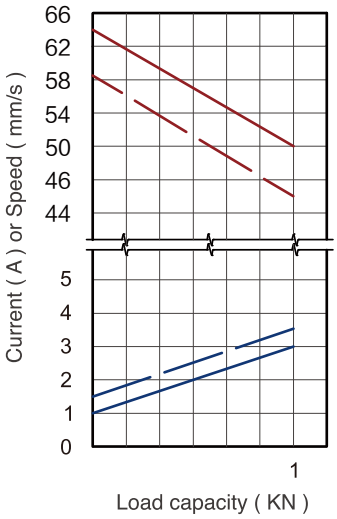

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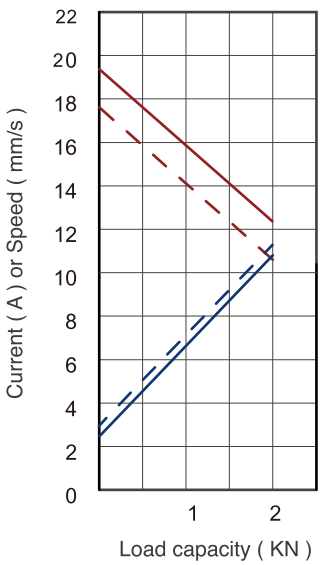
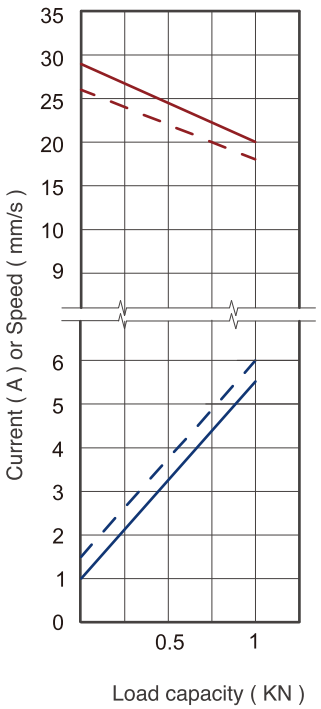
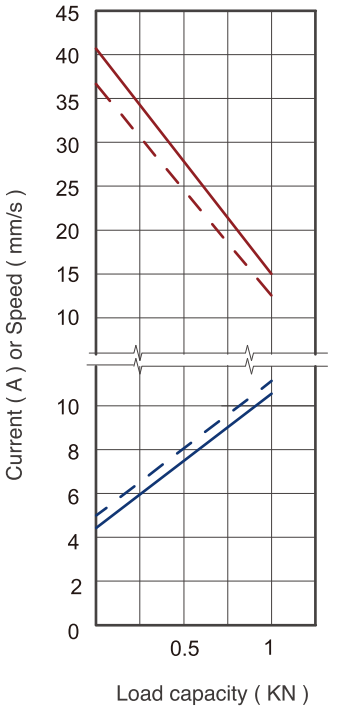


1000-12V



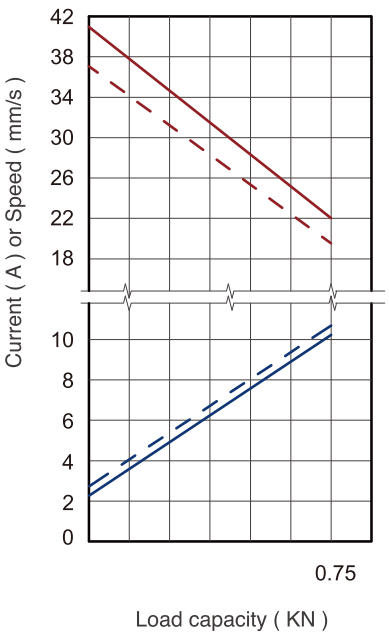
1000-12V



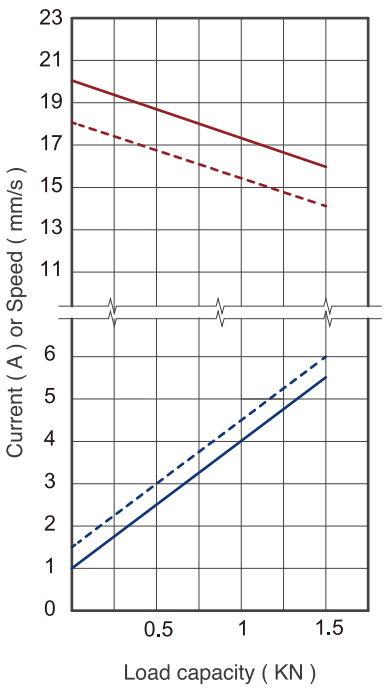
Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

