

BD3 Series Servo Drive Naming Rules

BD 3 S - 2D8 2A EB - ST

① ② ③ ④ ⑤ ⑥ ⑦

① Driving type

BD	Bundle Drive
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② Generation

3	Third generation
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③ Function orientation

E	Economical model
S	Standard model
P	Premium model

④ Current rating

1D6	Persistent 1.6 Arms, maximum 5.6 Arms
2D8	Persistent 2.8 Arms, maximum 9.8 Arms
3D5	Persistent 3.5 Arms, maximum 11 Arms
5D4	Persistent 5.4 Arms, maximum 14 Arms
5D5	Persistent 5.5 Arms, maximum 16.9 Arms
...	

⑤ Input power supply voltage

2A	single/ three phase 220V, -10% ~ +10%, 50/60 Hz
4D	three phase 380V, -10% ~ +10%, 50/60 Hz

⑥ Communication interface

AP	Position pulse
EB	EtherCAT
PN	ProfiNET
CN	CANOpen

⑦ Special specifications

Blank	Standard
ST	STO
BS	Brake Resistor+ STO

BD3 Series Drive Specification

Model	BD3E-1D62AEB	BD3E-2D82AEB	BD3E-2D82AEB-BS	BD3E-5D52AEB	BD3E-3D54DEB	BD3E-5D44DEB	BD3E-8D44DEB	BD3E-0124DEB
	BD3S-1D62AEB	BD3S-2D82AEB	BD3S-2D82AEB-BS	BD3S-5D52AEB	BD3S-3D54DEB	BD3S-5D44DEB	BD3S-8D44DEB	BD3S-0124DEB
	BD3E-1D62AEB-ST	BD3E-2D82AEB-ST		BD3E-5D52AEB-ST	BD3E-3D54DEB-ST	BD3E-5D44DEB-ST	BD3E-8D44DEB-ST	BD3E-0124DEB-ST
	BD3S-1D62AEB-ST	BD3S-2D82AEB-ST		BD3S-5D52AEB-ST	BD3S-3D54DEB-ST	BD3S-5D44DEB-ST	BD3S-8D44DEB-ST	BD3S-0124DEB-ST
Maximum motor capacity (w)		200	400	750	1000	1500	2000	3000
Continuous output current [Arms]		1.6	2.8	2.8	5.5	3.5	5.4	11.9
Instantaneous maximum output current [Arms]		5.8	9.8	9.8	16.9	11	14	29.7
Main circuit	Power supply	1ph AC 200V-240V +10% ~ -10%, 50/60Hz			3ph AC 380V-440V +10% ~ -10%, 50/60Hz			
	Input current [Arms]	2.3	4	4	7.9	2.4	3.6	5.6
Control power supply		Power from bus and sharing rectification						
Regenerative resistor	Built-in resistance value [Ω]	No	No	40	40	100		50
	Built-in resistance power [W]	No	No	50	50	60		75
	Maximum absorbed braking energy for capacitor [J]	13.15	26.29	26.29	22.41	34.28	34.28	50.41
	External minimum allowable resistance [Ω]	50	45	40	40	80	60	45
Chassis		A		B		C		D
Dimension	W(mm)	45		50		60		75
	H(mm)	160		160		160		160
	D(mm)	173		173		196		196
Fan		No	No	Yes	Yes	Yes	Yes	Yes

Servotronics Motion Control Ltd.

Address: Room 605, Building B2, Kexing Science Park, No. 15, Keyuan Road, Nanshan District, Shenzhen, Guangdong, China
Tel : 400-111-8669
Fax: +86 0755 86626665
E-mail : servotronics@midea.com
Official website : www.servotronics.cn



BD3 Series AC Servo System



BD3S Standard AC Servo System

Import Substitution Pefect Choice

350%

Peak overload

3.2 kHz

Velocity loop response bandwidth

23 bit

Multi-turn optical
encoder

255-axis

Supporting synchronous
control of 255-axis EtherCAT
network equipment

PH2 series servo motors as standard



EtherCAT
Network
communication

6000r/min
Maximum
speed

3.5 times
overload
capacity

1.5%
Cogging
torque

2 million
times of brake
switching life

23-bit encoder
resolution

CE
certification

IP65
motor
protection

BD3E Economical AC Servo System

Reliable and Easy to Use

350%

Peak overload

2.1 kHz

Velocity loop response bandwidth

20bit

single/multi-turn
magnetic encoder

255-axis

Supporting synchronous
control of 255-axis EtherCAT
network equipment

PM2 series servo motors as standard



EtherCAT

Network
communication



6000r/min
Maximum
speed



3.5 times
overload
capacity



20-bit encoder
resolution



CE
certification



IP65
motor
protection

01. Exquisite Design Delivers Craftsmanship

Hidden battery compartment

Simple wiring and stable connection

Strong and weak current separation design

Powerful anti-interference ability

Ethernet debugging interface

Stable and convenient; supporting EtherCAT debugging, easy for remote parameter downloading and firmware maintenance

Easy code scanning

Unique code for each machine, easy to identify and trace product information



02.

