SERVOTRONIX | DORNA

高创产品总册

Servotronix Product Manual

精准控制 高效传动

Precise Control, Efficient Transmission

高精高速 科技创造美好未来

High precision and high speed, technology creates a better future.

高创传动科技开发(深圳)有限公司

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高创公众号　东菱公众号　资料下载

样册印制于2025年1月，欲了解最新产品技术信息，请访问Servotronix官方网站：www.servotronix.cn
The product manual was printed in January 2025. For the latest product technical information, please visit the official website of Servotronix: www.servotronix.cn

2025/1

美的工业技术
Midea Industrial Technology

美的集团工业技术事业群以科技为核心驱动力，聚合“绿色能源”与“工业核心部件”领域的核心科技力量，拥有GMCC美芝、Welling威灵、CLOU科陆、Hiconics合康、Servotronix高创、MR美仁、美垦、MOTINOVA、Toshiba东芝等多个品牌。为全球泛工业客户提供绿色、高效、智慧的产品和技术解决方案，为数十亿终端用户创造美好生活。

目前，美的工业技术全球智能工厂数量已达28家，并在中国、印度、日本等地建成33个研发试验中心，累计授权专利7800多件，持续加大对核心、前沿技术的研发投入，产品覆盖压缩机、电机、芯片、阀、减速机、汽车部件、自动化、高低压变频器、储能和散热部件等高精密核心部件产品。

以科技驱动万物为愿景，美的工业技术以创新科技，推动世界工业迈向高效、可靠、绿色、创新、开放的美好工业。

Midea Industrial Technology takes science and technology as the core driving force, providing green energy and core industrial components with green and efficient products and technical solutions. Midea Industrial Technology creates a better life for billions of end users worldwide with green, efficient, and intelligent products and technologies through a number of brands, including GMCC, Welling, Welling Auto Parts, CLOU, HICONICS, Servotronix, MR, MSCT, MOTINOVA, TOSHIBA.

Up to now, Midea Industrial Technology has 28 intelligent factories and has built 33 R&D centers in China, India, and Japan, with an accumulation of more than 7,800 authorized patents. Midea Industrial Technology continues to invest in core and cutting-edge technologies for high-precision products such as compressors, motors, chips, reducers, electronic expansion valves, auto parts, converters, servo systems, large-scale energy storage, household energy storage, and heat dissipation components.

Embracing the vision of "Technology drives everything", Midea Industrial Technology is committed to building a better industry together with innovative technology that is efficient, reliable, green, innovative, and open.

公司简介
Company Profile

企业 | Enterprise

高创运动控制公司，1987年成立于以色列,是一家专业研、产、销伺服及控制系统等产品的综合解决方案供应商，致力于在自动化领域不断取得突破，助力中国高端制造业快速发展。旗下拥有Servotronix高创及Dorna东菱两个品牌。

高创与东菱为自动化系统及设备供应商提供标准化与定制化运动控制解决方案，为全球30多个国家、1000多家客户提供专业服务，其中高创品牌在中国直驱领域持续领先。高创运动控制分别在以色列、上海、嘉善、顺德设置研发团队，是一家国际化公司。

Servotronix Motion Control Company, founded in Israel in 1987, is a comprehensive solution provider specializing in research, production, sales of servo systems and control systems, and is committed to making continuous breakthroughs in the field of automation and helping the rapid development of China's high-end manufacturing industry.

Under the Servotronix and Dorna brands, it designs and delivers standardized and customized motion control solutions for equipment manufacturers and automation system suppliers. At present, the company has provided professional services to more than 1,000 customers in more than 30 countries around the world, among which the high-innovation brand continues to lead the industry in the field of direct drive in China. Servotronix Motion Control has set up R&D teams in Israel, Shanghai, Jiashan and Shunde, and is an international company.

产品应用 | Product applications

我们的运动控制解决方案覆盖了大多数行业和自动化设备，如半导体、机器人、机械手、3C、激光、光伏、医疗、锂电池等行业。

Our motion control solutions cover most industries and automation equipment, including industries such as semiconductors, robotics, robotic arms, 3C, laser, photovoltaics，medical and lithium batteries.

发展历程
History

1987
高创运动控制成立
Servotronix Founded
SERVOTRONIX always in motion

1991
第一款基于工业PC的48轴运动控制器
The First Industrial Motion Controller

1992
首款数字伺服驱动器
The First Digital Servo Driver

1996
CD系列伺服驱动器
CD Series Servo Driver

1998
Sercos多轴运动控制器
Sercos Multi-Axis Motion Controller

2006
东菱成立
Dorna Was Established
DORNA

2007
第一台伺服驱动器研发成功
The first servo drive Successful research and development

2008
时任国家副主席习近平同志来东菱调研指导
Xi Jinping, The Vice President Of China, Came To DORNA for Research And Guidance

2010
伺服驱动器项目获得国家创新基金支持项目、浙江省重大重点科技专项
The servo drive project has been supported by the National Innovation Fund and a major key science and technology project in Zhejiang Province

2011
第4代CDHD伺服驱动器
Fourth Generation CDHD Servo Driver

2012
高性能B1伺服驱动器研发成功
High-performance B1 servo drives Successful research and development

2013
高性能拼块式电机研发成功
High-Performance Block-Typemotor Developed Successfully

2017
【13-16年期间】
· sensAR 绝对式磁性编码器
· stepIM集成式闭环步进电机
· softMC 运动控制器
· PRO2伺服电机
【During 13-16 years】
- sensAR Absolute Magnetic Encoder
- StepIM Integrated Closed-loop Stepper Motor
- SoftMC Compact Motion Controller
- PRO2 Servo Motor

