

SMART MANUFACTURING & CUSTOMIZED SOLUTIONS



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Powernice Intelligent Technology Co., Ltd



China's Leading Intelligent Manufacturer Of Linear Actuators

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Injecting Momentum into Life, Creating More Possibilities

Unlock the Power of Movement,
Seek Smarter Ways,
Powernice Provides More Solutions for You.



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China's Leading Intelligent Manufacturer Of Linear Actuators

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Part 1

INTELLIGENT ACTUATOR

Service as Our Core Foundation
Surviving Through Quality
Advancing Through Innovation



China's Leading Intelligent Manufacturer Of Linear Actuators

Powernice is an innovative enterprise specializing in the research and development of technology that integrates the research, design, production, sales, and service of industrial-grade high-precision intelligent actuators and dampers. The company's products are used in fields such as photovoltaic and solar thermal power generation, medical equipment, intelligent equipment, new energy logistics vehicles, and robots.

Powernice originated in 2002, when several young people introduced advanced electromechanical product technology concepts from around the world to China and began to develop intelligent actuator products. Powernice was officially established in 2018. After receiving investment from Shanghai Jiupu/CNAL/ Ningbo Government Funds in 2021, the company's headquarters was moved to Ningbo, and Ningbo Powernice Intelligent Technology Co., Ltd. was established.

Powernice now has a production, research and development, and office area of 27,000 square meters in the Shenzhen Special Economic Zone in China, establishing a global sales center. It has set up overseas factories in Vietnam, a subsidiary in Las Vegas in the United States, and an office in Italy to better serve global customers.

Powernice has comprehensive research and development, experimental, testing, and production facilities and equipment in the industry. Powernice advocates intelligent manufacturing and customizes solutions for each customer. From research and development design, sample trial production, material control, batch production, after-sales service, iterative upgrades, etc., it always accompanies customers to grow and prosper.

Development History



Not Simply Better Quality

Powernice's confidence is due to our continuous investment in product research and development and production capacity,

the layout of the industrial intelligent manufacturing base in Ningbo, Zhejiang, China, Southeast Asia and Vietnam,

and basically realized the leading China in the field of intelligent linear actuator in the photovoltaic industry.



Ningbo Headquarters Base

The Production Capacity Of 1.5 Million Units Is Planned

600,000 Photovoltaic Units

200,000 Units in Solar Thermal Sector

100,000 Units in New Energy Vehicle Sector

100,000 Units in Smart Healthcare Sector

500,000 Dampers

Vietnam Production Base

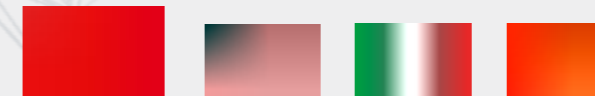
Planned Production Capacity of 620,000 Units

120,000 Photovoltaic Units

500,000 Dampers

Global branches and marketing network bring our service further with you

Distributed in Chinese mainland, North America-Las Vegas, Europe-Italy, Vietnam branches and many service outlets, to ensure the follow-up service without worries.



Shenzhen Global Marketing Center

- Marketing Department
- Sales Department
- Project Department
- After-Sales Department
- Planning Department
- Finance Department
- Pre-Sales Engineering Department

Other Service Outlets

- Suzhou
- Hubei
- North America-Las Vegas
- Europe-Italy



PRIMARY ADVANTAGES

Pursue Maximum Efficiency
Pursue The Highest Quality

Based In China
Serve The World

Powernice has a series of professional and customized inspection and testing equipment, and the technical research and development team has many years of industry experience. Powernice is constantly pursuing a perfect quality management system and has passed ISO9001 quality management system certification to provide high-quality products to different customers.

The eternal sun makes us realize the infinite possibilities of green energy.

How to improve the performance and stability of the tracker and how to reduce the cost of electricity is our constant pursuit. Do everything possible to explore and innovate in technology, and work with customers to express our sincerity to nature.

Powernice

Advantages of Powernice Intelligent Linear Actuator

Linear motion is mainly divided into: electric linear motion, hydraulic linear motion, and pneumatic linear motion.

- 1** Powernice intelligent linear actuator are integrated into one, the performance is far superior to the traditional hydraulic system and pneumatic system.
- 2** Value for money, efficient use, almost zero maintenance required, will be your biggest cost savings.
- 3** Compact design, convenient installation, eliminating the shortage of applications such as pumps and hoses.
- 4** Our positioning feedback is accurate, Powernice intelligent linear actuator and control system docking accurately in place.
- 5** Powernice intelligent linear actuator have low energy consumption and no risk of harmful hydraulic oil leakage, and truly achieve low carbon environmental protection.

→ The Benefits Of Using Pownice Intelligent Linear Actuators

- 1
 - a Providing a variety of digital and analog feedback options
 - b Using fixed and programmable limit switches for "teaching and repeating" positioning
 - c Using low-voltage switch options that can directly connect to programmable PC/PLC controllers
 - d Incorporating pulse width modulation for speed control
- 2 Provide excellent precision and repeatability.
- 3 Allow for automatic connection and synchronization of the process.
- 4 Improve safety and reduce costs by enabling convenient remote control, keeping workers away from dangerous sites.

BENEFITS

The Benefits Of Using Pownice Intelligent Linear Actuators

Cost Reduction ←

- 1 1.The cost of the intelligent linear actuator components is lower than that of hydraulic and pneumatic systems with the same functionality.
- 2 2.Installing an intelligent linear actuator is faster and more convenient than installing multiple hydraulic and pneumatic components when achieving the same function.
- 3 3.The commissioning of intelligent linear actuators is faster and more predictable than configuring the hydraulic system and its components due to power variation, temperature variation, and nonlinear performance curves.
- 4 4.The intelligent linear actuator is maintenance-free, and there is no need for fluid replacement in comparison to hydraulic systems, which require fluid replacement, leak repair, and other routine maintenance.
- 5 5.The use of intelligent linear actuators avoids environmental issues and costs related to hydraulic fluid leakage and fluid handling.

Example: Photovoltaic Field

Advantages Of Intelligent Linear Actuators:

Tracker Type	Dynamic load	Static Load	Weight	Install	Shelf Life	Price (Base 1)
Swing Mechanism	6.5KN.m	38KN.m	55Kg	3Manual	5 years	1
Pownice Tracker	20KN	150KN	20Kg	2Manual	5 years	0.5

- The structure with triangular support is the most efficient design in mechanics
- Lower cost
- Does not occupy any component space
- Easy replacement, can be done quickly by two workers
- No need for regular oiling, long-term maintenance cost is lower

Disadvantages:

- It is a relatively new technology, and the acceptance of mainstream manufacturers around the world still requires a process
- The quality of small businesses varies, which can easily affect the industry's reputation and the procurement willingness of user businesses that use them in large quantities

Advantages Of Rotary Mechanisms:

- Simple structure
 - Accepted by mainstream
- Disadvantages:
- After installation, it will occupy some component and available electricity space
 - When repairing or replacing, the entire row of photovoltaic panels needs to be shut down and dismantled, which takes a long time
 - Uses more raw materials, higher manufacturing costs
 - As the size and weight of photovoltaic components increase, the torque demand becomes greater, and it is easier to cause steel tube deformation, leading to spindle twisting damage and tracking support structure failure due to "bending stress" and "non-linear contact stress".



Part 3

PRODUCT INTRODUCTION

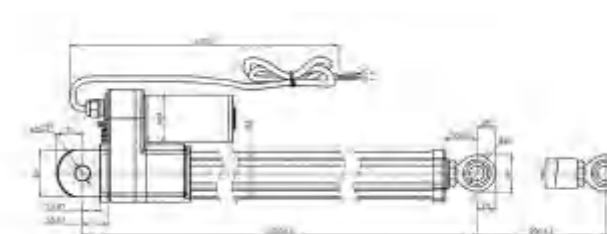
Promote the upgrade of photovoltaic tracking technology
Achieve more efficient green energy

The intelligent linear actuator can be used in a photovoltaic solar panel/reflector tracking system with a controller to push the bracket mechanism to keep the panel always perpendicular to the sun.

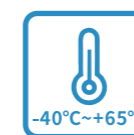
Photovoltaic Series

- PA7
- PA8 PA8S
- PA9 PA16
- PA11 PA13
- PA14 PA15
- PA30 PA31
- PA45 PT7
- PT8 PT8K
- PA37 PA25S

PA7



Protection level



Temperature



Salt spray



Fixed and adjustable



Higher safety factor



More stable performance



More cost-effective

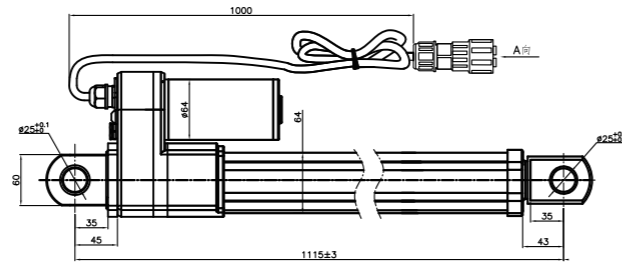


Intelligent equipment

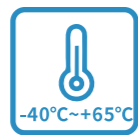
Technical Parameter

Voltage(V)	24 DC	Installation Distance (mm)	1250±3(Customizable)
Rated Load(N)	15000	Front Connector(mm)	φ 20
Static Load (Stroke 0-450mm) (N)	40000	End Connector (mm)	φ 20
Static Load (Stroke 451-900mm) (N)	25000	IP Code	IP66
Air Cutting Current (A)	1	Signal Type	Double Hall
Load Current (A)	4	Motor Wire	14AWG*2C
Full Load Speed (mm/s)	1.5 ±10% (Customizable)	Built-in Limit Switch	Yes
No-Load Speed (mm/s)	17.±10% (Customizable)	Connector	Bare Wire Dip In Tin
Working Temperature (°C)	-40°C ~ +65°C	Color	Black+Silver
Stroke (mm)	900±3 (Customizable)		

