SMART
MANUFACTURING
& CUSTOMIZED SOLUTIONS

POWERNICE

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Powernice Intelligent Technology Co., Ltd

POWERNICE

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.

Part 1

DAMPER

Service as Our Core Foundation
Surviving Through Quality
Advancing Through Innovation

POWERNICE

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

Newborn

2800 square meters

PA2/PA6/PA7/PA8/

Pa9 product launch

2018

Growth

Mass production of 7500㎡/PA8/PA9 products

GCS bulk supply

NCLAVE/CONVERT product testing

150-fold increase in output value

2019

Strengthen

PA10/PA11/PA12/

PA13/PA14 product launch and mass production

Trina strategic cooperation

CONVERT strategic cooperation

Liugong/Invola/BAIC/ Haier

2020

Leap

18,000㎡

Shanghai Gimpo + Ningbo Government Fund

9 production lines

Patents 65+

Global leader in photovoltaic tracking

2021

Take off

Chinalco's fund

SOLTEC test

PVH test

Patents 85 +

Construction on Vietnam's factory

Sales volume exceeded 200,000 units

Set up the Suzhou branch company

Establish Hubei Engineering Company

2022

2 Industrial Manufacturing Base

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.

7+ Global Service Network

Shenzhen Global Marketing Center

Marketing Department

Sales Department

Project Department

After-Sales Department

Planning Department

Finance Department

Pre-Sales Engineering Department

Other Service Outlets

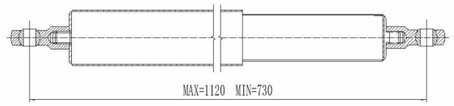
Suzhou

Hubei

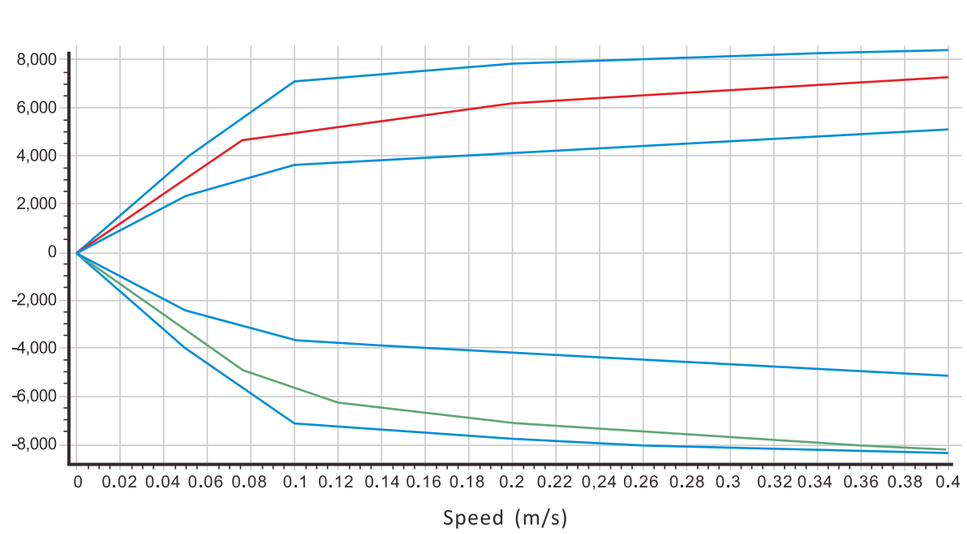
