

# SMART MANUFACTURING & CUSTOMIZED SOLUTIONS



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Powernice Intelligent Technology Co., Ltd



China's Leading Intelligent Damper Manufacturer

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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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Part 1

# DAMPER

Service as Our Core Foundation  
Surviving Through Quality  
Advancing Through Innovation

8+  
R&D Laboratory

10+  
Partnered Publicly Listed Companies

85+  
Patents

35+  
R&D Personnel

27000 m<sup>2</sup>+  
Production Center



## China's Leading Intelligent Damper Manufacturer

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



# China's Leading Intelligent Damper Manufacturer

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

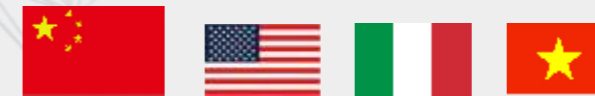
Planned Production Capacity of 620,000 Units

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

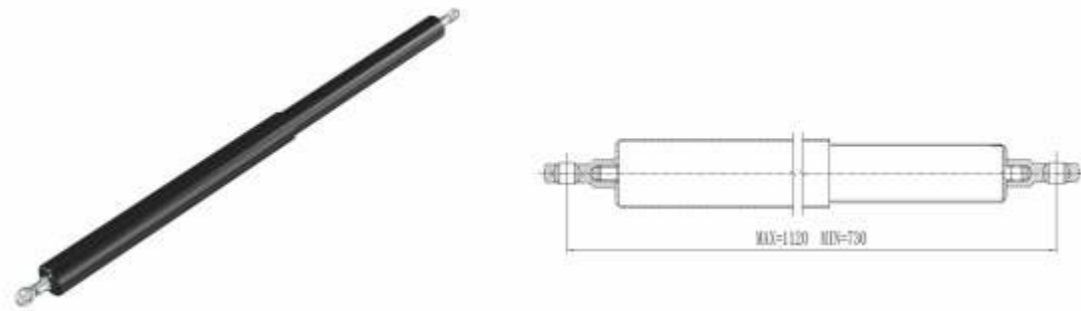
- Marketing Department
- Sales Department
- Project Department
- After-Sales Department
- Planning Department
- Finance Department
- Pre-Sales Engineering Department

## Other Service Outlets

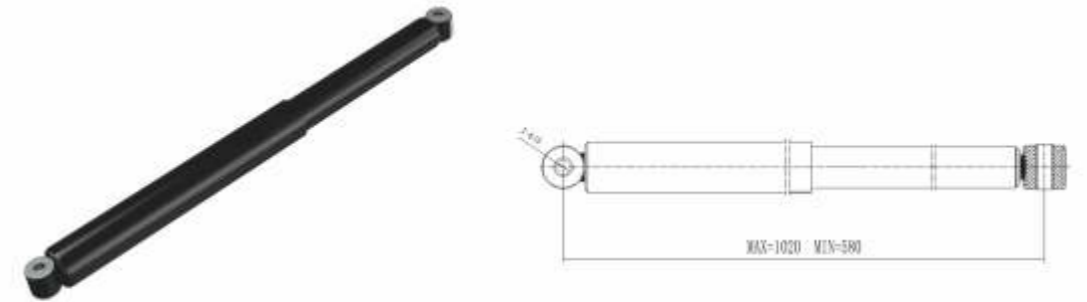
- Suzhou
- Hubei
- North America-Las Vegas
- Europe-Italy