PA8



Protection level



Temperature



Salt spray



Single point tracking / Electrical linkage



Higher safety factor



More stable performance



More cost-effective



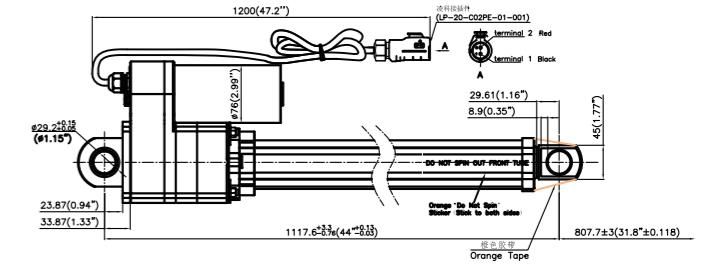
Intelligent equipment



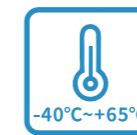
Technical Parameter

Voltage(V)	24DC	Stroke (mm)	100~1200 (Customizable)
Power(W)	156	Installation Distance (mm)	≥ 310+ Stroke(Customizable)
Specified Load(N)	20000	IP Code	IP66
Maximum Load(N)	35000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	70000	The Highest Altitude (m)	3500
No-load Current (A)	≤1.2	Noise Level(dBA)	85
Rated Load Speed (mm/s)	1.3±10% (Customizable)	Rated Load Pull Current (A)	≤6.0
No-load Speed (mm/s)	1.7±10% (Customizable)	Rated Load Thrust Current (A)	≤6.5
Working Temperature (°C)	-40°C~ +65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PA8S



Protection level



Temperature



Salt spray



Single point tracking / Electrical linkage



Higher safety factor



More stable performance



More cost-effective



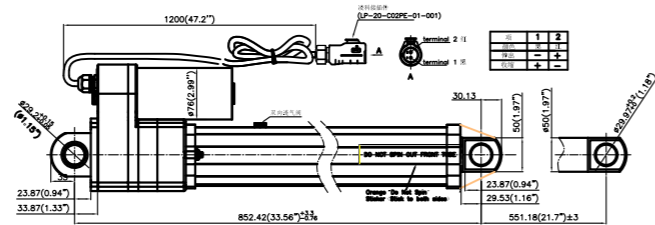
Intelligent equipment



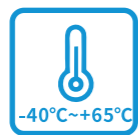
Technical Parameter

Voltage(V)	24 DC	Stroke (mm)	100~1200 (Customizable)
Power(W)	180	Installation Distance (mm)	≥ 310+ Stroke(Customizable)
Specified Load(N)	25000	IP Code	IP66
Maximum Load(N)	40000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	70000	The Highest Altitude (m)	3500
No-load Current (A)	≤1.5	Noise Level(dBA)	85
Rated Load Speed (mm/s)	1.25±10% (Customizable)	Rated Load Pull Current (A)	≤7.2
No-load Speed (mm/s)	1.54±10% (Customizable)	Rated Load Thrust Current (A)	≤7.6
Working Temperature (°C)	-40°C~ +65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PA9



Protection level



-40°C~+65°C



800H



Single point tracking / Electrical linkage



Higher safety factor



More stable performance



More cost-effective

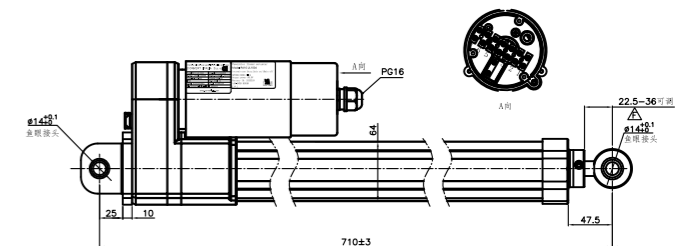


Intelligent equipment

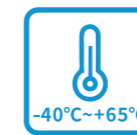
Technical Parameter

Voltage(V)	24DC	Stroke (mm)	150~1200 (Customizable)
Power(W)	220	Installation Distance (mm)	≥ 301+Stroke(Customizable)
Specified Load(N)	31000	IP Code	IP66
Maximum Load(N)	50000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	110000	The Highest Altitude (m)	3500
No-load Current (A)	≤1.8	Noise Level(dBA)	85
Rated Load Speed (mm/s)	1.2±10% (Customizable)	Rated Load Pull Current (A)	≤9
No-load Speed (mm/s)	1.54±10%(Customizable)	Rated Load Thrust Current (A)	≤9.2
Working Temperature (°C)	-40°C~ +65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PA16



Protection level



-40°C~+65°C



800H



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

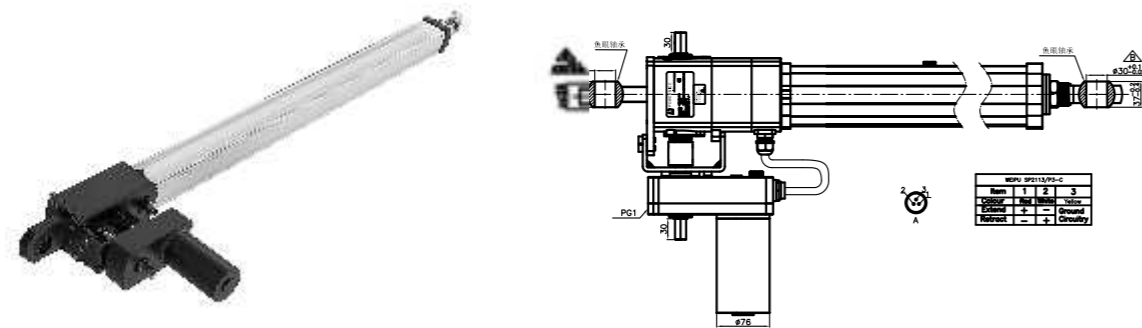


Intelligent equipment

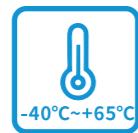
Technical Parameter

Voltage(V)	230 AC	Stroke (mm)	100~1200 (Customizable)
Power(W)	230	Installation Distance (mm)	≥ 300+Stroke(Customizable)
Specified Load(N)	15000	IP Code	IP66
Maximum Load(N)	15000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	78000	The Highest Altitude (m)	3500
No-load Current (A)	≤0.75	Noise Level(dBA)	85
Rated Load Speed (mm/s)	1.75±10% (Customizable)	Rated Load Pull Current (A)	≤1.1
No-load Speed (mm/s)	2.1±10% (Customizable)	Rated Load Thrust Current (A)	≤1.2
Working Temperature (°C)	-40°C~ +65°C	Built-in Limit Switch	Yes
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PA11



Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

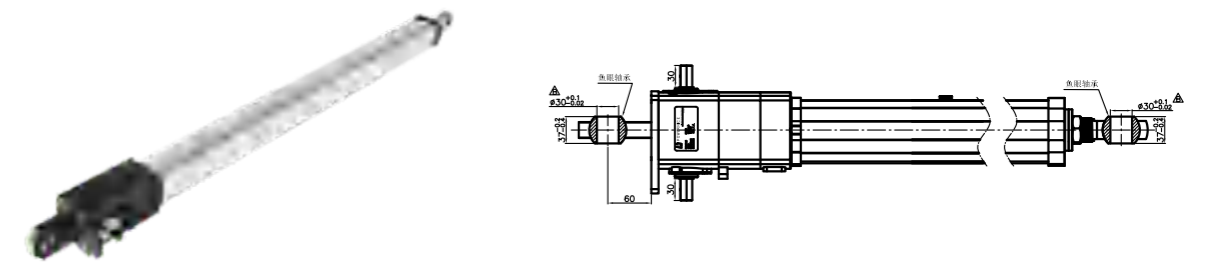


Intelligent equipment

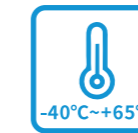
Technical Parameter

Voltage(V)	24DC	Stroke (mm)	150~1200 (Customizable)
Power(W)	120	Installation Distance (mm)	≥472+ Stroke(Customizable)
Specified Load(N)	20800	IP Code	IP66
Maximum Load(N)	51000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	132800	The Highest Altitude (m)	3500
No-load Current (A)	≤1.2	Noise Level(dBA)	85
Rated Load Speed (mm/s)	0.65±10% (Customizable)	Rated Load Pull Current (A)	≤4.5
No-load Speed (mm/s)	0.73±10% (Customizable)	Rated Load Thrust Current (A)	≤5.0
Working Temperature (°C)	-40°C~+65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PA13



Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

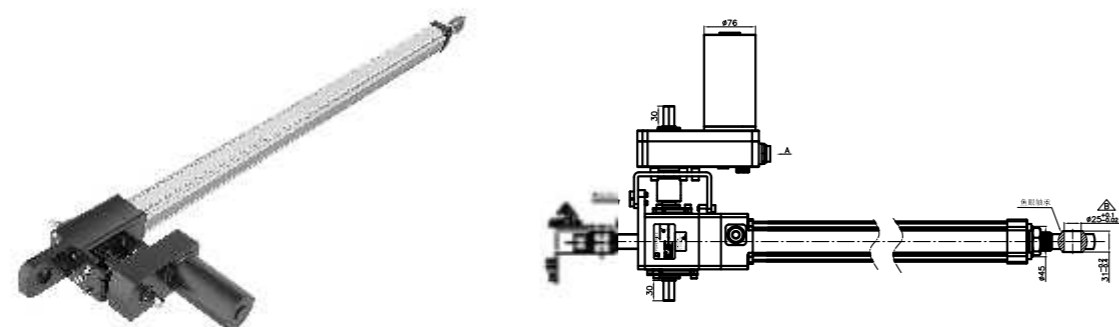


Intelligent equipment

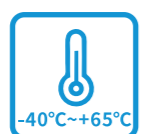
Technical Parameter

Specified Load (N)	20800	Installation Distance (mm)	≥472+ Stroke (Customizable)
Maximum Load(N)	51000	IP Code	IP66
Half Stroke Static Load (Varies According To Stroke)(N)	132800	Corrosion Category(ISO12944-2)	C3-15Years
No-load Speed (mm/r)	3.175 (Customizable)	The Highest Altitude (m)	3500
Working Temperature (°C)	-40°C~+65°C	Noise Level(dBA)	85
Working Relative Humidity (%)	<85%	Built-in Limit Switch	No
Stroke (mm)	150~1200 (Customizable)		