Easy to Debug Live at Power Up



MTP electronic nameplate
Motor plug-and-play

Absolute encoder
Limit and origin are not required

Graphical debugging wizard,
easy to understand

One-key self-tuning
saving 90% debugging time

Control panel
With six keys, parameter debugging, system tuning, troubleshooting and alarm clearing can be mastered in one hand



03.

Trustworthy and Rigid

Active heat dissipation design+conformal coating

Withstanding harsh environments
such as high temperature, high
humidity and much dust

High quality materials

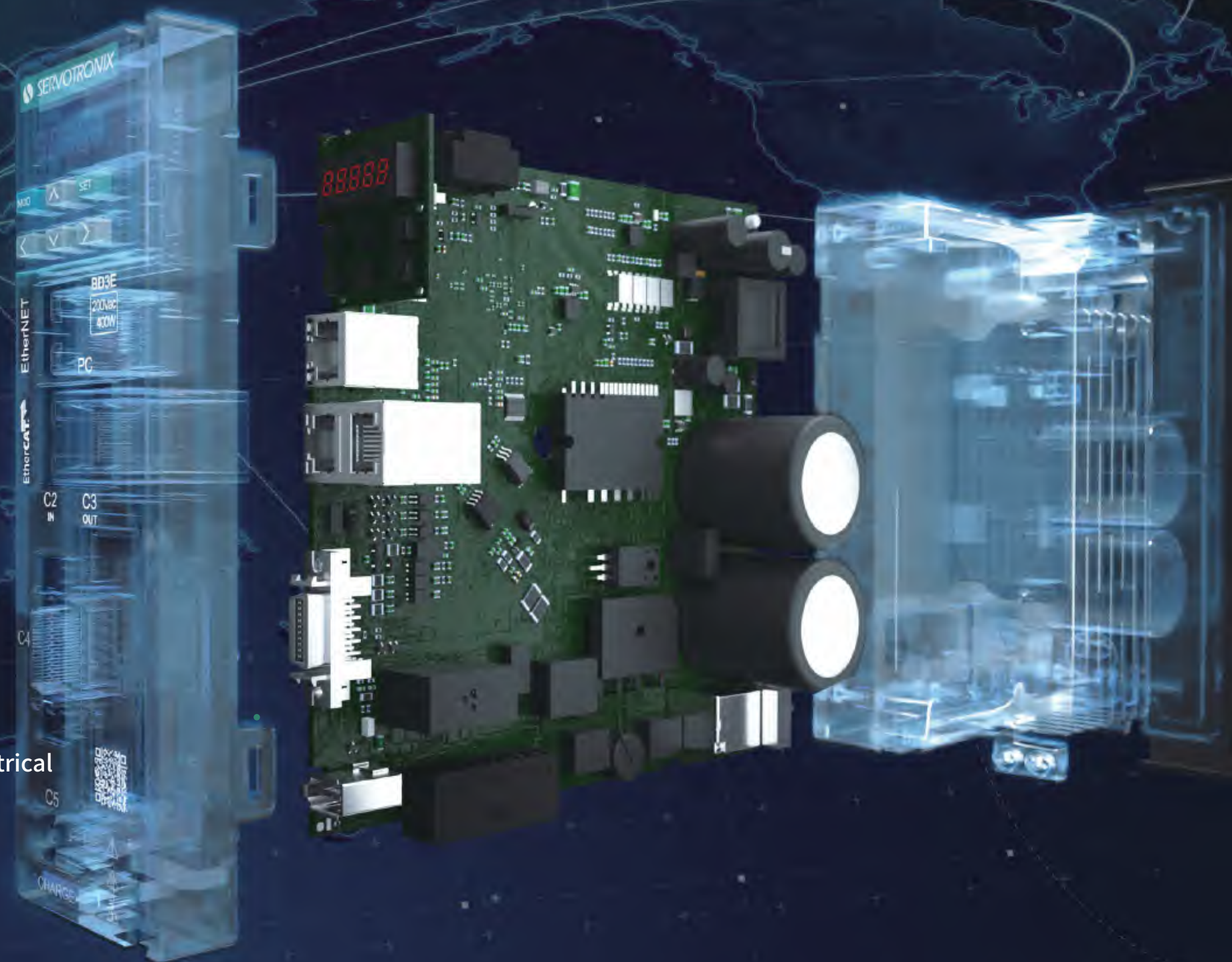
Strict process control; excellent
quality and precision deliver stable
running and efficient production