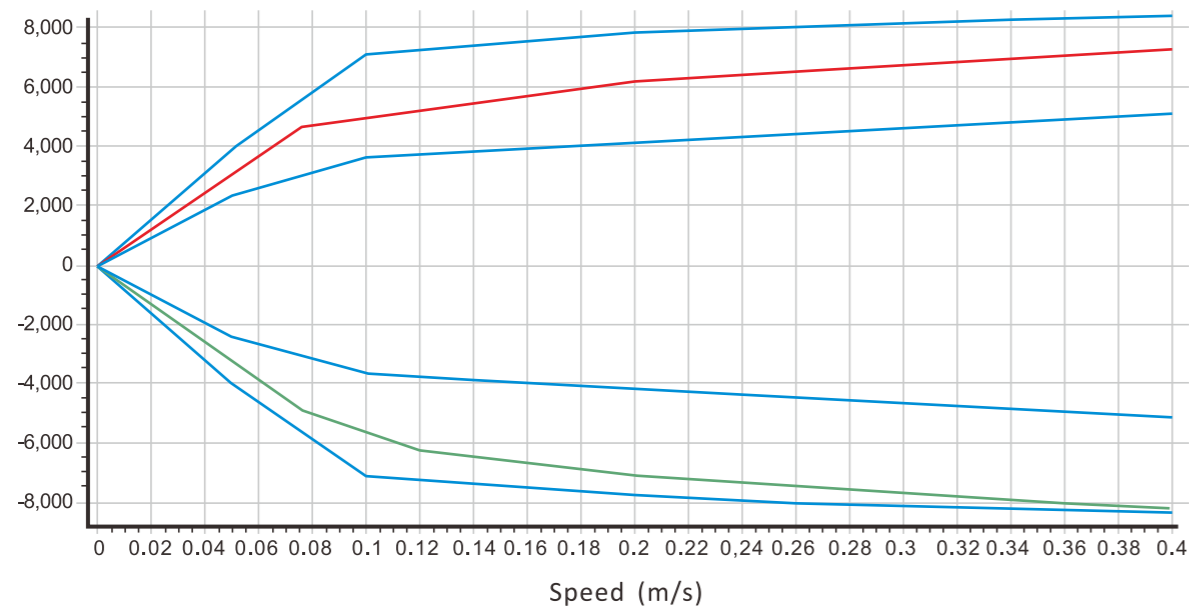
PD1



PD2

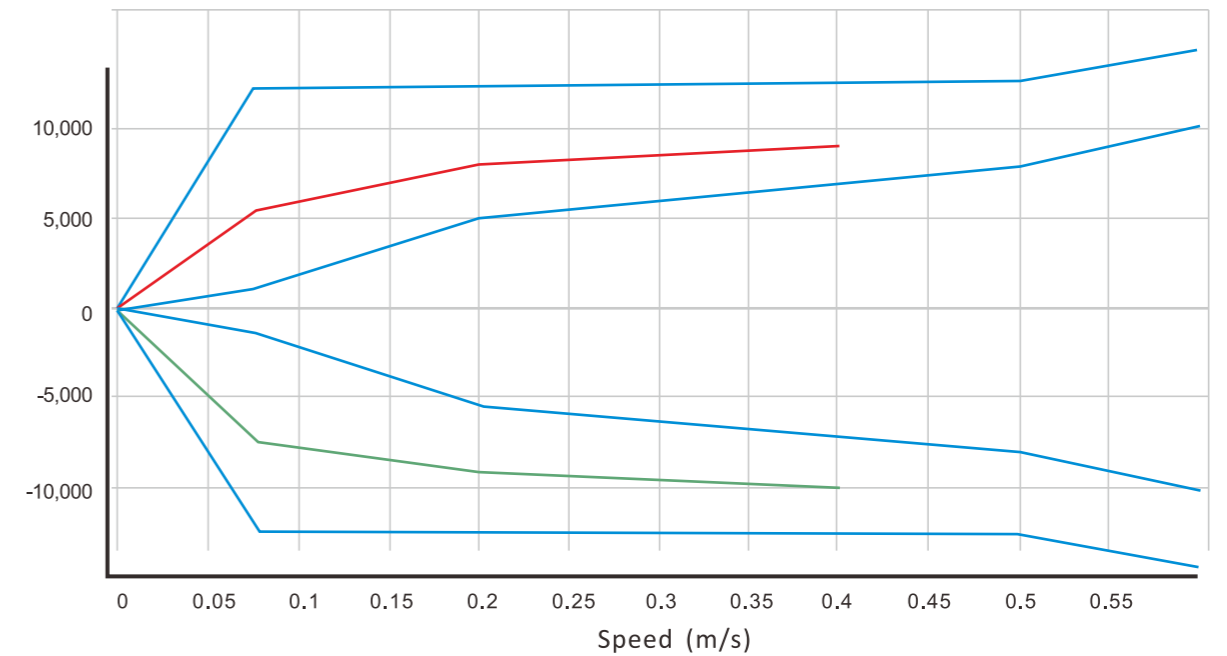


Measured Force-Value Characteristic Curve



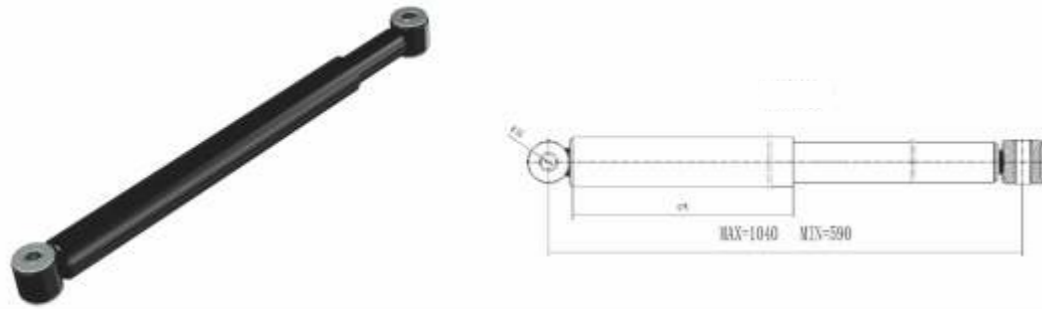
	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	4605	5463	6589	7382	
Maximum Compression Force (N)	5380	6214	7549	8495	
Linear Velocity (m/s)	0.075	0.126	0.201	0.501	