PA14



Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

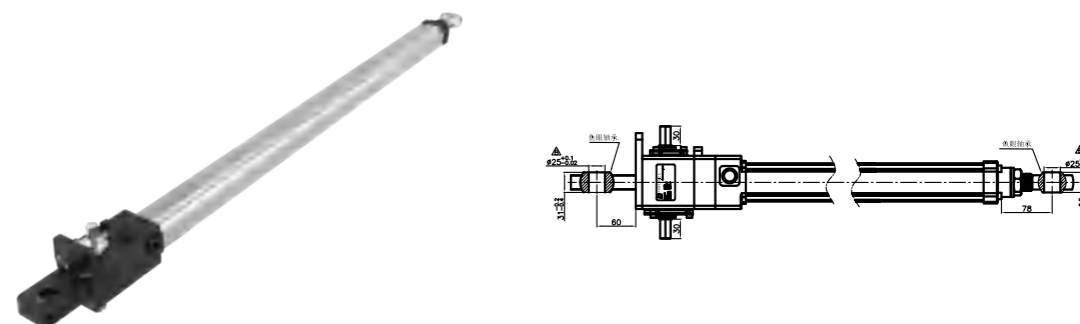


Intelligent equipment

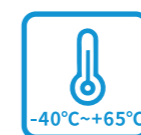
Technical Parameter

Voltage(V)	24 DC	Stroke (mm)	150~1200 (Customizable)
Power(W)	110	Installation Distance (mm)	≥472+Stroke(Customizable)
Specified Load(N)	20400	IP Code	IP66
Maximum Load(N)	46000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	70000	The Highest Altitude (m)	3500
No-load Current (A)	≤1.2	Noise Level(dBA)	85
Rated Load Speed (mm/s)	0.65±10% (Customizable)	Rated Load Pull Current (A)	≤4.0
No-load Speed (mm/s)	0.73±10% (Customizable)	Rated Load Thrust Current (A)	≤4.5
Working Temperature (°C)	-40°C~ +65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PA15



Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

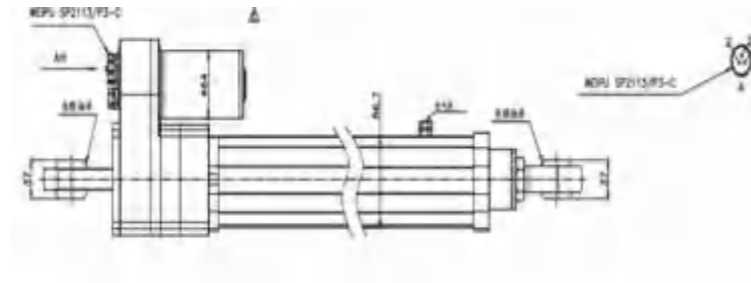


Intelligent equipment

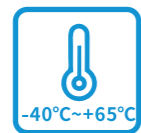
Technical Parameter

Specified Load (N)	20400	Installation Distance (mm)	≥472+Stroke(Customizable)
Maximum Load(N)	46000	IP Code	IP66
Half Stroke Static Load (Varies According To Stroke)(N)	70000	Corrosion Category(ISO12944-2)	C3-15Years
No-load Speed (mm/r)	3.175 (Customizable)	The Highest Altitude (m)	3500
Working Temperature (°C)	-40°C~ +65°C	Noise Level(dBA)	85
Working Relative Humidity (%)	<85%	Built-in Limit Switch	No
Stroke (mm)	150~1200 (Customizable)		

PA30



Protection level



Temperature



Salt spray



Single point tracking / Electrical linkage



Higher safety factor



More stable performance



More cost-effective



Intelligent equipment

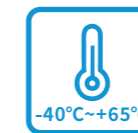
Technical Parameter

Voltage(V)	24 DC	Stroke (mm)	1039±3 (Customizable)
Specified Load(N)	12750-30000	Installation Distance (mm)	1496±3 (Customizable)
Maximum Load(N)	49000	IP Code	IP66
Half Stroke Static Load (Varies According To Stroke)(N)	130000	Corrosion Category(ISO12944-2)	C3-15 Years
No-load Current (A)	≤0.7	The Highest Altitude (m)	3500
Rated Load Speed (mm/s)	0.65±10% (Customizable)	Noise Level(dBA)	80
No-load Speed (mm/s)	0.73±10% (Customizable)	Rated Load Pull Current (A)	≤2.5
Working Temperature (°C)	-40°C~+65°C	Built-in Limit Switch	Yes
Working Relative Humidity (%)	< 90	Connector	WEIPU SP2113/P3-C

PA31



Protection level



Temperature



Salt spray



Single point tracking / Electrical linkage



Higher safety factor



More stable performance



More cost-effective

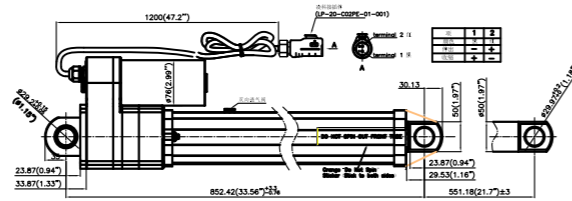


Intelligent equipment

Technical Parameter

Voltage(V)	24 DC	Stroke (mm)	1039±3 (Customizable)
Specified Load(N)	10000-20000	Installation Distance (mm)	1496±3 (Customizable)
Maximum Load(N)	23500	IP Code	IP66
Half Stroke Static Load (Varies According To Stroke)(N)	30000	Corrosion Category(ISO12944-2)	C3-15 Years
No-load Current (A)	≤0.5	The Highest Altitude (m)	3500
Rated Load Speed (mm/s)	0.69±10% (Customizable)	Noise Level(dBA)	80
No-load Speed (mm/s)	0.83±10% (Customizable)	Rated Load Pull Current (A)	≤3.2
Working Temperature (°C)	-40°C~+65°C	Built-in Limit Switch	Yes
Working Relative Humidity (%)	< 90	Connector	WEIPU SP2113/P3-C

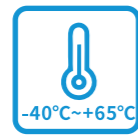
PA45



PT7



Protection level



Temperature



Salt spray



Single point tracking / Electrical linkage



Higher safety factor



More stable performance



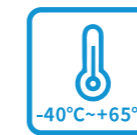
More cost-effective



Intelligent equipment



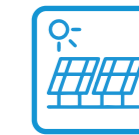
Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective



Intelligent equipment

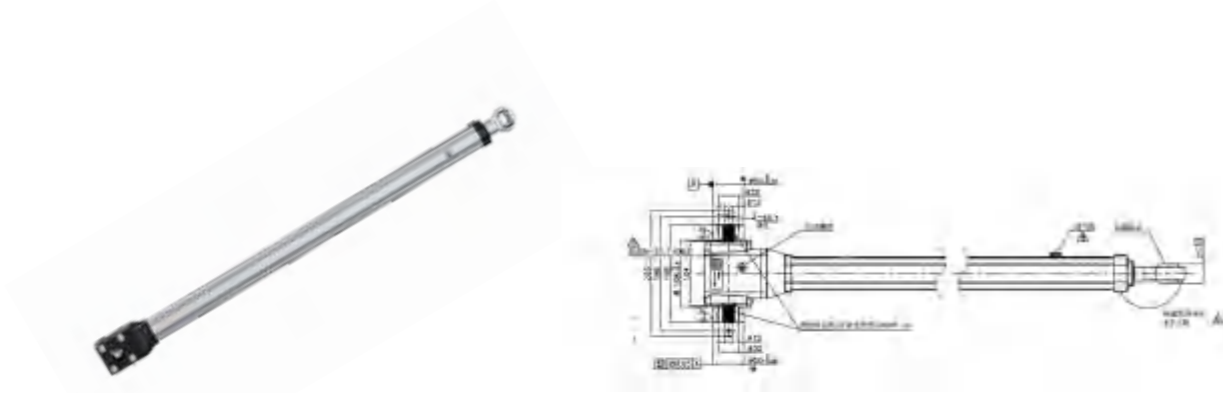
Technical Parameter

Voltage(V)	24DC	Stroke (mm)	150~1200 (Customizable)
Power(W)	220	Installation Distance (mm)	≥ 301+ Stroke(Customizable)
Specified Load(N)	31000	IP Code	IP66
Maximum Load(N)	50000	Corrosion Category(ISO12944-2)	C3-15Years
Half Stroke Static Load (Varies According To Stroke)(N)	110000	The Highest Altitude (m)	3500
No-load Current (A)	≤1.8	Noise Level(dBA)	85
Rated Load Speed (mm/s)	1.2±10% (Customizable)	Rated Load Pull Current (A)	≤9
No-load Speed (mm/s)	1.54±10%(Customizable)	Rated Load Thrust Current (A)	≤9.2
Working Temperature (°C)	-40°C~ +65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	<85%	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

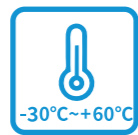
Technical Parameter

Specified Load (N)	20000	Installation Distance (mm)	≥ 330+ Stroke(Customizable)
Maximum Load(N)	40000	IP Code	IP66
Half Stroke Static Load (Varies According To Stroke)(N)	60000	Corrosion Category(ISO12944-2)	C3-15Years
No-load Speed (mm/r)	3.175/4	The Highest Altitude (m)	3500
Working Temperature (°C)	-40°C~ +65°C (Customizable)	Noise Level(dBA)	85
Working Relative Humidity (%)	<85%	Built-in Limit Switch	(Customizable)
Stroke (mm)	100~1200 (Customizable)	Connector	Lingke/Weipu/Bare Wire Dip Tin etc.