Pass IEC 61800 test

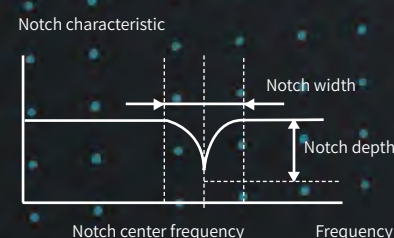
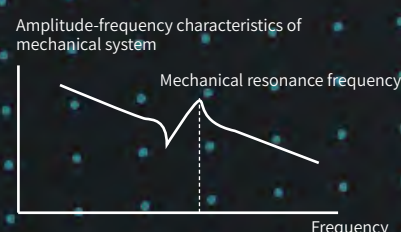
Withstanding complex electrical
environment

Products meet CE certification standards

CE certification issued by
TUV, meeting the safety
requirements of overseas
customers



04. Advanced Algorithm Combines Rigidity and Flexibility



Fast tuning

MTP electronic nameplate+self-tuning

Collision detection

Open-loop force control simplifies system structure and saves sensor cost

Vibration suppression

Full frequency domain (low frequency+intermediate frequency+high frequency) vibration suppression; rigid+flexible load vibration suppression

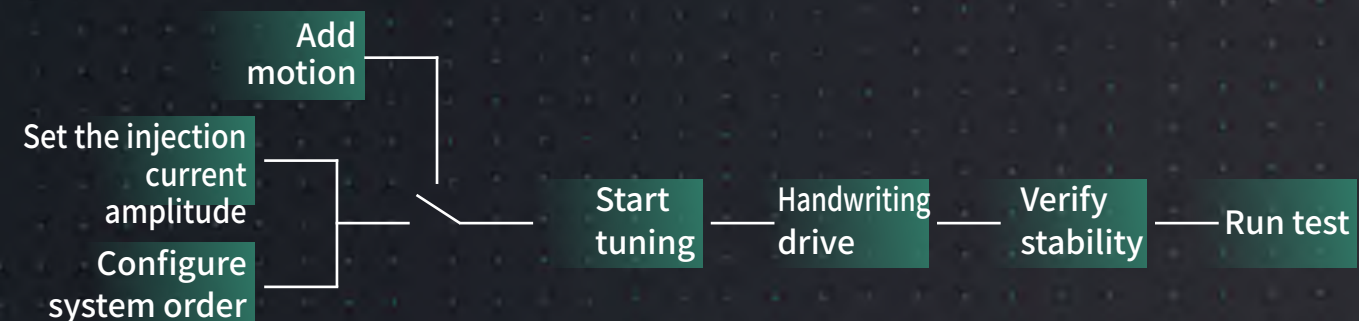
HDM control algorithm

Frequency domain design mode based on mechanical model, delivering the optimal servo control gain and filtering parameters



05.

Simple Mode - Automatic Tuning



Application advantages:

High reliability

Model-based parameter self-tuning, providing high reliability

Small moving distance of the object

Parameter tuning based on frequency analysis; small moving distance of the target object during the tuning process