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		

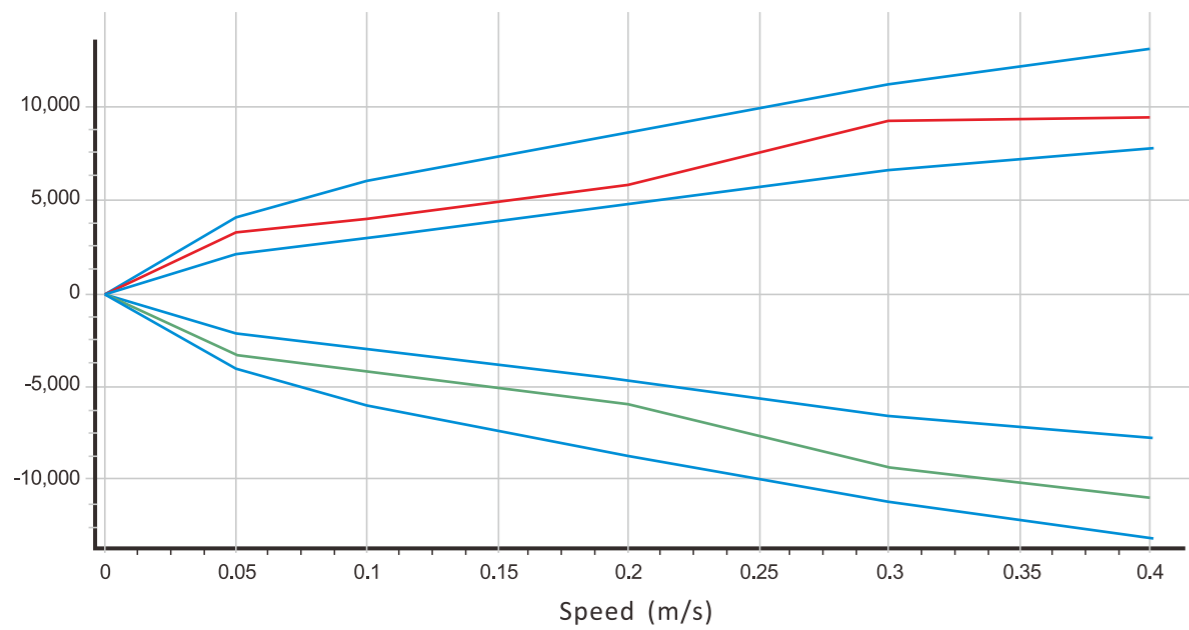
PD3



PD4

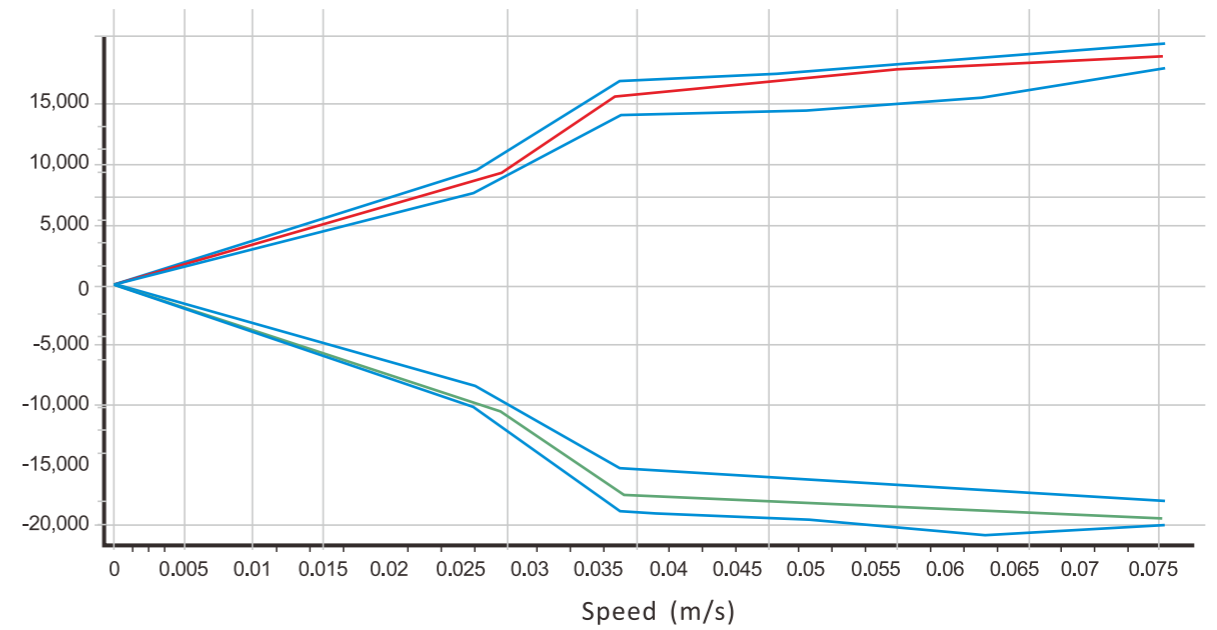


Measured Force-Value Characteristic Curve



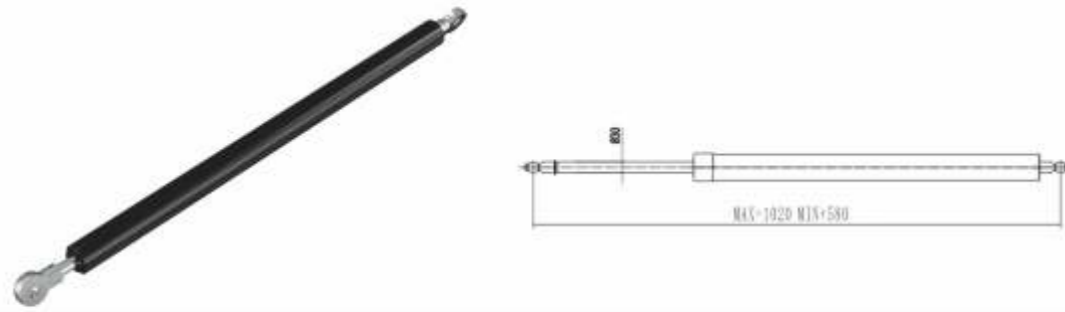
	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	4605	5463	6589	7382	
Maximum Compression Force (N)	5380	6214	7549	8495	
Linear Velocity (m/s)	0.075	0.126	0.201	0.501	