PT8



Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

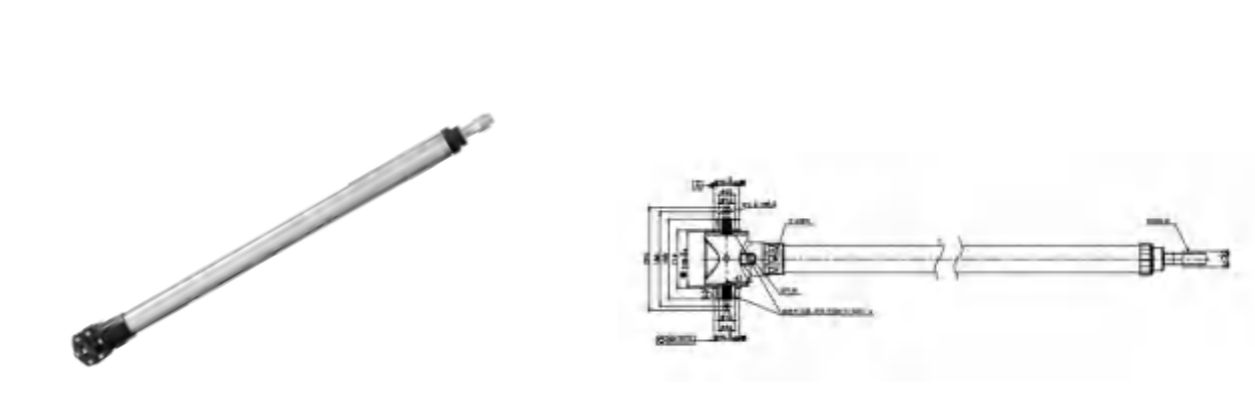


Intelligent equipment

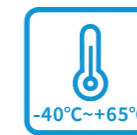
Technical Parameter

Maximum Static Load (Installation Distance 1600) (N)	250000	Rated Load Torque (N.m)	< 30(Load 7500N)
Maximum Dynamic load (N)	215700	No-Load Starting Torque (N.m)	≤ 1.5
Rated Dynamic load (N)	7500	IP Code	IP66
Stroke (mm)	820 ⁺²⁰ ₊₀ (Customizable)	Operating Environment (°C)	-30°C ~ +60°C
Maximum Folded Length L1	1180 ⁺⁰ ₋₁₀	Whole Machine Neutral Salt Spray Test (H)	> 480
Maximum Folded Length L2	1195 ⁺⁰ ₀		
Speed (mm/r)	5 (Customizable)		

PT8K



Protection level



Temperature



Salt spray



Multipoint mechanical linkage



Higher safety factor



More stable performance



More cost-effective

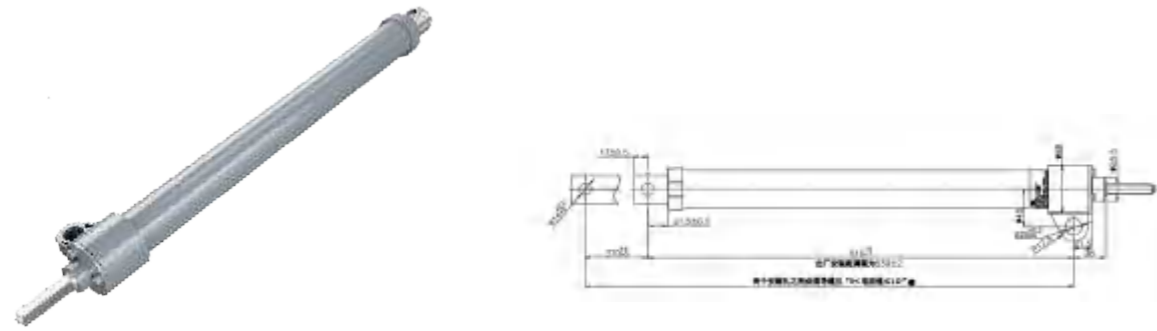


Intelligent equipment

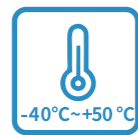
Technical Parameter

Maximum Static Load (Installation Distance 1600) (N)	250000	Rated Load Torque (N.m)	< 30(Load 7500N)
Maximum Dynamic load (N)	215700	No-Load Starting Torque (N.m)	≤ 1.5
Rated Dynamic load (N)	7500	IP Code	IP66
Stroke (mm)	820 ⁺²⁰ ₊₀ (Customizable)	Operating Environment (°C)	-30°C ~ +60°C
Maximum Folded Length L1	1180 ⁺⁰ ₋₁₀	Whole Machine Neutral Salt Spray Test (H)	> 480
Maximum Folded Length L2	1195 ⁺⁰ ₀		Internal Structure With Rotating Mechanism
Speed (mm/r)	5 (Customizable)		

PA37



Protection level



Temperature



Salt spray



Fixed and adjustable



Higher safety factor



More stable performance



More cost-effective

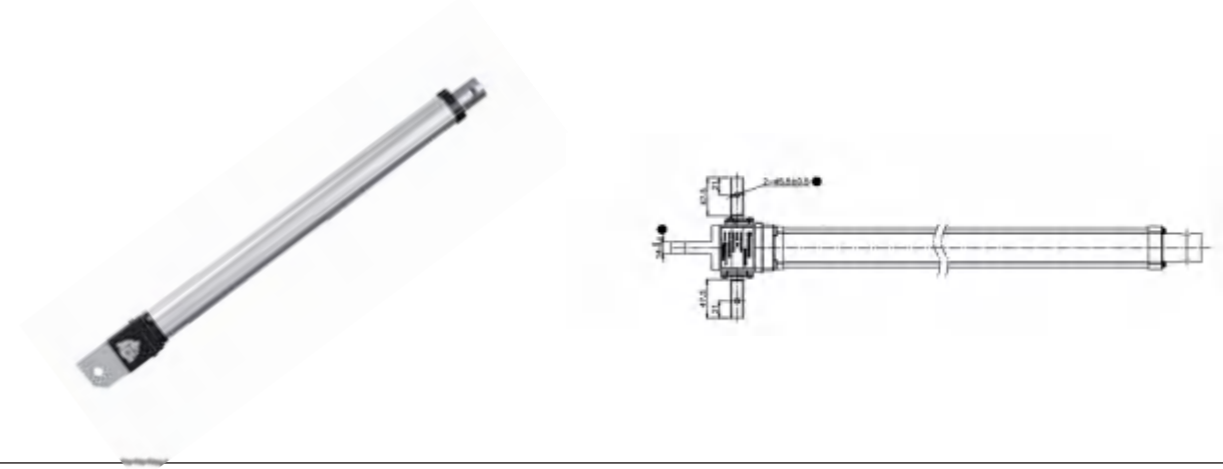


Intelligent equipment

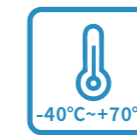
Technical Parameter

Maximum Static Load (0~370mm)	15000	IP Code	IP65
Maximum Dynamic load (N)	3000	Operating Environment	-40°C ~ +50°C
Stroke (mm)	370 ⁺⁵ / ₀ (Customizable)	Whole Machine Neutral Salt Spray Requirement	Whole Machine 240H
Installation Size (mm)	530±2 (Customizable)	Front Connector Aperture (mm)	Φ14
Speed (mm/r)	4 (Customizable)	Tail Connector Aperture(mm)	Φ20
Input Torque	9.0N.m(3000N)		

PA25S



Protection level



Temperature



Salt spray



Fixed and adjustable



Higher safety factor



More stable performance



More cost-effective



Intelligent equipment

Technical Parameter

Static Load (N)	30000	Speed (mm/r)	2.38 (Customizable)
Maximum Dynamic Load (N)	5000	Input Force (N.m)	Below 12 (500kg)
Stroke (mm)	400 ⁺¹⁰ / ₀ (Customizable)	IP Code	IP65
Installation Distance (mm)	660 ⁺⁰ / ₋₁₀ (Customizable)	Operating Environment (°C)	-40°C ~ +70°C

PRODUCT INTRODUCTIONS

Pursue Maximum Efficiency
 Pursue The Highest Quality
 Based In China
 Serve The World

Photothermal Series

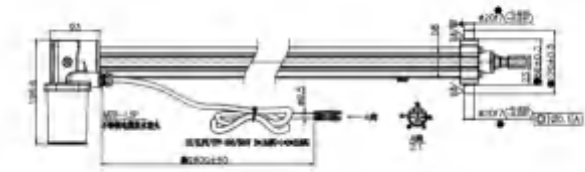
- PN8
- PN9
- PN10

Damper

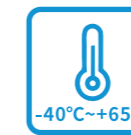
- PZ1
- PZ2
- PZ3
- PZ4
- PZ5
- PZ6

Controller

PN8



Protection level



Temperature



Salt spray



Tower photothermal



Higher safety factor



More stable performance



More cost-effective

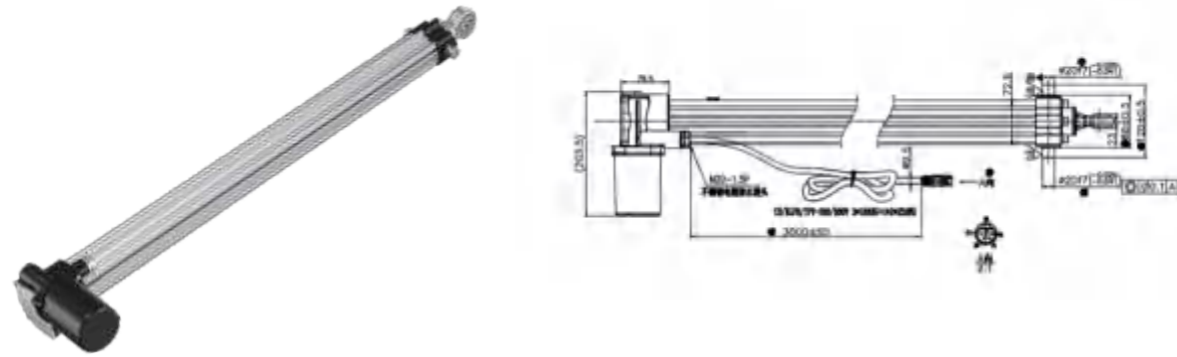


Intelligent equipment

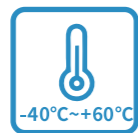
Technical Parameter

Voltage(V)	24 DC	Installation Distance (mm)	≥ 100 (Customizable)
Power(W)	96	IP Code	IP66
Specified Load(N)	850	Corrosion Category(ISO12944-2)	C3-15Years
Maximum Load(N)	2350	The Highest Altitude (m)	3500
No-load Current (A)	≤1	Noise Level(dBA)	≤60
Rated Load Speed (mm/s)	0.88	Rated Load Pull Current (A)	≤3.5
No-load Speed (mm/s)	3.3	Rated Load Thrust Current (A)	≤4.0
Working Temperature (°C)	-40°C~+65°C	Built-in Limit Switch	YES
Working Relative Humidity (%)	5%~65%	Motor Outlet Plug	Tin On Bare Wire, Customizable
Stroke (mm)	200~1000 (Customizable)		