No vibration

No severe vibration in the process of parameter tuning, no damage to the machine

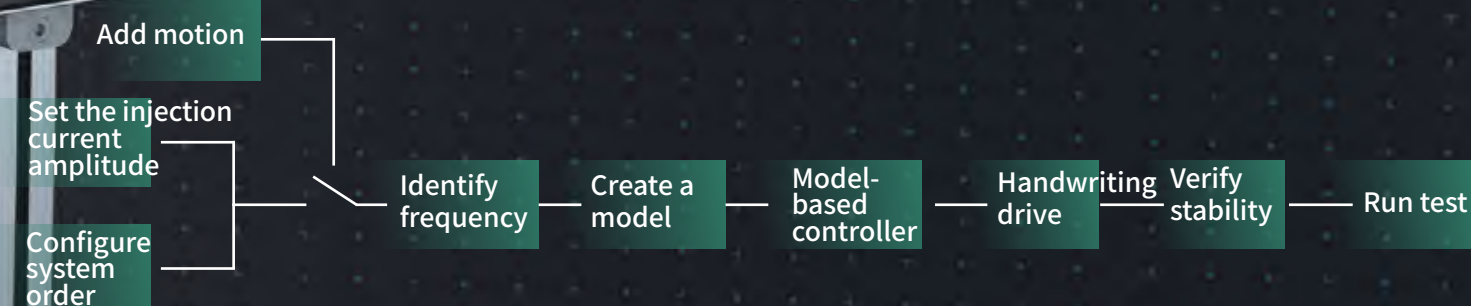
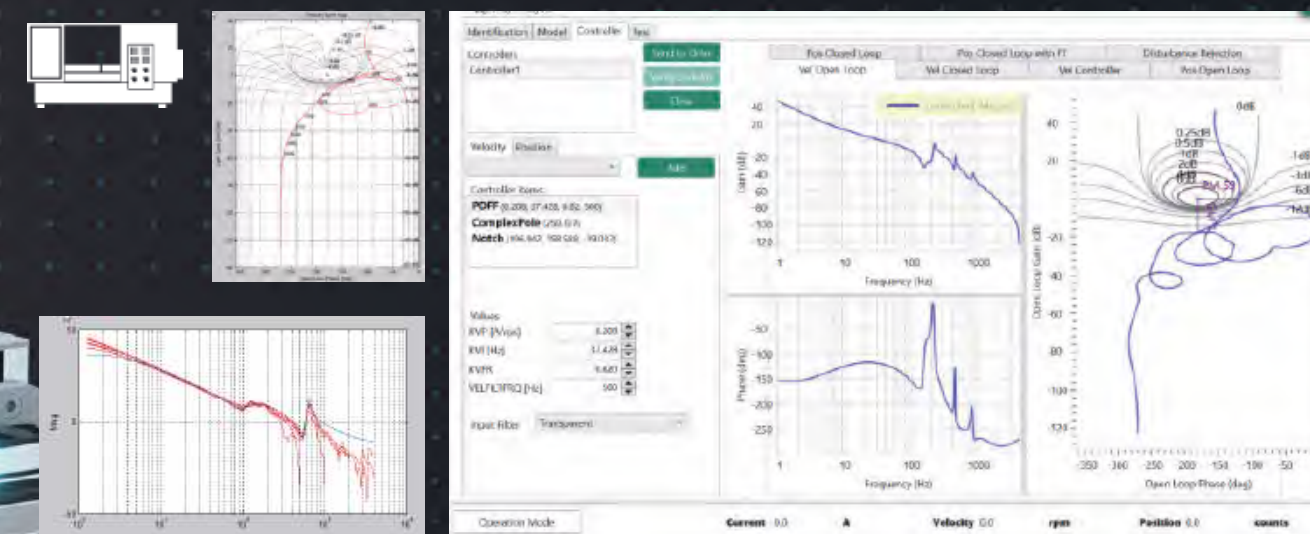
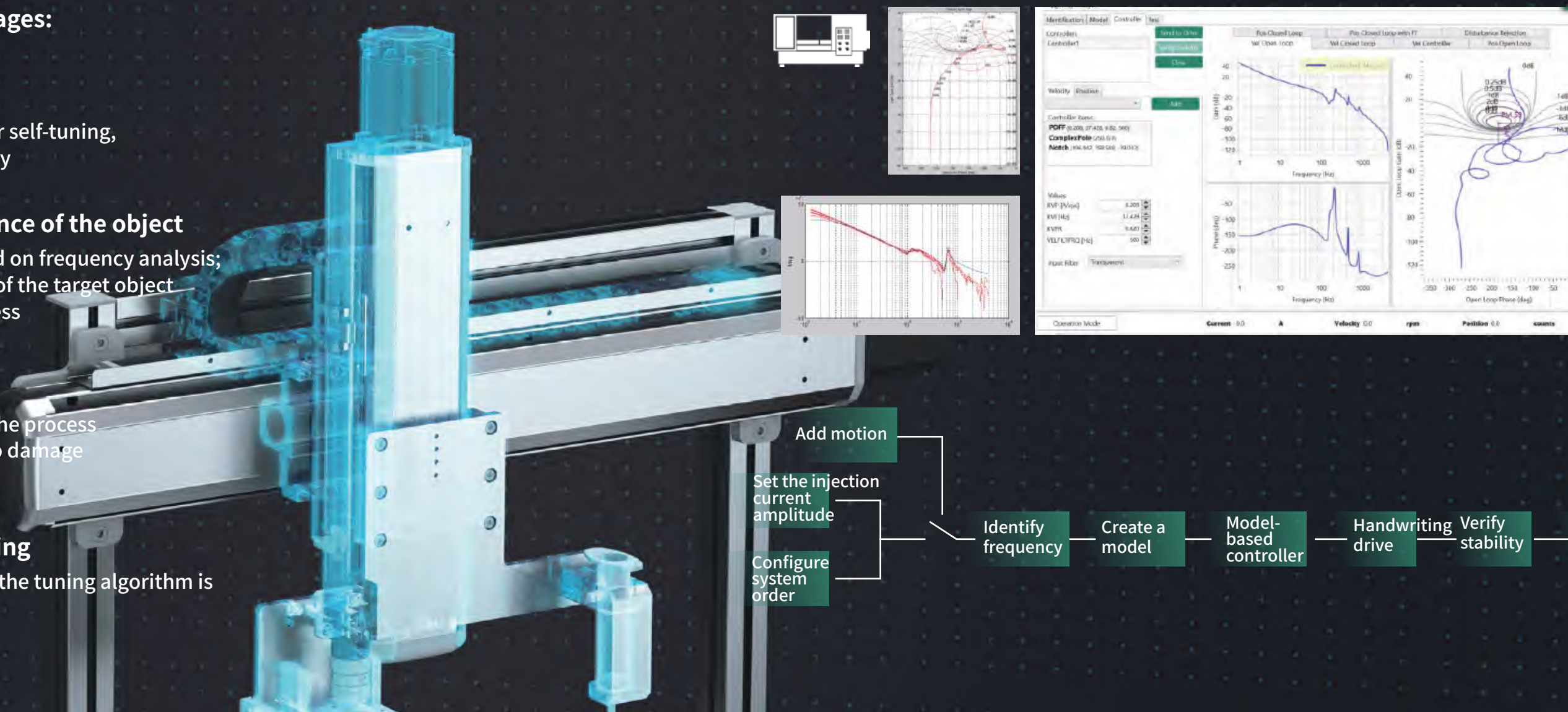
Fast parameter tuning