· CDHD2 第5代伺服驱动器
· PRHD2 伺服电机
- CDHD2 5th generation Servo Driver
- PRHD2 Servo Motor

2018
高性能高颜值DS1、DM1研发成功
High-performance and high-value DS1,DM1 was successfully developed

2019
新品DS2研发成功，开启汉文化系列产品
The new DS2 was successfully developed Opened a series of Han culture products

2020
与高创运动控制公司融合
with high-tech motion control Corporate convergence

2021
公司整合

· DS1 系列产品
· LDHD2 直线驱动器
- DS1 Series Products
- LDHD2 Servo Driver

· DS2P 系列产品
· BDHDE 伺服驱动器
· PH2-R系列伺服电机
- DS2P Series Products
- BDHDE Servo Driver
- PH2-R Series Motor

17位磁编码器
17 Bit Magnetic Encoder

2022
· CDHDE 伺服驱动器
· CDLB 单轴机器人
· softMC 703 运动控制器
- CDHDE Servo Driver
- CDLB Single Axis Robot
- softMC 703 Compact Motion Controller

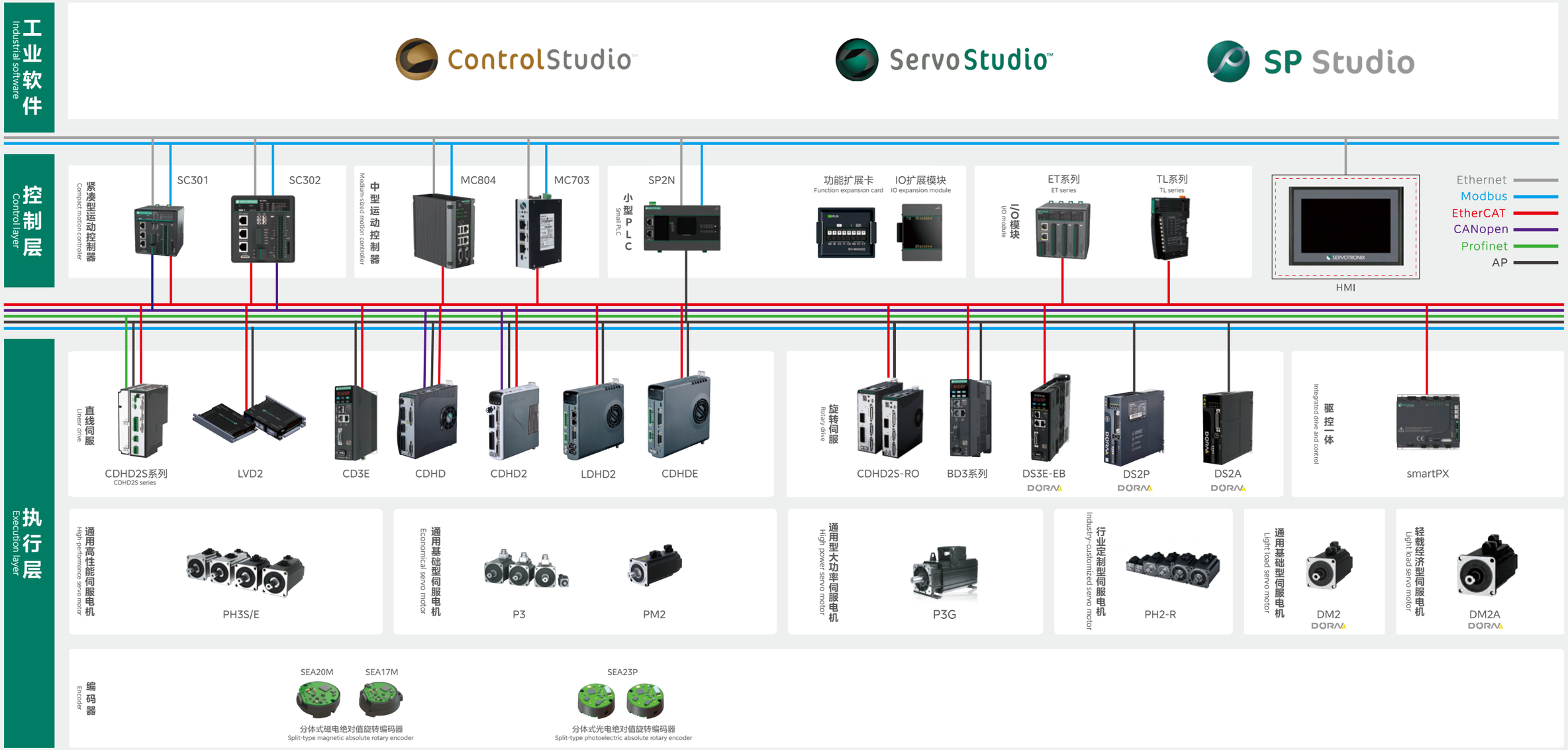
· BD3系列交流伺服系统
· SC301控制器
· MC804控制器
· CDHD2S高性能伺服驱动器
- BD3 series AC servo system
- SC301 Motion Controller
- MC804 Motion Controller
- CDHD2S Servo Driver

2023
· BDHDE伺服驱动器增强版
· DS2P伺服驱动器增强版
· SC301运动控制器
· ET系列I/O扩展模块
- BDHDE Servo Driver Plus
- DS2P Servo Driver Plus
- SC301 Motion Controller
- ET Series I/O Expansion Module