Measured Force-Value Characteristic Curve

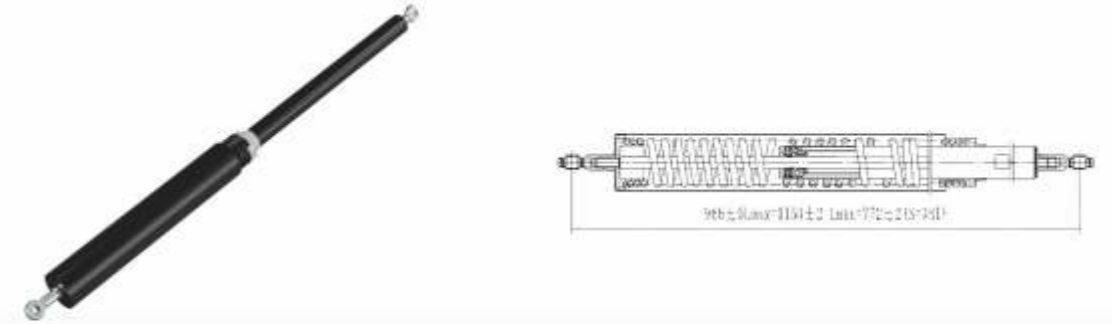


	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	8546	14565	15357	16457	
Maximum Compression Force (N)	10035	15541	16046	17742	
Linear Velocity (m/s)	0.026	0.042	0.047	0.052	