PN9



Protection level



Temperature



Salt spray



Tower photothermal



Higher safety factor



More stable performance



More cost-effective



Intelligent equipment

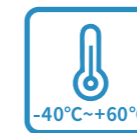
Technical Parameter

Rated Load (N)	778	Voltage (V)	24 DC
Maximum Load (N)	3710	Operating Environment (°C)	-40°C~+60°C
Maximum Static Load (N)	31000	IP Code	IP65
Load Speed of 778KN (mm/s)	≥3.10 (Customizable)	Corrosion Requirements	Neutral Salt Spray Test Minimum 480H Or Above
Load Speed of 2873N (mm/s)	≥0.87 (Customizable)	Noise Level (500mm Distance) (dBA)	≤60
Axial Rigidity Requirement (mm/N)	≤0.25/1500	Built-In Switch	Lower Limit Zero Switch
Axial Lateral Requirement (mm/N)	≤0.30/500		

PN10



Protection level



Temperature



Salt spray



Tower photothermal



Higher safety factor



More stable performance



More cost-effective

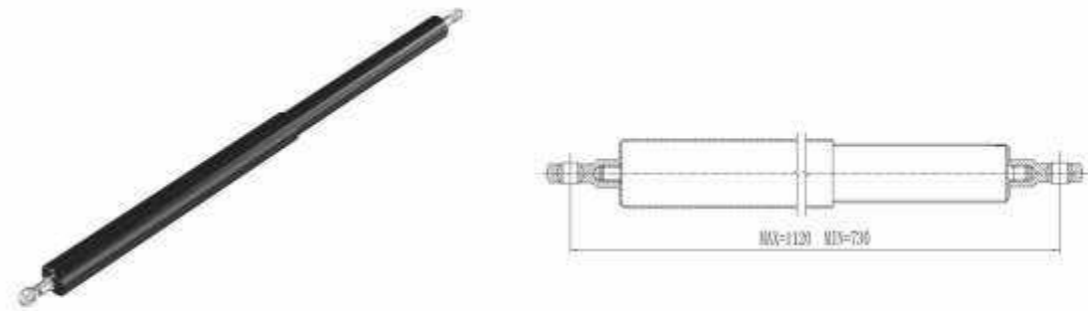


Intelligent equipment

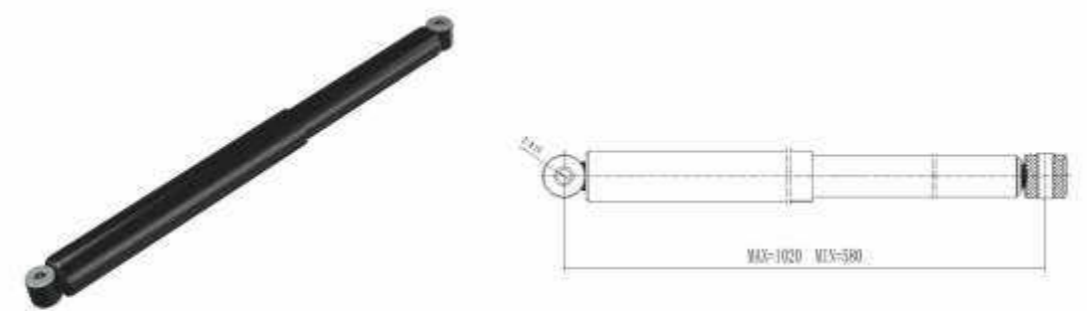
Technical Parameter

Voltage(V)	24DC	Front-End Connector (mm)	φ 25
No-Load Speed(mm/s)	1.65±10%	Rear-End Connector (mm)	φ 25
Rated Load Speed(mm/s)	1.3±10%	Motor Wire	14AWG*3C+20AWG*5C
Stroke(mm)	993.5±2	Main Body Color	Black + Silver
Installation Distance(mm)	335±1	Signal Type	Dual Hall Signal
Rated Load(N)	32000	Limiting Method	Built-In Limit Switch
Maximum Load(N)	46000	IP Code	IP65
Full Stroke Static Load(N)	46000	Operating Temperature(°C)	-30C~+65°C
Half Stroke Static Load(N)	55100	Maximum Altitude (m)	3500
Maximum Half Stroke Static Load(N)	74000	Operating Relative Humidity	<90%
Rated Cutting Current(V)	≤7.5	Anti-Corrosion Rating	C3-15Years(ISO12944-2)

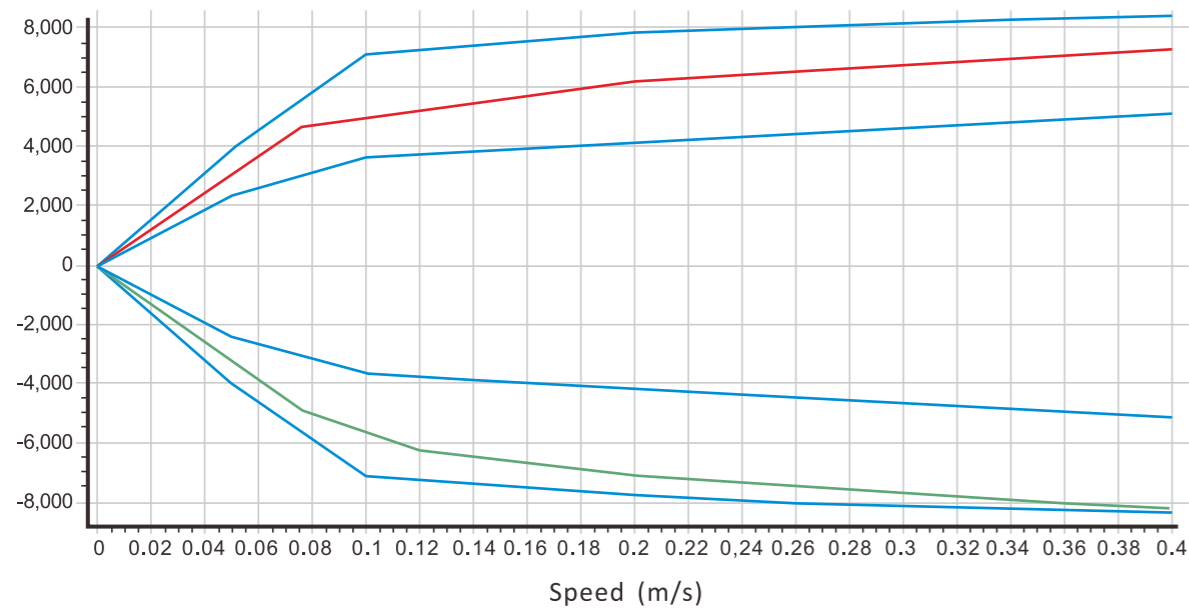
PZ1



PZ2

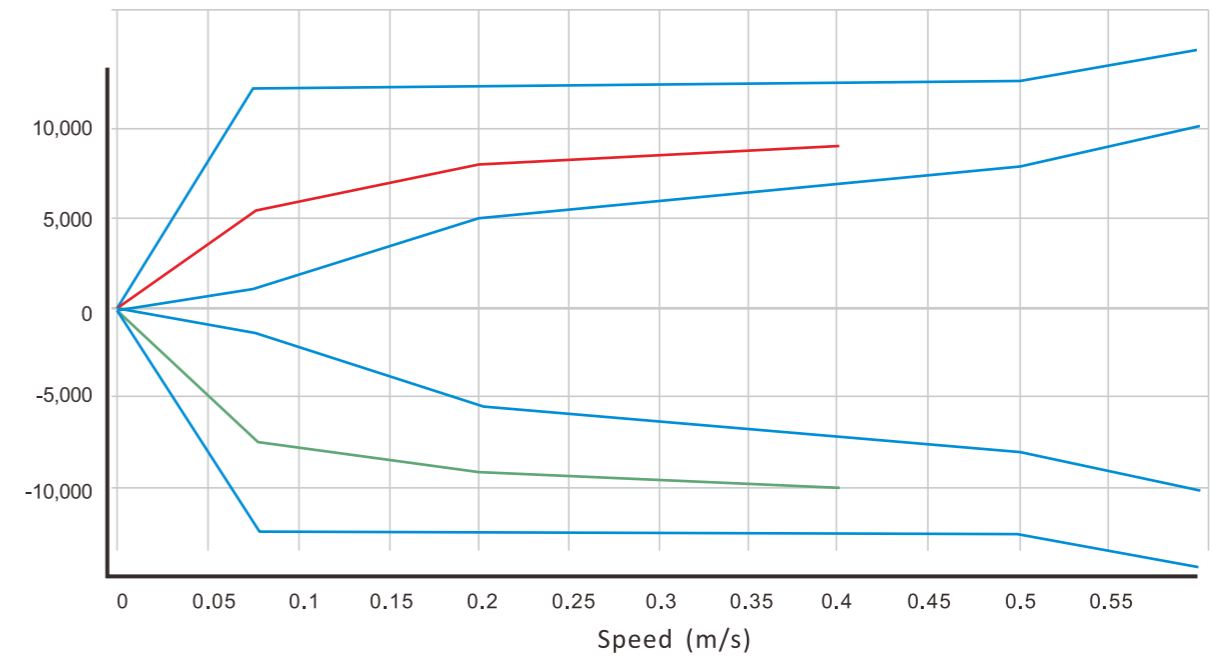


Measured Force-Value Characteristic Curve



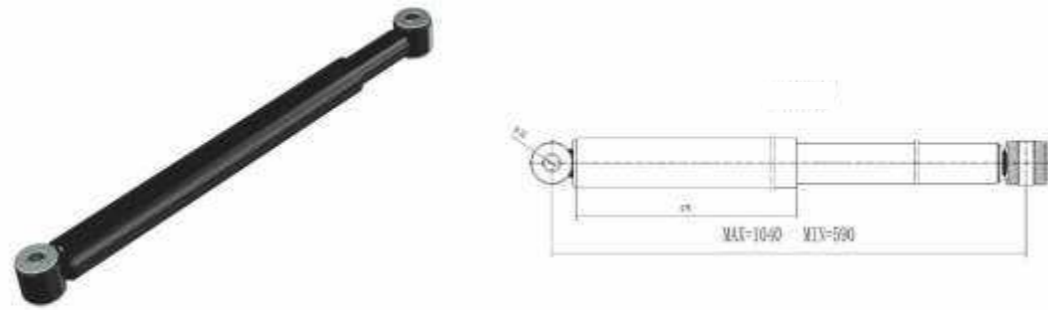
	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	4605	5463	6589	7382	
Maximum Compression Force (N)	5380	6214	7549	8495	
Linear Velocity (m/s)	0.075	0.126	0.201	0.501	