2024
· CD3E伺服驱动器
· smartPX多合一驱控一体机
- CD3E Servo Driver
- smartPX Controllers with Integrated Servo Drives

2025
· CDHD2S-RO旋转伺服
· DS2A+DM2A交流伺服系统
· LVD2低压伺服驱动器
- CDHD2S-RO rotary servo
- DS2A+DM2A AC servo system
- LVD2 LV Servo Driver

产品架构
Product structure



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DORA

高创运动控制器
产品定位

Servotronix motion controller
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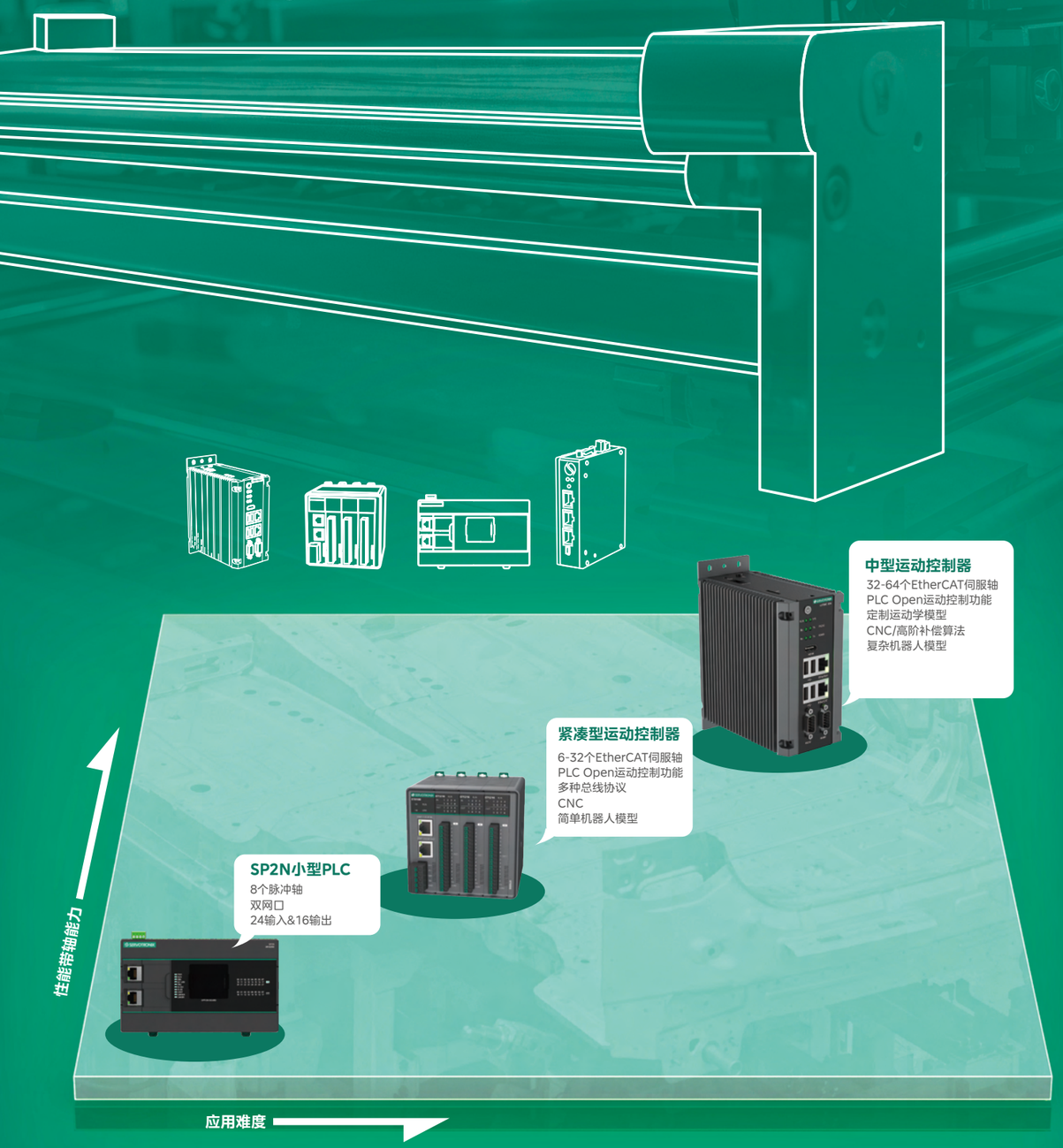


运动控制器命名规则
Motion controller naming convention

SC - E 08 - 3 01 - 0 1 03 □□
1 2 3 4 5 6 7 8 9

SC
1 系列号 S/N

标识字母 Mark	含义 Meaning
MC	运动控制器 Motion controller
SC	softmc紧凑型 Compact SoftMC
DC	专用控制器 Dedicated controller

E
2 现场总线 Fieldbus

符号 Mark	规格 Specification
E	EtherCAT
C	CanOpen
B	EtherCAT & CanOpen

08
3 轴数 Number of axes

符号 Mark	含义 Meaning
04	支持4轴 Supports 4 axes
06	支持6轴 Supports 6 axes
08	支持8轴 Supports 8 axes
16	支持16轴 Supports 16 axes
32	支持32轴 Supports 32 axes

3
4 CPU

符号 Mark	规格 Specifications
3	ARM
7	X86 以色列研发 Developed in Israel
8	X86 中国研发 Developed in China

01
5 CPU平台 CPU platform

（1）ARM

符号 Mark	规格 Specification
01	A9单核 A9 single-core
02	A9双核 A9 dual-core
04	A55双核 A55 dual-core
05	A9四核 A9 quad-core
07	A53四核 A53 quad-core