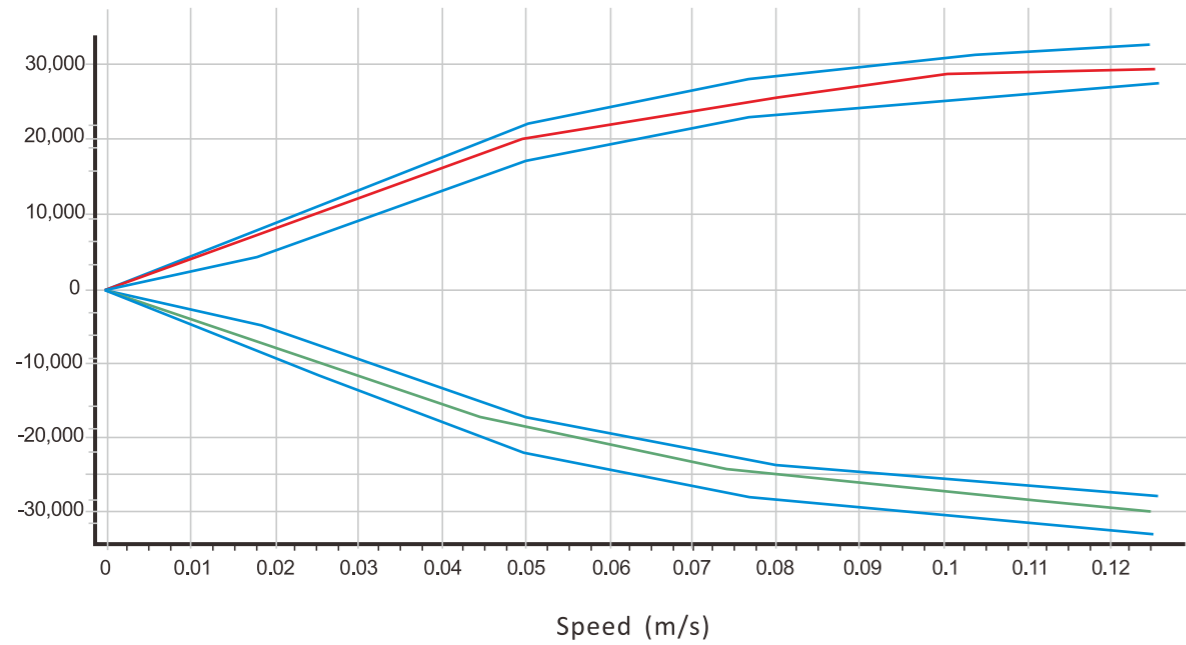
PD5



PD6

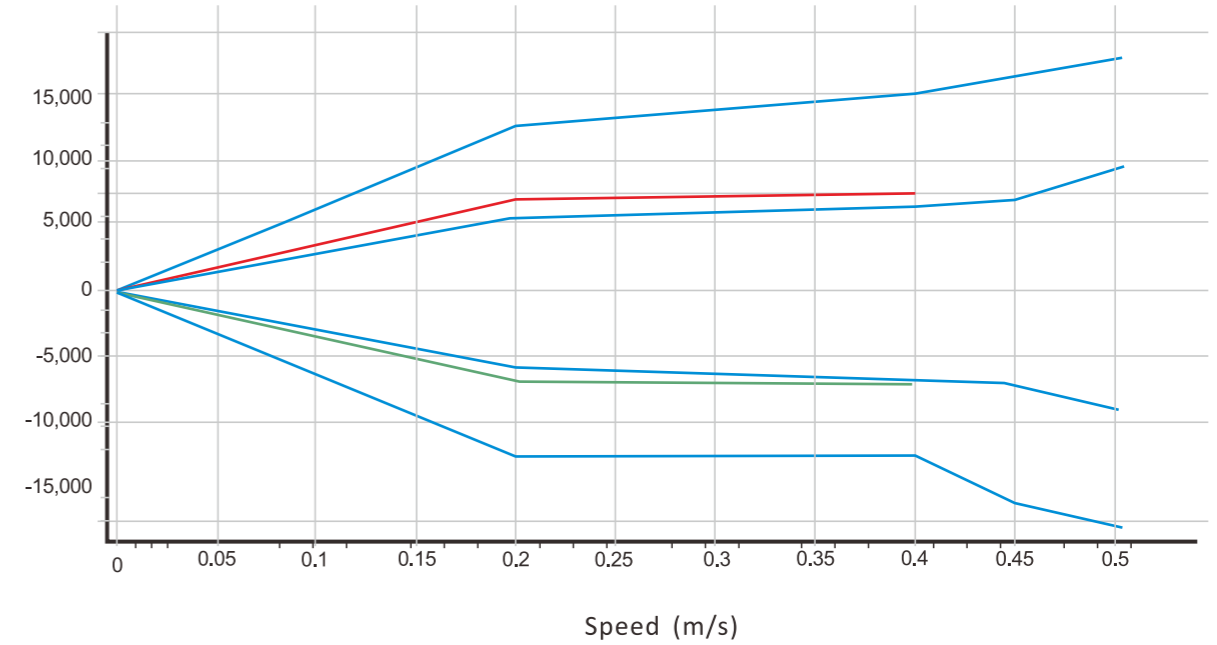


Measured Force-Value Characteristic Curve



	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

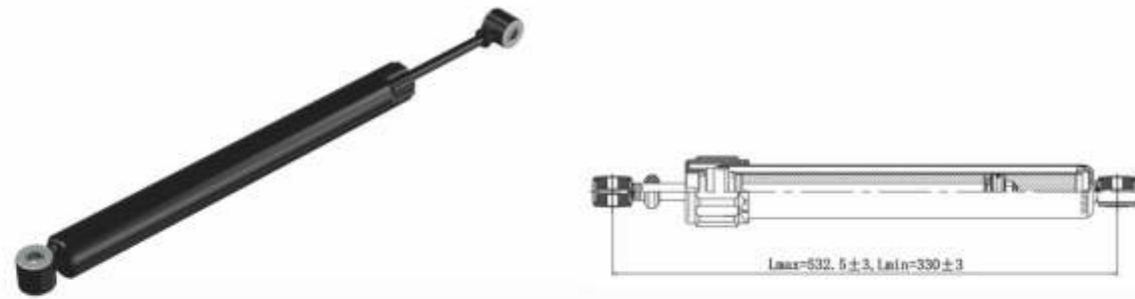
Measured Force-Value Characteristic Curve