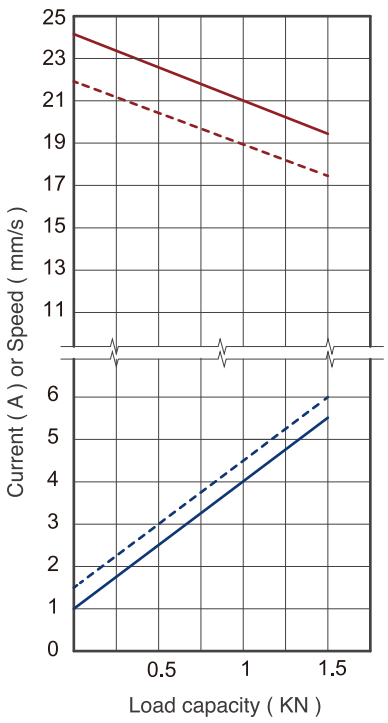
750-12V



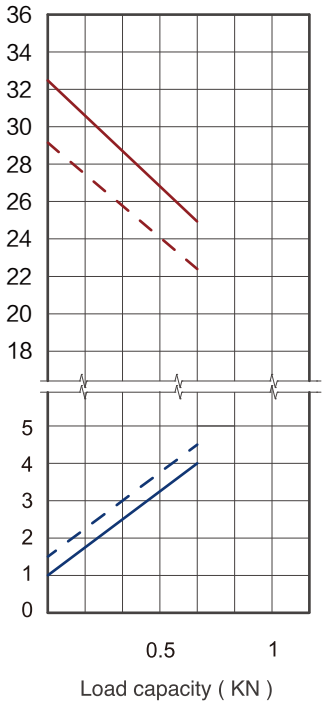
1500-24V



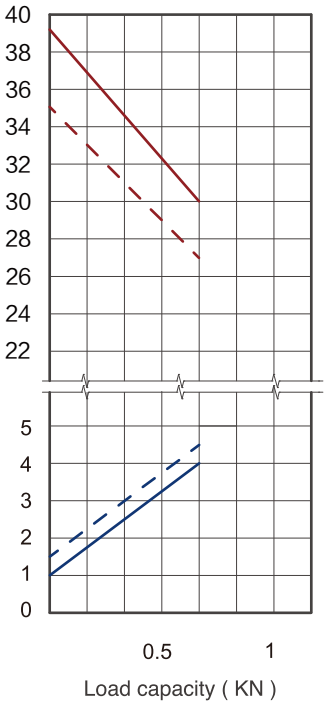
1500-29V



1000-24V



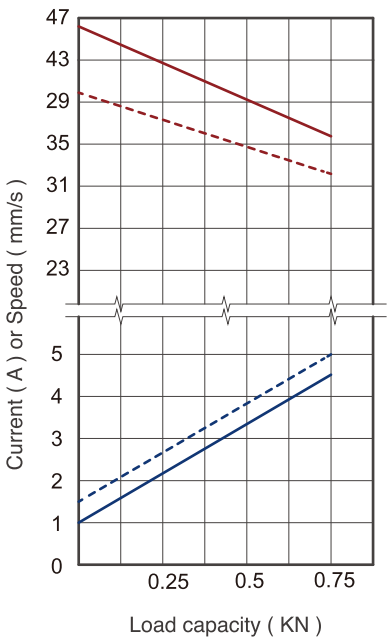
1000-29V



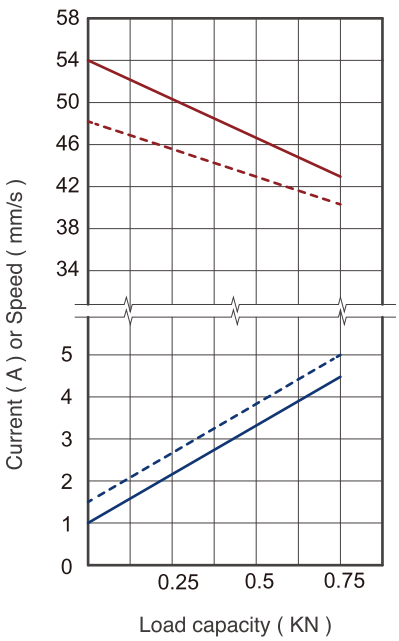
Characteristic Curve

Typical speed
Min. speed
Typical current
Max. current

750-24V



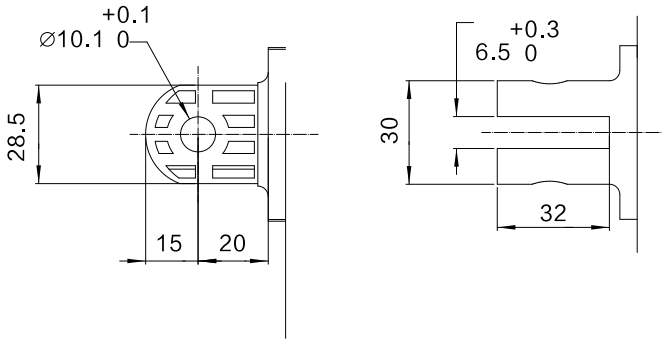
750-29V



Ordering Details

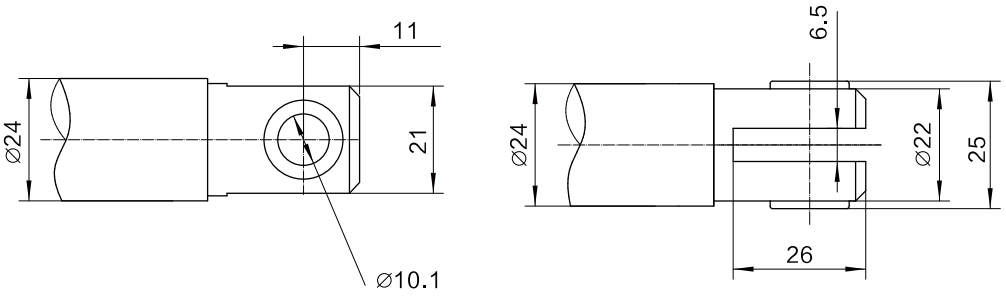
End clevis specification

D: slot 6.5, depth 32, ϕ 10.1

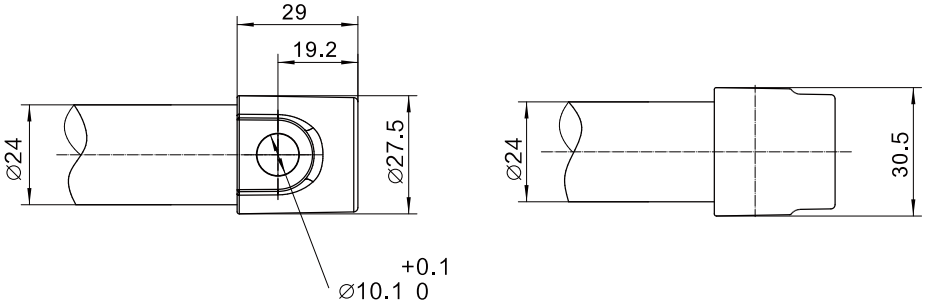


Front clevis specification

F05= slot 6.5, depth 26, ϕ 10.1 with plastic bushing



F08=ϕ10.1 with black plastic bushing
F09=ϕ10.1 with gray plastic bushing



Ordering Key

Take **JC35D106324100/275HGDZF052022D0** as an example

Model	**JC35D1**	
Optional features	**X**	P= Only push / S=Safety nut Y= Hall sensor PY=Hall sensor+ only push
Load in push	**X**	6=6000N 1D5=1500N 1=1000N
Speed at full load	**X**	20=20mm/s 5D7=5.7mm/s 4D5=4.5mm/s
Input voltage	**XX**	12=12VDC / 24=24VDC / 29=29VDC
Stroke length/ Installation dimension	**XXX/XXX**	Stroke length = XXX Installation dimensions = XXX