Fast parameter tuning: the tuning algorithm is realized in PC

06.

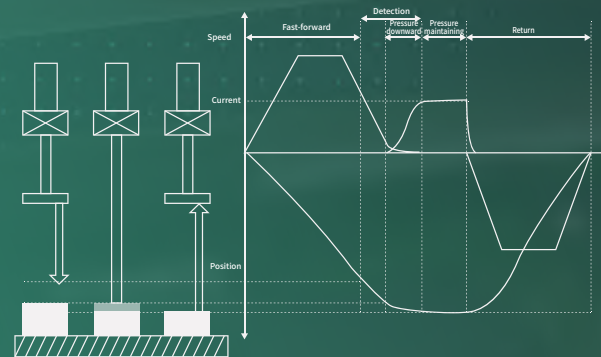
Expert Mode - HDM Algorithm Based on Frequency Domain Analysis of Machine Model

Identifying the system, automatically designing parameters, and improving the control performance

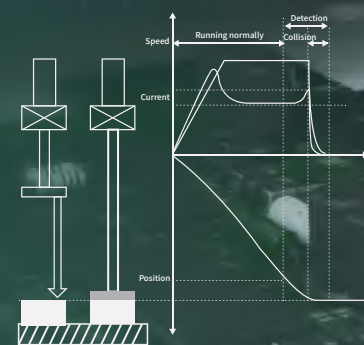


07.