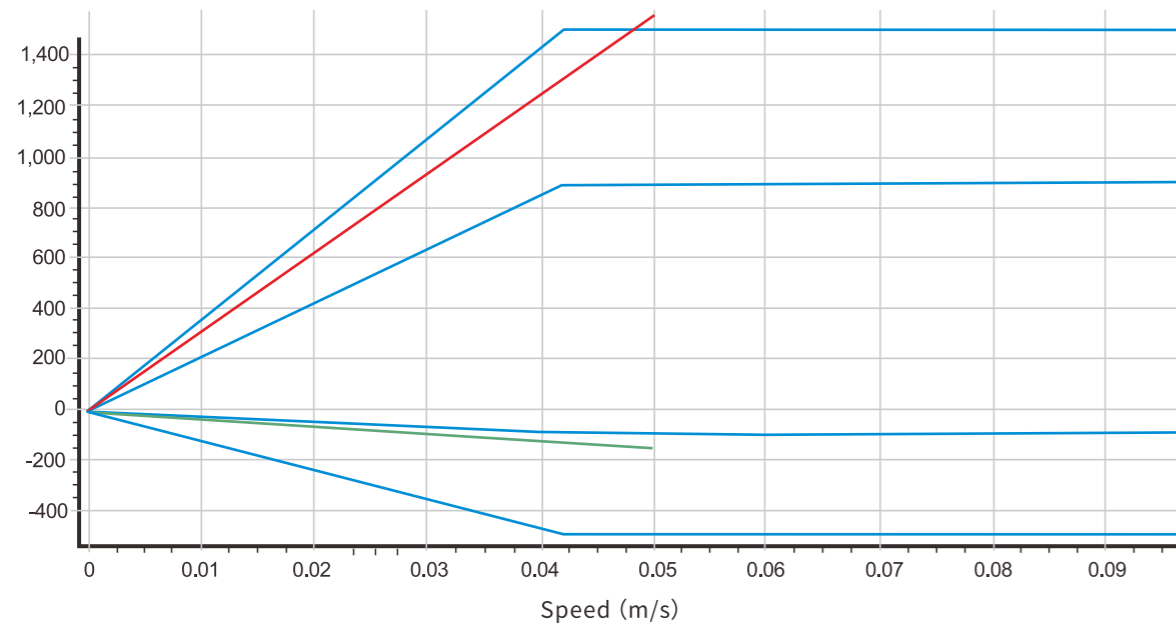
	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	6967	7060			
Maximum Compression Force (N)	6997	7055			
Linear Velocity (m/s)	0.202	0.401			



PD7



Measured Force-Value Characteristic Curve



	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	1563				
Maximum Compression Force (N)	151				
Linear Velocity (m/s)	0.05				

## Photovoltaic Damper Specifications And Performance Table

1. Application details and working conditions \_\_\_\_\_

2. Essential parameter:

2.1 The damper has a maximum outer diameter	$\phi$	Piston pole diameter	$\phi$
2.2 Ring installation aperture	Install aperture on top	$\phi$	Install aperture on top $\phi$
2.3 Maximum tensile length of the damper			
2.4 Minimum compression length of the damper			
2.5 Test status length of the damper	Suggestion: Center point of travel location		
2.6 Damper ultimate load (KN)			
2.7 Damper lateral load (N)			

Solid hanging ring  Fish eye bearing  Rubber cushion hanging ring  Other

3. Type of joint of both ends of the dampers



4. Life endurance test reciprocation times (stroke length 25mm)  200 Thousand times  500 Thousand times  1000 Thousand times  2000 Thousand times  Other

5. Whether the coating should be protected from UV light  Yes  No

6. Anticorrosion test of appearance coating (H)  100H  200H  300H  500H  Other

7. Waterproof grade (IEC60529) \_\_\_\_\_

8. Damper speed-load table (recommended to choose speed 2 or 5 as the test point, test temperature: 20°C- -25°C)

	Speed (m/s)	Stretching force (N)	Compressive force (N)
Speed point 1			
Speed point 2			
Speed point 3			
Speed point 4			
Speed point 5			

9. Other parameters:

Operating temperature \_\_\_\_\_ Operating humidity \_\_\_\_\_ Install altitude \_\_\_\_\_

Required quantity \_\_\_\_\_ Annual quantity required \_\_\_\_\_

10. Special requirements: Please provide detailed drawings