Measured Force-Value Characteristic Curve



	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	5547	8169	9284		
Maximum Compression Force (N)	7445	9204	9939		
Linear Velocity (m/s)	0.076	0.202	0.401		

PZ3

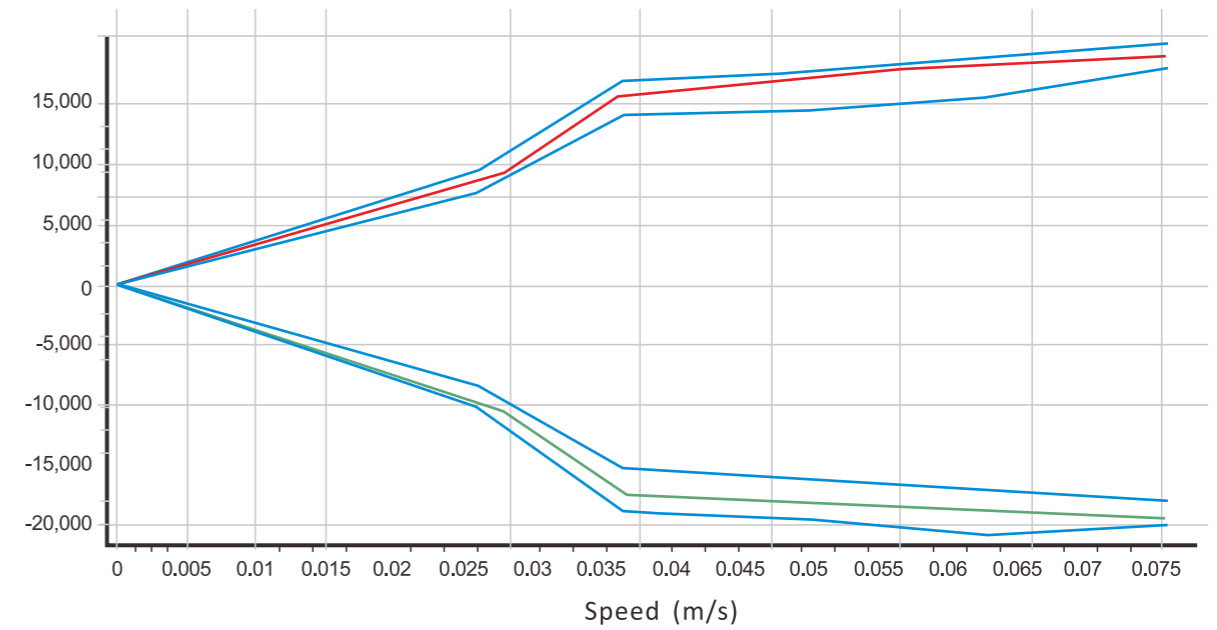
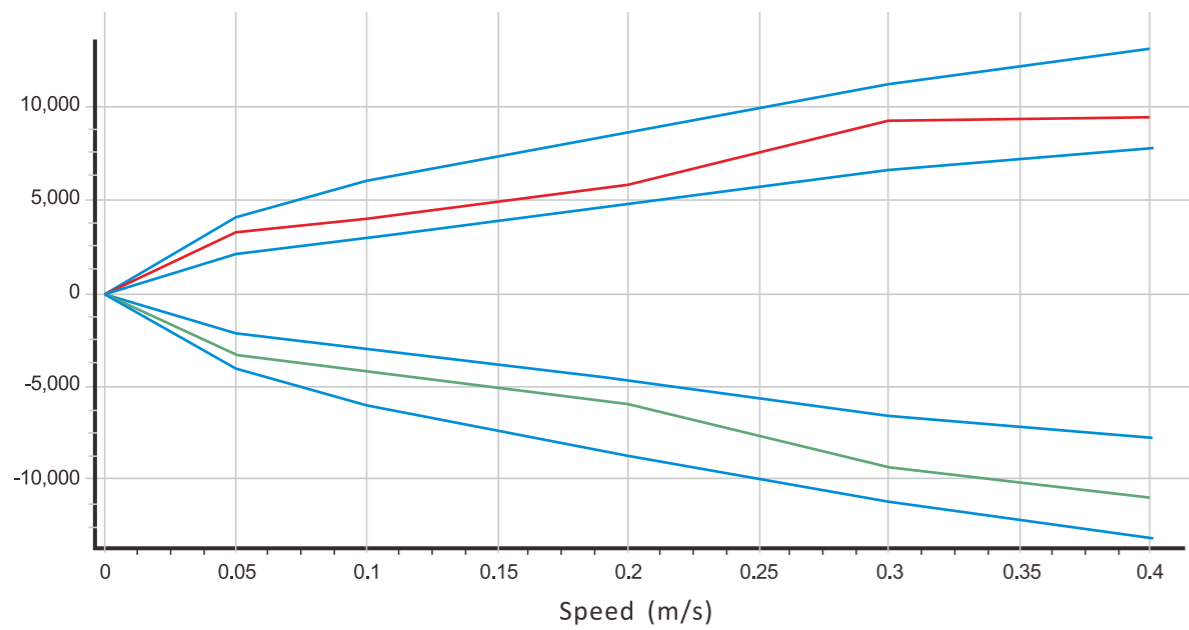


PZ4



Measured Force-Value Characteristic Curve

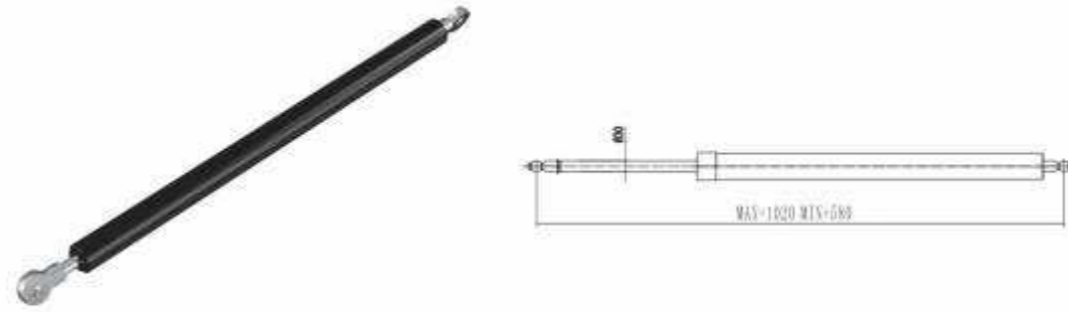
Measured Force-Value Characteristic Curve



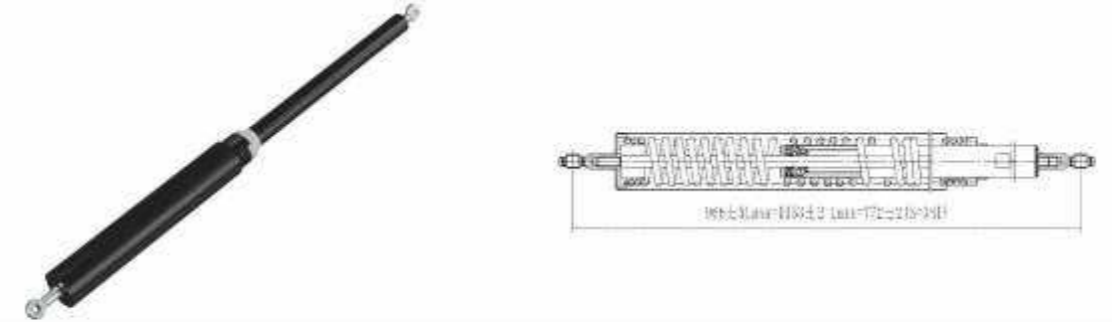
	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	4605	5463	6589	7382	
Maximum Compression Force (N)	5380	6214	7549	8495	
Linear Velocity (m/s)	0.075	0.126	0.201	0.501	

	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	8546	14565	15357	16457	
Maximum Compression Force (N)	10035	15541	16046	17742	
Linear Velocity (m/s)	0.026	0.042	0.047	0.052	