Clevis directions	**X**	H=horizontal V=vertical (to motor direction)
Colour	**X**	G = Gray / B = Black
End clevis specification	**X**	D=slot 6.5, depth 32, hole diameter 10.1
End clevis material	**X**	Z=zinc aluminum alloy tail pull
Front clevis specification	**XX**	F05= slot 6.5, depth 26, ϕ 10.1 with plastic bushing F08=ϕ10.1 with black plastic bushing F09=ϕ10.1 with gray plastic bushing
Brake specification	**X**	0 = No brake / 1 = Brake in pull / 2 = Brake in push
Type of connector and cable	**XX**	02=4 Pin Din connector 10=5 Pin Din connector
Cable length	**XXX**	2D0 = 2m / 0D5 = 0.5m

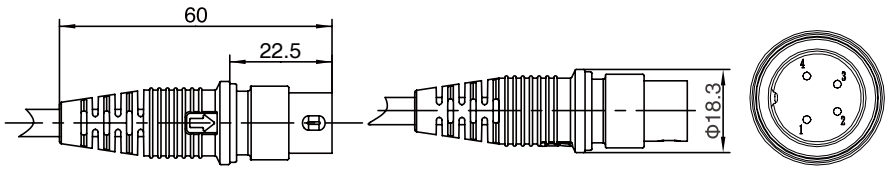
Motor cable

4 Pin Din connector (standard)

Supporting control box :
JCB35Q / JCB35T / JCB35R / JCB35R1 / JCB35S

Pin	Color	Function
1	NC	Not connected
2	Brown	power with positive voltage, actuator going down
3	Blue	power with positive voltage, actuator going up
4	NC	Not connected
Outer Circle	NC	Not connected



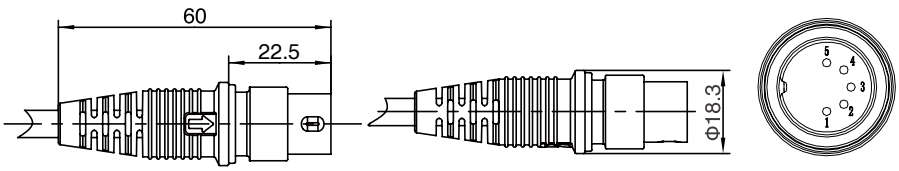


5 Pin Din connector (with Hall sensors)

Supporting control box :
JCB35Q / JCB35T / JCB35R / JCB35R1 / JCB35S

Pin	Color	Function
1	Red	5V
2	Brown	power with positive voltage, actuator going down
3	Black	GND
4	Blue	power with positive voltage, actuator going up
5	Yellow	Hall sensor signal 1
Outer Circle	Orange	Hall sensor signal 2





Strictly abiding by medical safety certifications

Passed EMC tests. To ensure our products pass all kinds of tests domestic or abroad.

Communication protocol development

Aiming at different applications, develop more extensive functions for control system.

Professional customization

Powerful R&D strength, fully satisfy customers' needs. Development cycle is about 10 days, seizing more market opportunities

Intelligent Control of Bluetooth

Mobile phone as the remote, applying in home care. Market pioneer, Jiecang provides better choices

Wireless Communication

Controllers adopt high-frequency wireless system. It can avoid interference mixing with signal receivers, assisting in remote control over medical equipment.

Latest Weighing System

Designed for physiotherapy beds and medical care beds. Cantilever carrying weighing sensor, it is applicable to different bedsteads dispensing with any adjustment

Disclaimer and Exclusion of Liability

Notes for mounting and usage can be found in the corresponding mounting manual