Open-Loop Force Control



Pressure maintaining process



Collision protection

Accurate sensor-less pressure control

Optional pressure maintaining function and collision protection

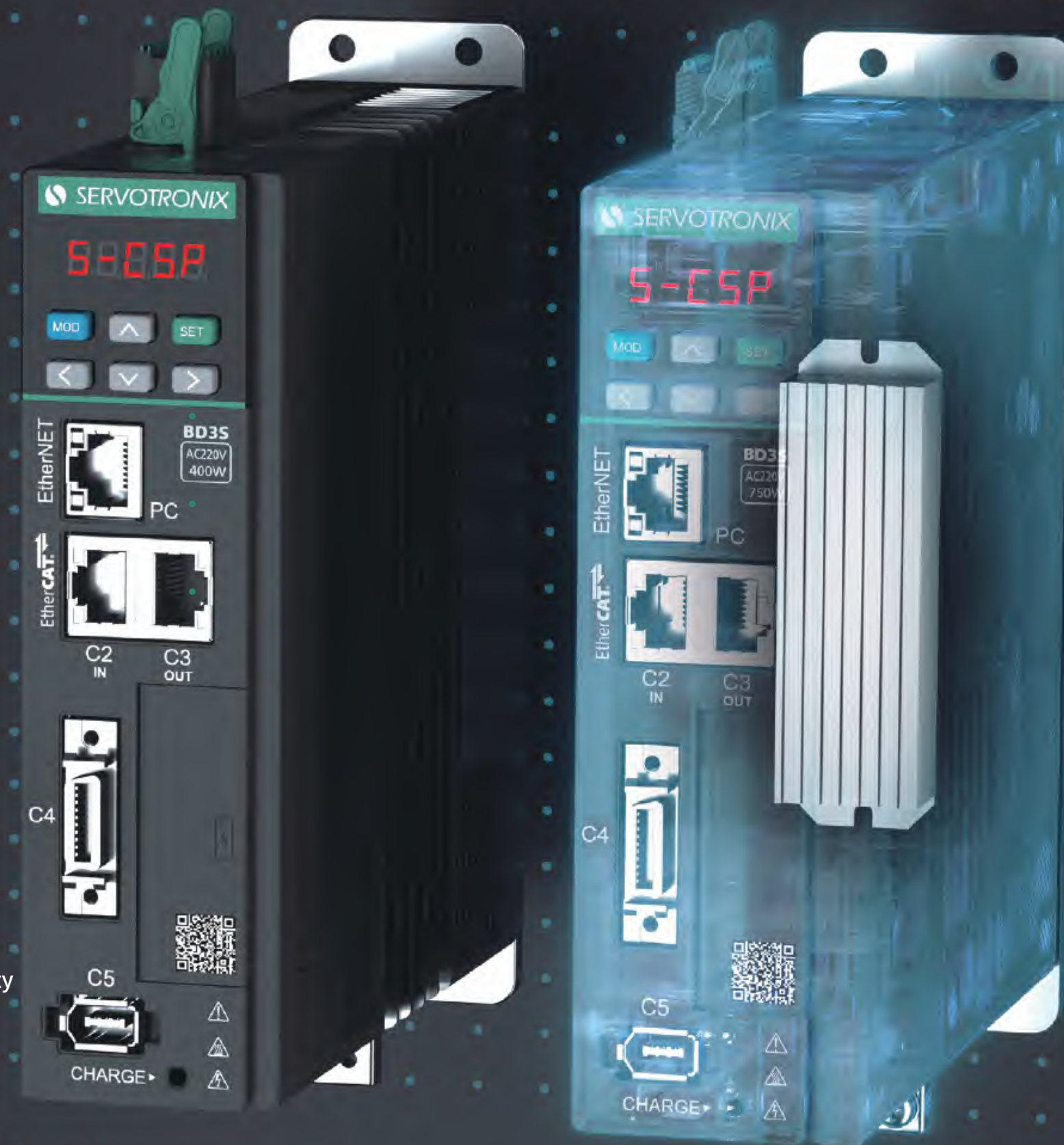
Pressure maintaining supports 5-segment position and pressure setting

Accurate collision protection to avoid false alarm.

08.

Safe and Reliable

Easy to Use



Narrow box

The 400W special model has built-in regenerative resistor, which saves the space of electric cabinet, shortens the deceleration time and improves the braking ability

STO safety torque shutdown

Simplifying the design of the overall safety function system of the equipment

Dynamic braking

Reducing the free parking distance after power failure

Collision detection

Can be set to return to homing or stop after collision



For other domestic manufacturers, 400w models need external regenerative resistor

Lithium battery PV 3C electronic Universal automation ...



Woodworking machinery Food packaging Laser processing

Control product

MC804

high-performance
motion controller
Supporting 16 axes in
1ms
Supporting 32 axes in
2ms

SC301

Compact motion
controller
Rich interfaces,
supporting 16 axes

PT series touch screen ET series IO module

Easy to use, with
comprehensive functions

Can be extended to the
right based on SC301
Can be distributed and
flexibly arranged