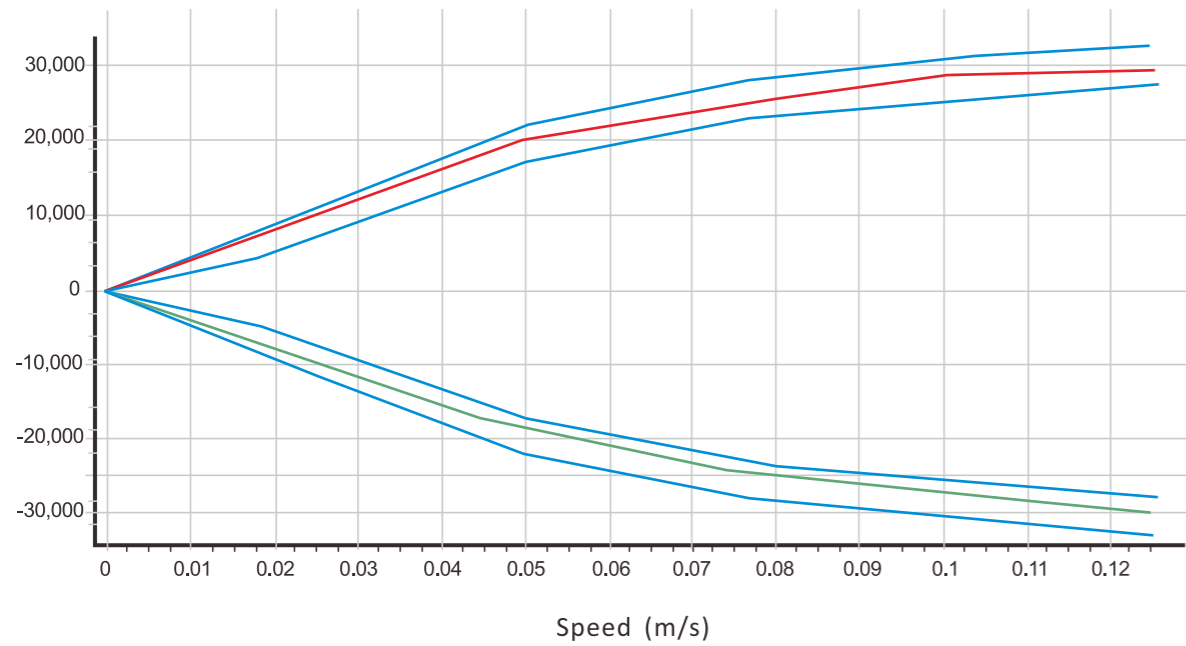
PZ5



PZ6

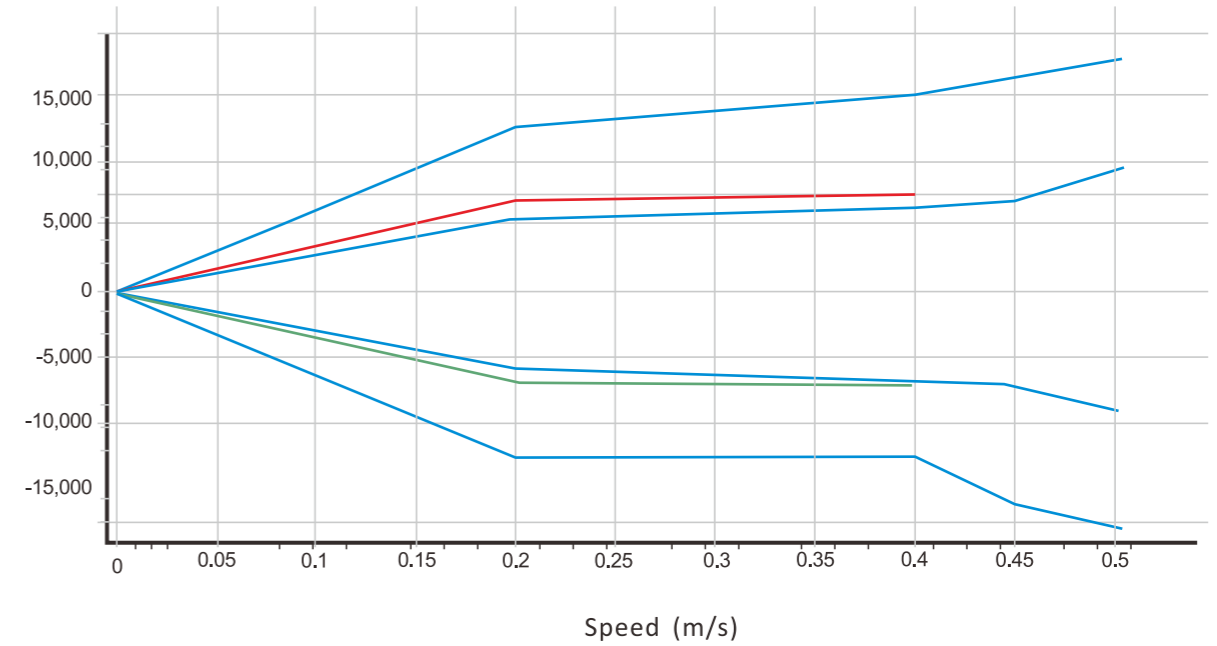


Measured Force-Value Characteristic Curve



	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	10060	20158	25000	28580	29118
Maximum Compression Force (N)	11023	19089	25689	27500	30000
Linear Velocity (m/s)	0.026	0.05	0.102	0.102	0.126

Measured Force-Value Characteristic Curve



	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	6967	7060			
Maximum Compression Force (N)	6997	7055			
Linear Velocity (m/s)	0.202	0.401			

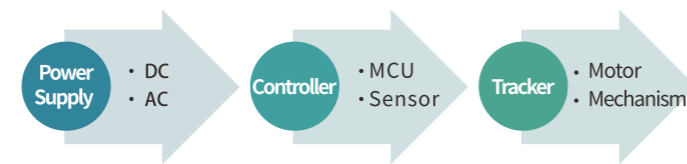
Tracking Controller

► Introduction to Tracking Controller

The tracking controller is a horizontal single-axis dedicated controller used in the solar PV industry. The controller uses the astronomical calendar method to calculate the solar motion trajectory algorithm and thus the motion posture of the bracket in real time; and by combining the angle sensor device to detect the real-time angle information of the bracket, and ultimately sends a rotation command to the motor for execution. The rotation of the motor realizes the adjustment of the bracket angle, and the system tracks the sun in real time, with a control precision within 2 degrees.



The input power of the controller is DC24V/AC AC220V, the output is connected to a 24V DC motor. The DC motor is built in with the linear actuator, the length of the linear actuator can be adjusted to realize the change of the bracket angle, thereby integrating the controller and the entire system together, and the linear actuator with excellent matching with the controller, the lifespan of the tracking bracket drive system can be improved.



► Easy To Install

The controller is integrated with the push rod (linear actuator). The controller requires 4 mounting holes in advance, which can be directly fixed to the rotating shaft of the bracket. The whole field operation team only needs to install the push rod (linear actuator) and the fixed controller in two steps, without the need of connecting cables or other additional work.

► High Reliability

The controller has a water protection rating of up to IP67 with the highest waterproof and dustproof standard in the industry. The product is also designed with minimal environmental impact as one of the primary considerations. It can also adapt to severe cold and heat temperature, as well as in other extreme environments such as desert and places with high humidity.



GLOBAL CASES

Customize The Solutions For Each Client



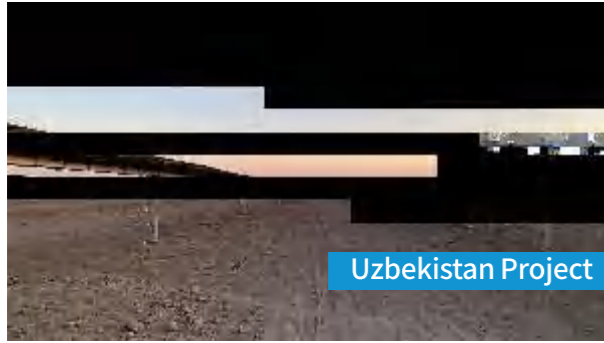
American Project



Qinghai Project



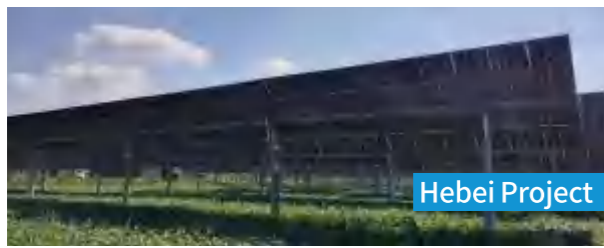
Columbia Project



Uzbekistan Project



Spanish Project



Hebei Project



American Project



Chile Project



Kenya Project



Ningbo Fenghua Xiaowei Park Distributed Tracking Project

Part 4

PRODUCT INTRODUCTIONS

Intelligent Equipment

Intelligent linear actuators can be used in agricultural, construction, sanitation, mining, afforestation, road engineering, railway equipment, and the marine industry. They are used to control seats, guards, doors, covers, balers, conductive frames, sprayers, valves, and many other devices.

PA 2
PA 6

Smart Medical

Smart Medical Intelligent linear actuators can be used for multi-functional medical beds, rehabilitation vehicles, and wheelchairs to position patients or equipment. Other applications include hospital equipment and gym exercise machines.

PM1
PC1

PA 18

PA 26

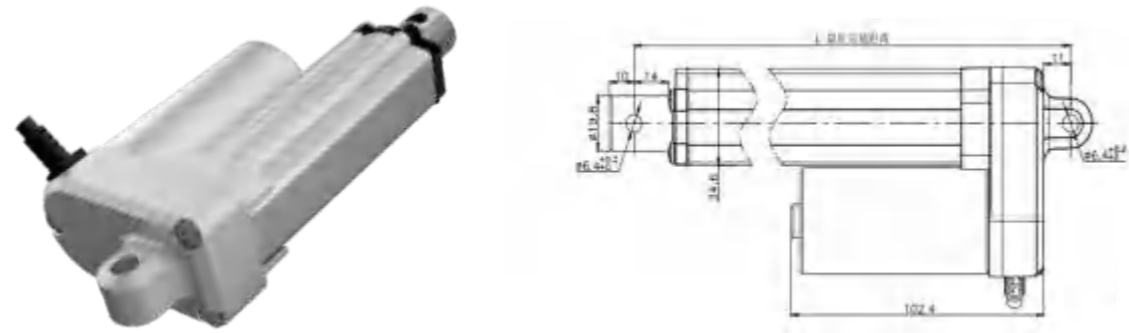
Smart Home

Smart Home Intelligent linear actuators can be used in homes, offices, and entertainment venues for automatic lifts, garage doors, gates, satellite receivers, beds, recliners, adjustable desks, arcade games, vending machines, theater/TV/movie props, and theme parks, etc.

Industrial & Agriculture

Intelligent linear actuators can be used in agriculture, construction, sanitation, mining, afforestation, road engineering, railway equipment, and the marine industry. They are used to control seats, guards, doors, covers, balers, conductive frames, sprayers, valves, and many other devices.