North America-Las Vegas

Europe-Italy

PZ1

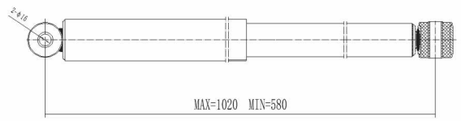


Measured Force-Value Characteristic Curve

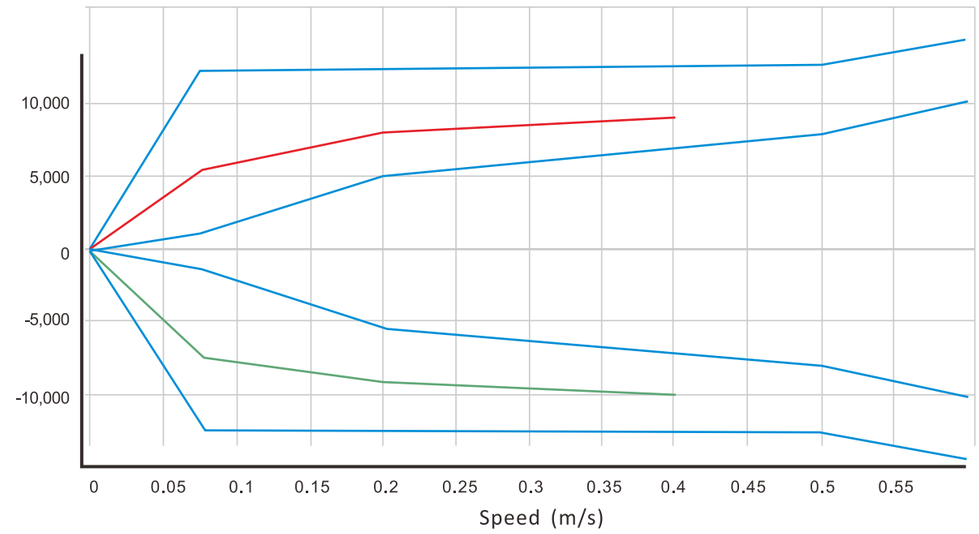


	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	4605	5463	6589	7382	
Maximum Compression Force (N)	5380	6214	7549	8495	
Linear Velocity (m/s)	0.075	0.126	0.201	0.501	

PZ2

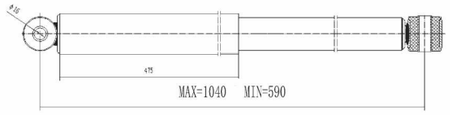


Measured Force-Value Characteristic Curve



	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



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	

PZ4

Measured Force-Value Characteristic Curve

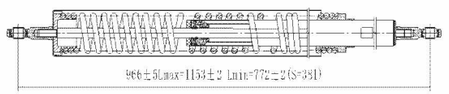
	V1	V2	V3	V4	V5
Maximum Restorative Force (N)	8546	14565	15357	16457	
Maximum Compression Force (N)	10035	15541	16046	17742	
Linear Velocity (m/s)	0.026	0.042	0.047	0.052	

PZ5

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

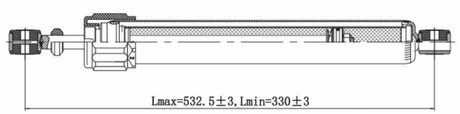
PZ6



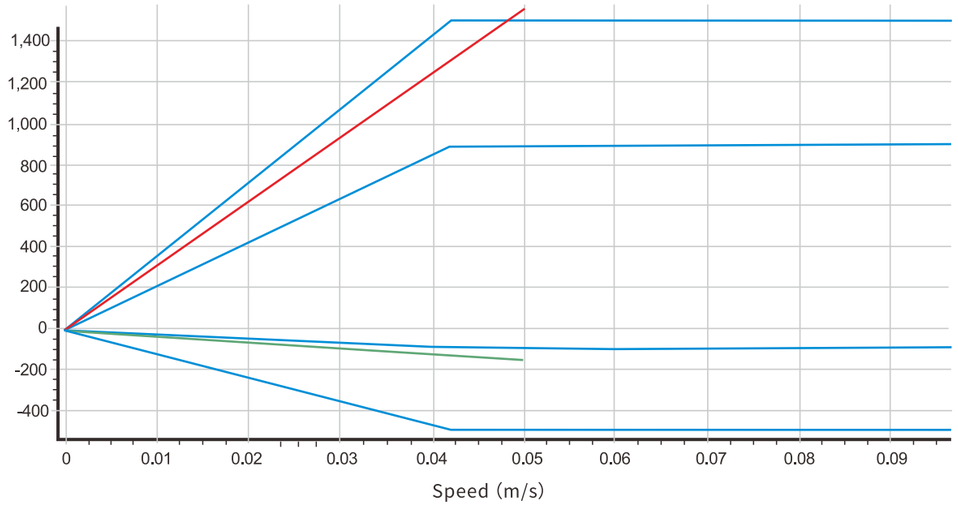
Measured Force-Value Characteristic Curve

	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			

PZ7



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	Φ	Piston pole diameter	Φ	
2.2 Ring installation aperture	Install aperture on top	Φ	Install aperture on top	Φ
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)				

3、Type of joint of both ends of the dampers ☐ Solid hanging ring ☐ Fish eye bearing ☐ Rubber cushion hanging ring ☐ Other

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℃--25℃)

	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

Memorandum

Memorandum