（2）X86

符号 Mark	规格 Specification
03	X86-Atom
04	X86-i3
05	X86-i5
07	X86-i7

0
6 操作系统 Operating system

符号 Mark	规格 Specifications
0	Linux
1	Windows

1
7 软件 Software

符号 Mark	规格 Specifications
0	ControlStudio
1	Codesys
2	ControlStudio Plus
3	SpStudio

03
8 许可证 License

符号 Mark	规格 Specifications
00	ControlStudio/ ControlStudio Plus
01	PLC
02	PLC+网络可视化 Network Visualization PLC + Network visualization
03	SoftMotion
04	SoftMotion+网络可视化 Network Visualization SoftMotion + Network visualization
05	CNC+机器人+网络可视化 CNC + Robot + Network visualization

□□
9 特殊规格 Special/Custom

符号 Mark	规格 Specification
空 Blank	标准 Standard
3C	3C
SC	半导体 Semiconductor
LB	锂电 Lithium battery
IR	机器人 Robot
MP	机械手 Manipulator
WM	木工 Woodworking machinery
PV	光伏 Photovoltaic
LA	激光 Laser

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

小型PLC控制器命名规则
Compact PLC controller naming convention

SP 2 N - 2416 QN D -
1 2 3 4 5 6 7

SP
1 系列号 S/N

标识字母 Mark	含义 Meaning
SP	Servotronix PLC

2
2 CPU平台 CPU Platform

符号 Mark	规格 Specification
2	ARM M4

N
3 区分 Classification

符号 Mark	含义 Meaning
P	Primary
S	Standard
N	Network
M	Motion

2416
4 输入点数/输出点数 Input points/Output points

符号 Mark	规格 Specification
0806	8输入&6输出 8 Inputs & 6 Outputs
1208	12输入&8输出 12 Inputs & 8 Outputs
1812	18输入&12输出 18 Inputs & 12 Outputs
2416	24输入&16输出 24 Inputs & 16 Outputs

QN
5 输出类型 Output Type

符号 Mark	规格 Specification
QN	NPN
QP	PNP
QR	Relay

D
6 供电类型 Power supply type

符号 Mark	规格 Specification
A	AC110-220V
D	DC24V

□□
7 特殊规格 Special/Custom

无 None

SC300系列
SC300 Series

紧凑型运动控制器
Compact motion controller

搭载CODESYS实时核，
支持EtherCAT现场总线
Equipped with CODESYS real-time kernel, supports EtherCAT fieldbus

2ms可控制16个EtherCAT伺服轴；
4ms可控制32个EtherCAT伺服轴
2ms can control 16 EtherCAT servo axes;
4ms can control 32 EtherCAT servo axes

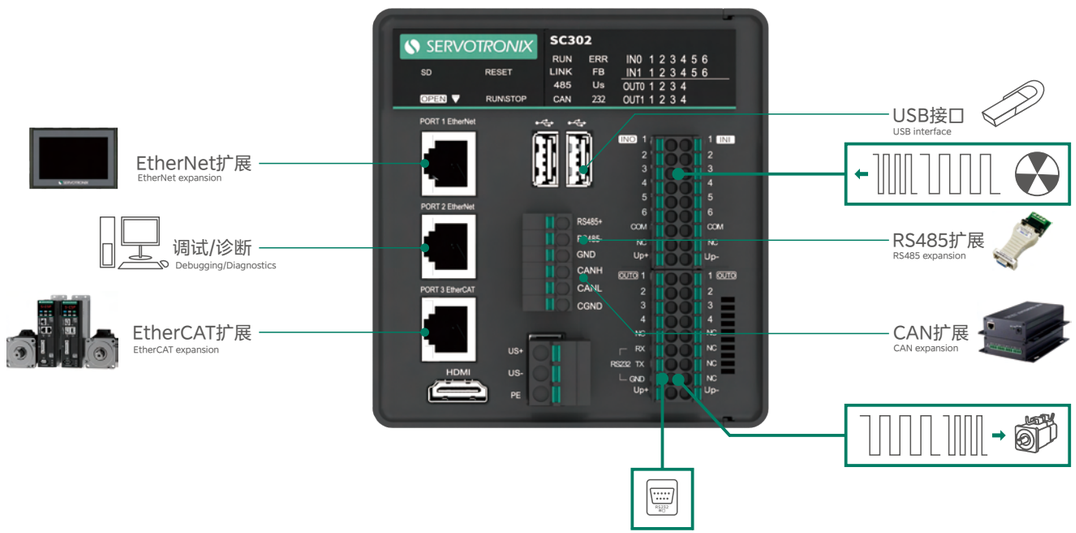
支持本地扩展16个IO模块；
支持最远100M远程IO扩展
Supports local expansion with up to 16 I/O modules;
Supports remote I/O expansion up to 100M

支持点位运动控制功能，速度同步、
位置同步功能，G代码插补功能
（直线插补/圆弧插补/机器人坐标转换）
Supports point-to-point motion control, speed synchronization, position synchronization, and G-code interpolation functions (linear interpolation, arc interpolation, robot coordinate conversion)

支持8点高速输出&8点高速输入，
最高频率200KHz
Supports 8 high-speed outputs & 8 high-speed inputs, with a maximum frequency of 200kHz

支持RS485/232、CAN等多种通讯协议
Supports various communication protocols such as RS485/232 and CAN