Drive Product

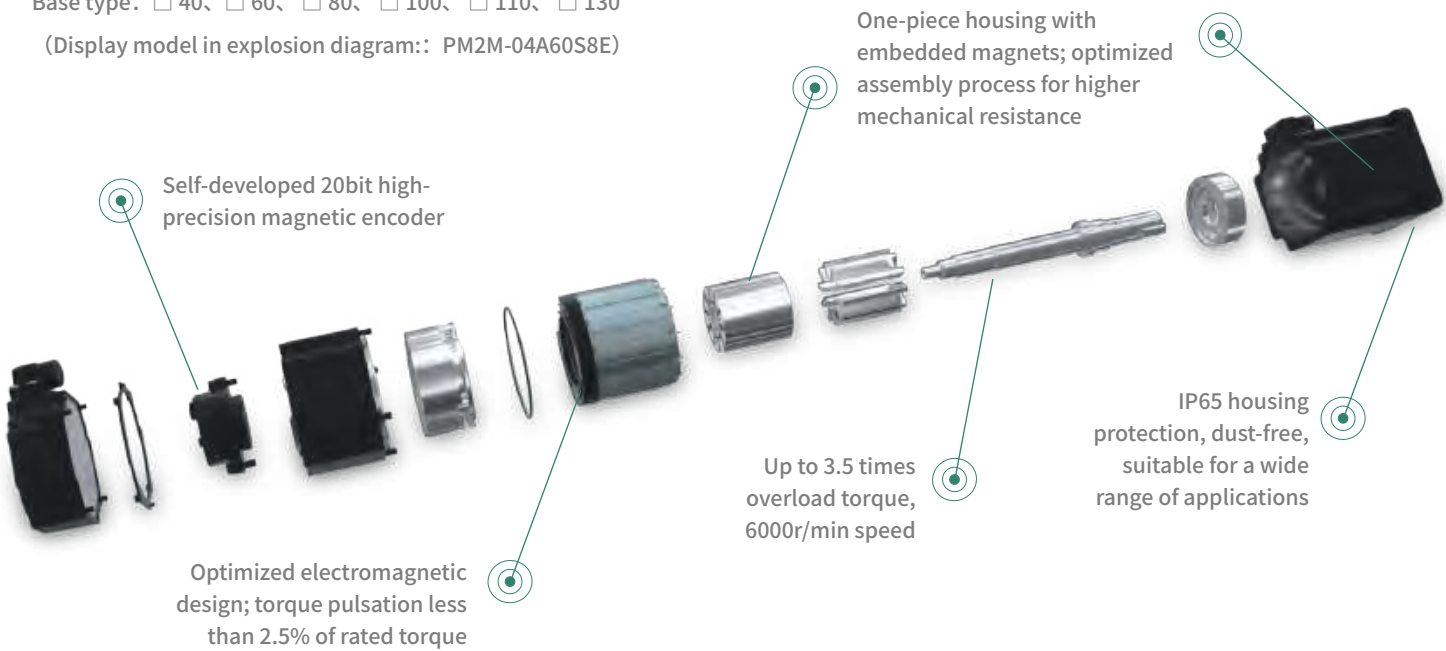
BD3S Standard AC Servo System
BD3E Economical AC Servo System