PA2

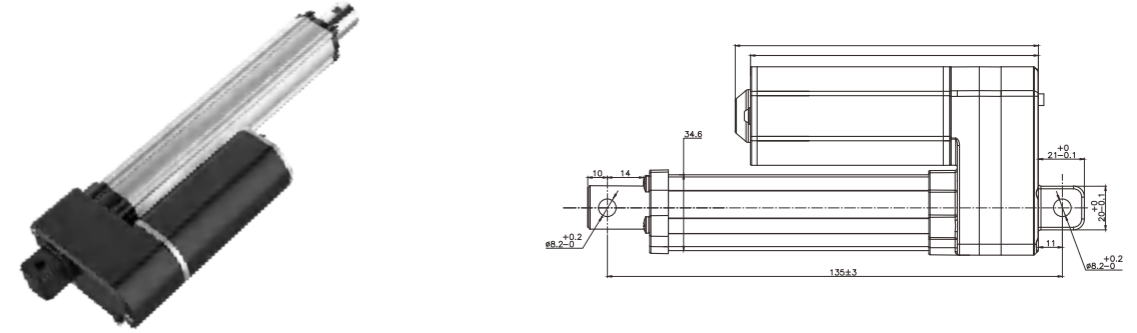


- Protection level: IP54/IP65/IP66
- Temperature: -40°C ~ +70°C
- Salt spray: 480H
- Industrial agriculture
- Higher safety factor
- More stable performance
- More cost-effective
- Intelligent equipment

Technical Parameter

Voltage (V)	12/24/36/48DC	Operating Temperature (°C)	-40°C ~ +70°C
Rated Load (N)	0~1300	Relative Humidity (%)	≤90
Self-Locking Force (N)	0~1300	Noise Level (db(A))	≤75
Speed Range (mm/s)	3.5~50 (Customizable)	Limit Switch	Built-In
Current Range (A)	1.0~6.5	Install Connector	Customizable
Stroke (mm)	20~1000 (Customizable)	Signal	Hall/None
Installation Distance (mm)	≥105 + Stroke (Customizable)	Motor Connector	Bare Wire/Customizable
IP Code	IP54/IP65/IP66		

PA6

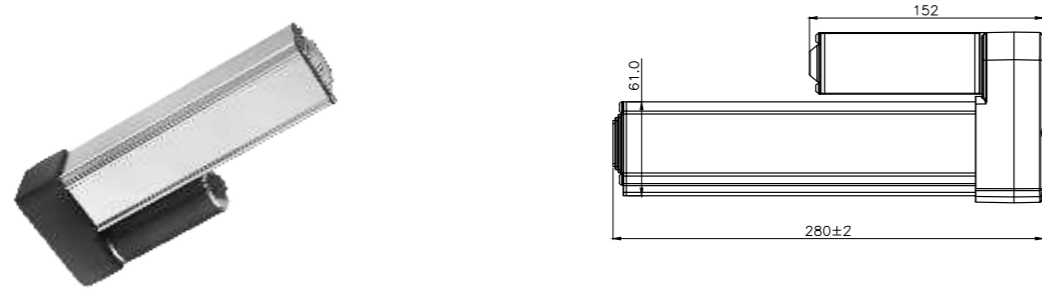


- Protection level: IP55~IP66
- Temperature: -25°C ~ +65°C
- Salt spray: 480H
- Medical treatment
- Higher safety factor
- More stable performance
- More cost-effective
- Intelligent equipment

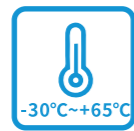
Technical Parameter

Voltage (V)	12/24/DC	Operating Temperature (°C)	-25°C ~ +65°C
Rated Load (N)	0 ~ 3000	Relative Humidity (%)	≤90
Self-Locking Force (N)	4000	Noise Level (db(A))	≤55
Speed Range (mm/s)	3.5~34.5 (Customizable)	Limit Switch	Built-In
Current Range (A)	0.6~7	Install Connector	Customizable
Stroke (mm)	20~800 (Customizable)	Signal Motor Connector	Hall/None
Installation Distance (mm)	≥110 + Stroke (Customizable)		Bare Wire/Customizable
IP Code	IP55-IP66		

PA18



Protection level



Temperature



Salt spray



Smart home



Higher safety factor



More stable performance



More cost-effective

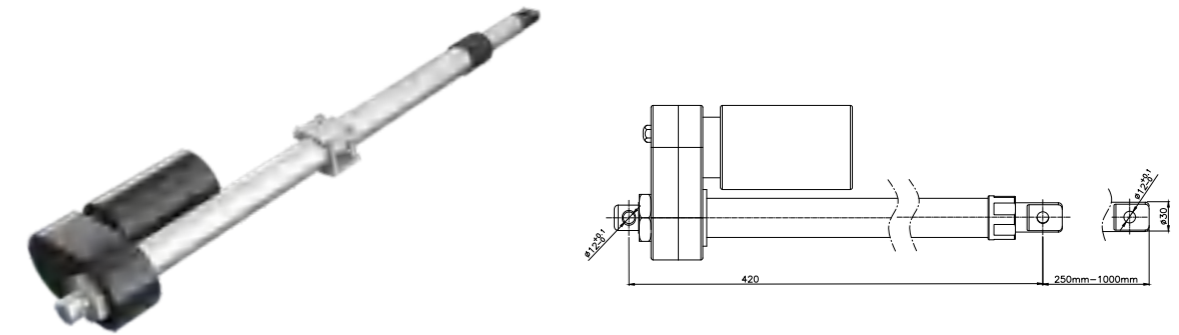


Intelligent equipment

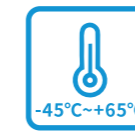
Technical Parameter

Voltage(V)	24 DC	Working Relative Humidity (%)	≤90%
Power(W)	80	Stroke (mm)	30~700 (Customizable)
Rated load, thrust application(N)	200	Installation Distance (mm)	≥110+Stroke 4 (Customizable)
No-load Current (A)	≤2	IP Code	IP42
Rated Load Speed (mm/s)	13	Noise Level(dBA)	55
No-load Speed (mm/s)	20	Built-in Limit Switch	Yes
Working Temperature (°C)	-30°C~+65°C	Motor Outlet Plug	Bare Wire Dip Tin, Customizable

PA26



Protection level



Temperature



Salt spray



Industrial agriculture



Higher safety factor



More stable performance



More cost-effective

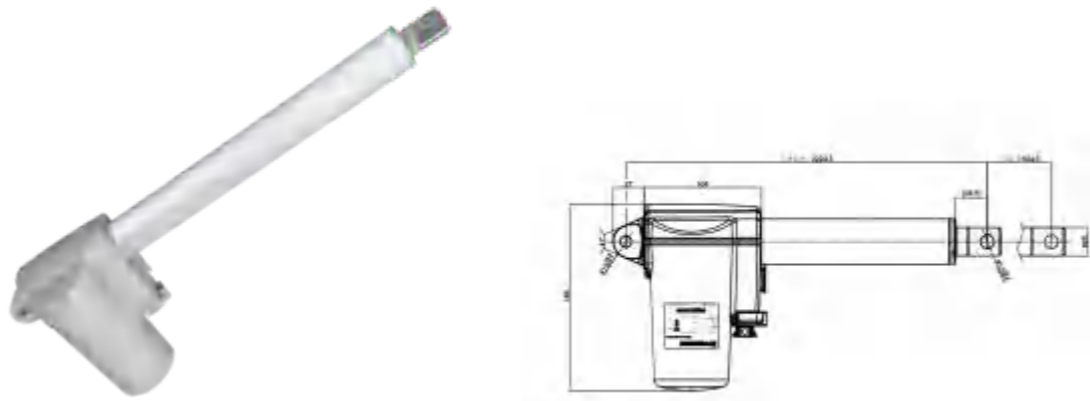


Intelligent equipment

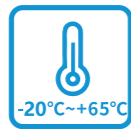
Technical Parameter

Voltage(V)	220 AC	Stroke (mm)	250~1000 (Customizable)
Power(W)	230	Installation Distance (mm)	≥420+ Stroke(Customizable)
Specified Load(N)	10000	IP Code	IP65
Maximum Load(N)	13000	Corrosion Category(ISO12944-2)	C3-15Years
Ultimate Static Load (N)	20000	The Highest Altitude (m)	3500
Half Stroke Static Load (Varies According To Stroke)(N)	20000	Noise Level(dBA)	85
No-load Current (A)	≤1	Rated Load Pull Current (A)	≤1.1
Rated Load Speed (mm/s)	6±10%	Rated Load Thrust Current (A)	≤1.2
No-load Speed (mm/s)	7±10%	Built-in Limit Switch	YES
Working Temperature (°C)	-40°C~+65°C	Connector	Immersion Tin (Customizable)
Working Relative Humidity (%)	<90		

PM1



Protection level



Temperature



Salt spray



Medical treatment



Higher safety factor



More stable performance



More cost-effective



Intelligent equipment

Technical Parameter

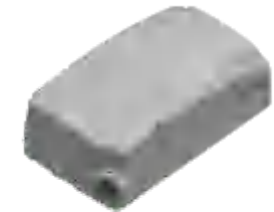
Voltage (V)	12/24/36/48DC	IP Code	IP66
Rated Load (N)	8000	Operational Temperature	-20°C ~ +65°C
Maximum Static Load (N)	8000	Relative Humidity (%)	≤ 90
Speed Range (mm/s)	2.4 ~ 15 (Customizable)	Noise Level (db(A))	≤ 53
Current Range (A)	0.6 ~ 7	Limit Switch	Built-In
Stroke (mm)	20 ~ 500 (Customizable)	Install Connector	Customizable
Installation Distance (mm)	≥ 170 + Stroke (Customizable)	Motor Connector	Bare Wire/Customizable

PH1



Hand Controller

PC1



Controller

Product Features

It can connect to 1-3 actuators and 1 hand controller.

PC1 controller can connect to backup power supply.

It is powered by a switch power board and is lighter.

PC1 controller can be installed inline with the PA2, PA6, and PM1 actuators.

Technical Parameter

Power Type	Toroidal Transformer	Fixed Number Of Bars	No Fixed Rules
Operating Voltage	AC220 50Hz	Power Cord Plug	National Standard Three Plugs
Number Of Motors	Three-Phase Motor	Power Cord Length	Straight Line Of 1.5 Meters
Product Color	Cool gray 3C	Input Current	DC24V/4A
IP Code	IP66	Operation (Load) Cycle	10%, Max 2Min On/18Min OFF