接线图
Wiring Diagram



产品规格参数
Product specifications

规格参数 Specifications	描述 Description
掉电保持功能 Power-down memory retention	有，掉电保持数据容量1Mbyte Yes, data capacity of power-down memory retention is 1Mbyte.
时钟 Clock	内置时钟记录时间，依靠电池保存(可更换电池) Built-in clock records time, powered by a replaceable battery for retention.
操作系统 Operating system	Linux
控制软件 Control software	CODESYS
以太网口 Ethernet port	支持EtherCAT，现场总线通讯，支持ModbusTCP，OPC UA通讯 Supports EtherCAT, fieldbus communication, Modbus TCP, and OPC UA communication
支持串口 Supports serial communication	支持1路RS485 Supports 1 channel RS485
CAN通讯 CAN communication	支持CANopen总线 Supports CANopen bus
支持SD卡 Supports SD card	用户程序上下载及固件升级 Firmware upgrades can be downloaded from the user program
带轴能力 Axis capability	2ms可控制8个EtherCAT伺服轴；4ms可控制16个EtherCAT伺服轴 2ms can control 8 EtherCAT servo axes; 4ms can control 16 EtherCAT servo axes
本体自带I/0 Built-in I/O	普通I/O输入输出共32个: Standard I/O: 32 total inputs/outputs ① 16个漏型(NPN)输入数字量通道：符合IEC61131-2type1/3 16 NPN-type input digital channels: Compliant with IEC61131-2 type 1/3 ② 16个漏型(NPN)输出数字量通道：符合IEC61131-2，额定负载电流500mA/每通道 16 NPN-type output digital channels: Compliant with IEC61131-2, rated load current 500 mA per channel. ③ 支持负载类型：电阻负载、感性负载、电灯负载 Supported load types: resistive, inductive, and lighting loads.
工作温度/储存温度 Operating temperature / Storage temperature	-20...+55°C/-40...+85°C
相对湿度 Relative humidity	95%(无凝结) 95% (no condensation)
防护等级 Protection rating	IP 20
尺寸(宽x高x深) Dimensions (width x height x depth)	91mmx112mmx95mm(含接线头深度为：110mm) 91 mm x 112 mm x 95 mm (including wiring head, depth: 110 mm)

产品选型配置
Product selection configuration

产品型号 Product model	描述 Description
SC-E08-301-0103	2ms8轴，4ms16轴 点位运动控制，多轴速度/位置同步，追剪/电子凸轮表 2ms for 8 axes, 4ms for 16 axes: point-to-point motion control, multi-axis speed/position synchronization, tracking shear/electronic cam meter
SC-E08-301-0104	2ms8轴，4ms16轴 点位运动控制，多轴速度/位置同步，追剪/电子凸轮表 + WebHMI 2ms for 8 axes, 4ms for 16 axes: point-to-point motion control, multi-axis speed/position synchronization, tracking shear/electronic cam meter + WebHMI
SC-E08-301-0105	2ms8轴4ms16轴 CNC、机器人坐标转换、WebHMI功能 2ms for 8 axes, 4ms for 16 axes: CNC, robot coordinate conversion, WebHMI function
SC-E08-302-0103	2ms16轴4ms32轴 点位运动控制，多轴速度/位置同步，追剪/电子凸轮表 2ms for 16 axes, 4ms for 32 axes: point-to-point motion control, multi-axis speed/position synchronization, tracking shear/electronic cam meter
SC-E08-302-0104	2ms16轴4ms32轴 点位运动控制，多轴速度/位置同步，追剪/电子凸轮表 + WebHMI 2ms for 16 axes, 4ms for 32 axes: point-to-point motion control, multi-axis speed/position synchronization, tracking shear/electronic cam meter + WebHMI
SC-E08-302-0105	2ms16轴4ms32轴 CNC、机器人坐标转换、WebHMI功能 2ms 16 axes 4ms 32 axes CNC, robot coordinate conversion, WebHMI function

MC804

中型运动控制器
Medium-sized motion controller

Linux/Windows
双系统定制化选择
Customized selection of
Linux/Windows dual system

优化后的Linux操作系统实时
性高、精简且运行稳定
The optimized Linux operating system
is real-time,compact and stable

精简的Windows操作系统，
助力工程师实现软硬件仿真
Simplified Windows operating system helps engineers
realize software and hardware simulation

1ms32轴；2ms64轴多轴同步，
任务抖动低于50us
1 ms 32 axis; 2 ms 64 axis multi-axis
synchronization, task jitter less than 50us

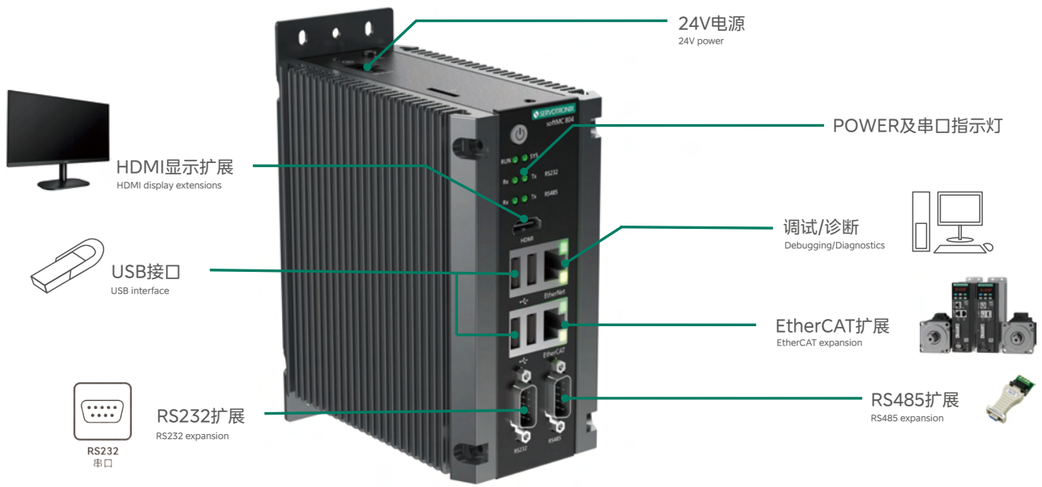
支持点位运动控制功能，
速度同步、位置同步功能，
Support point-to-point motion control function,
speed synchronization and position synchronization function,