PM Series Servo Motors

Reliable and Powerful

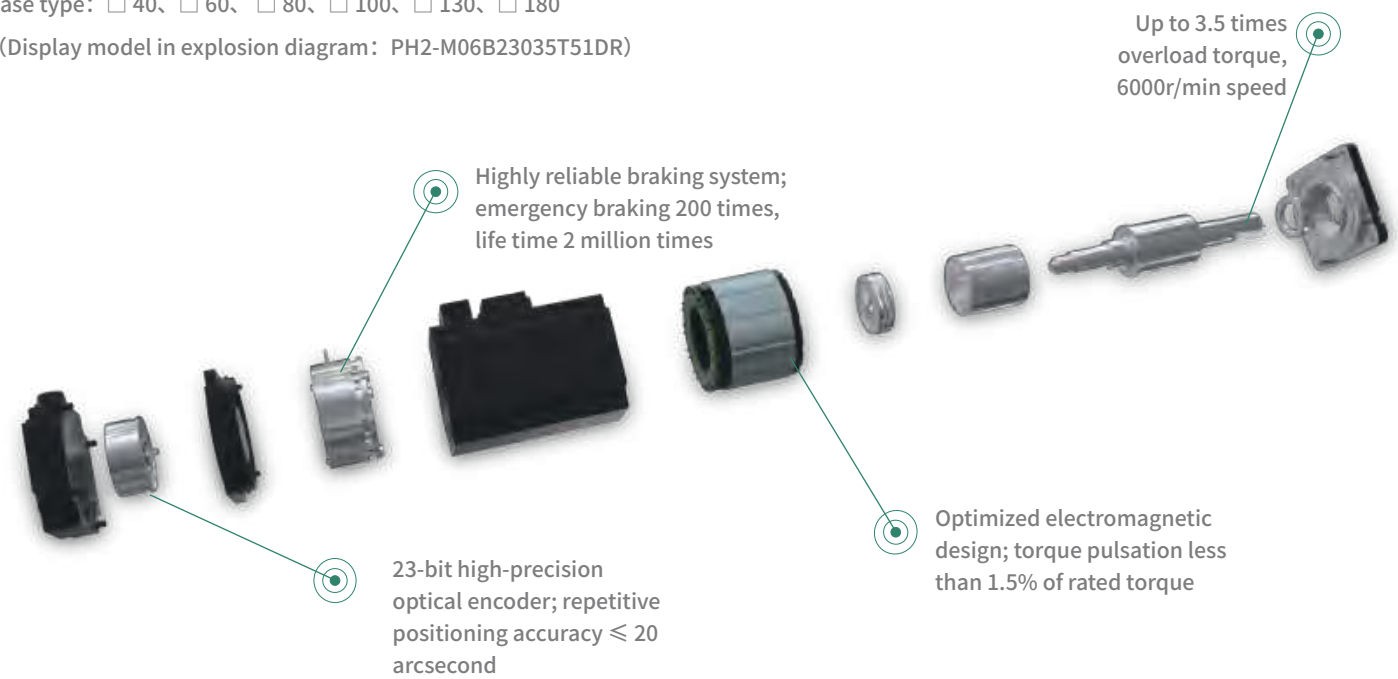
Power range: 0.05~3.0kW
Base type: 40、60、80、100、110、130
(Display model in explosion diagram:: PM2M-04A60S8E)



PH2 Series Servo Motors

Excellent performance, stable and reliable; wise choice for import replacement

Power range: 0.05~3kW
Base type: 40、60、80、100、130、180
(Display model in explosion diagram: PH2-M06B23035T51DR)



PM series servo drive naming rules

PM 2 M - 04 A 60 # S 8 S **
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Serial number	④ Input power supply voltage	⑧ Shaft end specification
PM PM2 series	Symbol Specifications	Symbol Specifications
	A 220VAC	8 Straight shaft with key and hole
	B 380VAC	
② Type of inertia	⑤ Machine base number	⑨ Options
Symbol Specifications	Symbol Specifications	Symbol Specifications
S Small inertia	40 40 Machine base	1 No option (without oil seal or brake)
M Medium inertia	60 60 Machine base	B With brake
H Large inertia	80 80 Machine base	S With oil seal
G Super large inertia	100 100 Machine base	E With oil seal and brake
	110 110 Machine base	
	130 130 Machine base	
③ Rated output power	⑥ Electromagnetic scheme	⑩ Special specifications
Symbol Specifications	Symbol Specifications	Symbol Specifications
A3 30W	No Default version	No Standard product
A5 50W	A Electromagnetic version A	** Customization, ** can be an indefinite digit combination of letters and numbers.
01 100W	B Electromagnetic version B	
02 200W		
04 400W		
08 750W		
09 850W		
10 1.0kW		
13 1.3kW		
15 1.5kW		
18 1.8kW		
20 2.0kW		
25 2.5kW		
29 2.9kW		
30 3.0kW		
	⑦ Encoder type	
	Symbol Specifications	
	S 20-bit single-turn absolute encoder (magnetic)	
	T 20-bit multi-turn absolute encoder (magnetic)	

PRDH2 series servo drive naming rules

PH2 - M 06 B 2 30 3 5 T5 0 D **
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① PH2 series	⑥ Rated speed	⑩ Brake
② Inertia	10 1000 rpm	0 Without brake
L Small inertia	15 1500 rpm	1 With brake
M Medium inertia	20 2000 rpm	
H Large inertia	30 3000 rpm	
③ Flange size	⑦ Shaft and oil seal	⑪ Interface type
04 40 mm	2 With key	D Wire harness+connector
06 60 mm	3 With key and oil seal	A Aircraft connector
08 80 mm		
10 100 mm		
13 130 mm		
18 180 mm		
④ Electromagnetic scheme	⑧ IP protection	⑫ Custom code
A Electromagnetic version A	5 IP65	** Customization, ** can be an indefinite digit combination of letters and numbers.
B Electromagnetic version B		
C Electromagnetic version C		
D Electromagnetic version D		
⑤ Rated voltage level	⑨ Feedback type	
2 220 VAC	T5 23-bit multi-turn optical encoder	
4 380VAC		