G代码插补功能（直线插补/圆弧插补
/机器人坐标转换）
G code interpolation function (linear interpolation/
arc interpolation/robot coordinate conversion)

多个任务可以运行在不同的内核中、
也可以相互分享数据，
Multiple tasks can run in different cores and share data with each other,
Make full use of processor performance to meet various applications

充分利用处理器性能满足各种应用
Support to run CAM software and connect the
display through HDMI interface,

接线图
Wiring Diagram



产品规格参数
Product specifications

规格参数 Specifications	描述 Description
操作系统 Operating system	LinuX
控制软件 Control software	CODESYS
CPU	2.0GHzIntel J3355 双核处理器 2.0GHz Intel J3355 dual-core processor
RAM	4GB
储存 Storage	64GB
Ethernet Port	2xIntel GbEEtherNet:RJ45 端口，支持 Modbus TCP,OPCUA 通讯:EtherCAT:RJ45 端口，支持 EtherCAT,现场总线通讯; 2xIntel GbE Ethernet: RJ45 ports, supporting Modbus TCP, OPC UA communications; EtherCAT: RJ45 port, supporting EtherCAT and fieldbus communication;
USB	2xUSB3.0;2xUSB2.0
COM 1&2	1xRS485/1x RS-232
HDMI	最高分辨率 4096x2160@30HZ Maximum resolution: 4096x2160@30HZ
安装方式 Installation method	DIN 导轨安装/壁挂式安装 DIN guide rail installation / Wall-mounted installation
工作温度/储存温度 Operating temperature / Storage temperature	20至60°C/-40至80°C 20°C to 60°C/-40°C to 80°C
相对湿度 Relative humidity	95%(无凝结) 95% (no condensation)
防护等级 Protection rating	IP 20
尺寸 Dimensions	145 mm x 145 mmx75 mm (WxHxD)
认证 Authentication	CE/FCC Class A/CCC
通信接口及协议 Communication interfaces and protocols	① RS-232C*1，支持Modbus RTU 主/从站协议，以及自由协议，非隔离； RS-232C x1, supports Modbus RTU master/slave protocol and free protocol, non-isolated ② RS-485*1，支持Modbus RTU主/从站协议，以及自由协议，隔离型； RS-485 x1, supports Modbus RTU master/slave protocol and free protocol, isolated ③ PRG*1，TYPE-C形式高速串行通信接口, PLC应用程序下载、变量监视、在线调试、固件升级； PRG x1, TYPE-C form high-speed serial communication interface, for PLC program download, variable monitoring, online debugging, and firmware upgrades ④ ETH*2，10/100Mbps，交换式，支持TCP/UDP协议，Modbus TCP主从及自由协议，server/client支持，出厂默认IP 地址 192.168.1.66，子网掩码255.255.255.0；可用于应用程序下载、变量监视、在线调试、固件升级等； ETH x2, 10/100 Mbps, switchable, supports TCP/UDP protocol, Modbus TCP master/slave, and free protocol, server/client supported. Default IP address: 192.168.1.66, subnet mask: 255.255.255.0; They can be used for application program download, variable monitoring, online debugging, and firmware upgrades ⑤USB-HOST*1，USB2.0全速，支持通过U盘固件更新及应用程序更新 USB-HOST x1: USB 2.0 full speed, supports firmware and application program updates via USB drive
实时时钟 Real-time clock	掉电后由纽扣电池供电；板载式电池座，电池不随机提供，规格为CR2032 Can be powered by a button battery after power failure
立即输出 Immediate output	支持 Support
程序加密 Program encryption	支持 Support

产品选型配置
Product selection configuration

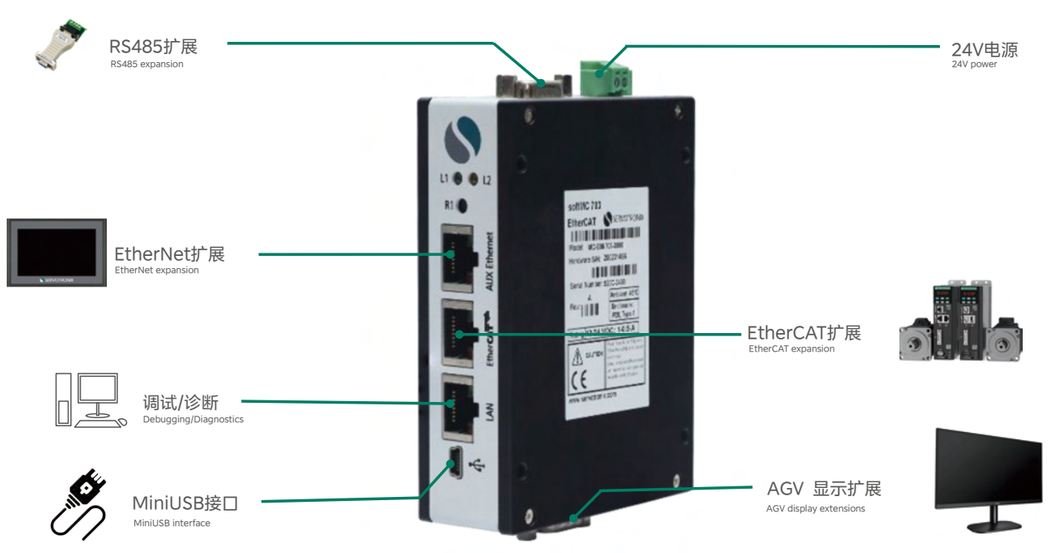
产品型号 Product model	描述 Description
MC-E16-804-0103	点位运动控制，多轴速度/位置同步，追剪/电子凸轮表 Point-to-point motion control, multi-axis speed/position synchronization, tracking shear/electronic cam meter
MC-E16-804-0104	点位运动控制，多轴速度/位置同步，追剪/电子凸轮表+WebHMI功能 Point-to-point motion control, multi-axis speed/position synchronization, tracking shear/electronic cam meter + WebHMI function
MC-E16-804-0105	CNC、机器人坐标转换、WebHMI功能 CNC, robot coordinate conversion, WebHMI function

MC703

中型运动控制器
Medium-sized motion controller

- 开放式、模块化的软件环境
  Open and modular software environment
- 操作系统Linux高实时性
  Support high real-time Linux operating system
- 以太网人机接口
  Support Ethernet human interface
- 总线 支持EtherCAT
  Support EtherCAT fieldbus
- 总线 支持EtherCAT
  Support EtherCAT fieldbus
- 可控制最多64个轴
  Support up to 64 axes
- 完善的机器人软件包
  Robotics Studio toolkit.
- 可以为客户定制软件解决方案
  Customized software design

接线图
Wiring Diagram



产品规格参数
Product specifications

规格参数 Specifications	描述 Description
CPU	1.33GHz|Intel Atom Bay-Trail-IE3825 双核处理器 1.33GHz Intel Atom Bay-Trail-IE3825 dual-core processor
RAM	DDR3L SDRAM 2GB 内存 DDR3L SDRAM 2GB memory
储存 Storage	mSATA 2 GB (内部) mSATA 2GB (internal)
Ethernet port	3x Intel GbE ① EtherCAT: RJ45 端口，用于实时运动控制 RJ45 port for real-time motion control ② LAN: RJ45 端口，用于主机通讯; RJ45 port for host communication ③AUX Ethernet: RJ45 端口，用于示教器HMI及其他 RJ45 port for teach pendant HMI and others
USB	Mini-USB
COM 1&2	RS485 port
VGA	D15插针式接口 D15 pin-style interface
安装方式 Installation method	DIN导轨安装 DIN guide rail installation
工作温度 Operating temperature	0°C至45°C 0°C to 45°C
尺寸 Dimensions	30 mm x106 mmx85 mm(WxHxD)
认证 Authentication	CE

产品选型配置
Product selection configuration

产品型号 Product model	描述 Description
MC-E08-703-000M	① 单轴/多轴运动（移动、点动） Single-axis/multi-axis motion (moving, jogging) ② 电子凸轮表、电子齿轮速度同步功能 Electronic cam table, electronic gear speed synchronization function ③ G代码插补指令（移动、圆弧） G-code interpolation commands (move, arc) ④ 模拟运动（离线程序仿真） Simulation of motion (offline program simulation) ⑤ 3D补偿表功能 3D compensation table function ⑥ 内置机器人运动学和动力学模型 Built-in robot kinematics and dynamics models ⑦ 传送带跟踪功能 Conveyor belt tracking function

SP2N系列
SP2N series

小型PLC
Small PLC

自动扫描获取硬件拓扑，地址自动设置，无需手动设定
Automatic scanning to obtain hardware topology, address automatic setting, no need for manual setting

双网口设计，通信、调试同时进行
Dual network port design, simultaneous communication and debugging

U盘即插即用，随时随地更新程序
USB drive plug and play, updating programs anytime and anywhere

支持8点高速输出&8点高速输入，最高频率200KHz
Supports 8-point high-speed output&8-point high-speed input, with a maximum frequency of 200KHz

配置实时时钟，大容量存储，支持掉电保持
Configure real-time clock, large capacity storage, and support power down retention

本地可扩展16个I/O模块
Local extended 16 I/O modules

产品选型配置
Product selection configuration

产品型号 Product model	描述 Description
SP2N-2416QND	24点输入16点输出，8点高速输入&8点脉冲输出，双以太网接口 24 inputs, 16 outputs, 8 high-speed inputs & 8 pulse outputs, dual Ethernet interfaces CPU基本单元NPN输出: 24VDC供电 CPU basic unit NPN output: 24VDC power supply
SL2-ET1600	16通道NPN/PNP兼容型输入 16-channel NPN/PNP compatible input
SL2-QN0016	16通道NPN输出 16-channel NPN output
SL2-QP0016	16通道PNP输出 16-channel PNP output
SL2-AE0400	4通道纯模拟量输入 4-channel pure analog input
SL2-AQ0004	4通道纯模拟量输出 4-channel pure analog output
SF2-MA0202	2通道模拟量输入2通道模拟量输出 2-channel analog input 2-channel analog output

产品规格参数
Product specifications

规格参数 Specifications	描述 Description
外部电源输入 External power input	典型值：24VDC； 有效范围：(19.2~30)VDC，非隔离，防反接，过流保护 Typical value: 24VDC; Effective range: (19.2 ~ 30) VDC, non-isolated, reverse polarity protection, overcurrent protection
电源输出 Power output	传感器电源，24VDC，≤500mA Sensor power supply, 24VDC, <500 mA
24VDC总功耗 24VDC total power consumption	350mA（不含传感器电源输出） 350 mA (excluding sensor power output)
Status indicator 状态指示	① 工作指示灯：PWR、RUN、ERR; ① Work indicators: PWR, RUN, ERR; ② 通信指示灯：RS-232C、RS-485、PRG、HOST、ETH1_LINK/ACT、ETH1_SPEED，ETH2_LINK/ACT、ETH2_SPEED; ② Communication indicators: RS-232C, RS-485, PRG, HOST, ETH1_LINK/ACT, ETH1_SPEED, ETH2_LINK/ACT, ETH2_SPEED; ③ 功能指示灯：BAT_LOW, 纽扣电池电量低指示; ③ Function indicators: BAT_LOW, low battery warning; ④ 扩展卡指示灯（若存在）：运行指示灯; ④ Expansion card indicators (if available): Run indicator; ⑤ 通道输入/输出状态指示灯：驱动状态时亮，否则灭 ⑤ Channel input/output status indicators: On when in drive state, otherwise off
程序执行方式 Program execution mode	循环、中断、定时可选 Cycle, interrupt, and timing options
基本指令执行速度 Basic instruction execution speed	50ns
程序容量 Program capacity	256KB
数据容量 Data capacity	128KB（M区64KB， 变量区64KB） 128KB (M zone 64KB, variable zone 64KB)
掉电保存容量 Power-down memory retention capacity	最大48KB，可配置 Maximum 48KB, configurable
编程语言支持 Supported programming languages	符合IEC61131-3标准，LD（梯型图）、ST（结构化文本） Compliant with IEC61131-3 standard, LD (Ladder Diagram), ST (Structured Text)
输入通道数 Number of input channels	24点，数字量PNP/NPN兼容 （含8点高速输入） 24 PNP/NPN compatible channels (including 8 high-speed inputs)
输出通道数 Number of output channels	16点，数字量NPN（漏）型晶体管（含8点高速输出） 16 NPN (sinking) type transistor digital outputs (including 8 high-speed outputs)
高速计数 High-speed counting	8点，频率最大200kHz；支持A/B相（1/2/4倍频，4组，100kHz）；支持单脉冲计数（8组）；支持高速计数比较一致中断、输出 8 frequency channels, max 200kHz; Supports A/B phase (1/2/4x frequency, 4 groups, 100kHz); Supports single pulse counting (8 groups);
高速脉冲输出 High-speed pulse output	频率最大200kHz, 支持单脉冲（8组）、脉冲+方向（8组）、A/B相（4组） Supports high-speed counting with comparison interrupts, output frequency up to 200kHz; supports single pulse (8 groups), pulse + direction (8 groups), and A/B phase (4 groups)
运动控制 Motion control	符合PLCopen运动控制规范，支持相对定位、绝对定位，支持梯形、S形加减速、支持多种回原方式 Compliant with PLCopen motion control standards; supports relative positioning, absolute positioning; supports trapezoidal and S-curve acceleration/deceleration; supports multiple return-to-origin methods
脉冲输入捕获 Pulse input capture	支持，至多8个 Supports up to 8 inputs
中断类型 Interrupt types	比较一致中断，至多8个；外部输入中断，8个，支持上升沿、下降沿、双边沿触发 Up to 8 comparison interrupt; 8 external input interrupts, supporting rising edge, falling edge, and both-edge triggers
本地扩展模块 Local expansion module	≤16个，SL2系列，多型号可选 ≤16, SL2 series, multiple models available
扩展卡 Expansion card	≤1个，SF2系列 ≤1, SF2 series

接线图
Wiring Diagram

ET系列
ET Series

I/O模块
I/O Module

EtherCAT标准从站模块，
适配标准EtherCAT主站设备
EtherCAT standard slave module, adapted to standard EtherCAT master equipment

功能丰富，可满足不同应用场合需求
Rich functions to meet the needs of different applications

模块/通道状态灯，易于诊断
Module/channel status light for easy diagnosis

免工具接线，前置连接器，便于维护
Tool free wiring, front connector, easy to maintain

产品规格参数
Product specifications

产品型号 Product model	描述 Description
Et0100	EtherCAT端子耦合器 EtherCAT coupler
ET1216	8通道数字量输入模块,8通道数字量输出模块NPN 8-channel digital input module, 8-channel digital output module NPN
ET1316	8通道数字量输入模块8通道数字量输出模块PNP 8-channel digital input module 8-channel digital output module PNP
Et9000	终端盖板模块 Terminal cover module

TL 系列
TL Series

I/O模块
I/O Module

作为EtherCAT现场总线可扩展模块，
适配所有标准EtherCAT主站设备
As an EtherCAT fieldbus expandable module, it is suitable for all standard EtherCAT master devices

支持数字量、模拟量、温度模块、
编码器信号采集等功能
Supports digital, analog, temperature module, encoder signal acquisition and other functions

通道数种类多，适合不同应用场合选用
There are many types of channels, suitable for different applications

产品规格参数
Product specifications

规格参数 Product model	描述 Description
TL0100	EtherCAT 网络适配器 EtherCAT network adapter
TL9000	终端模块 Terminal module
TL1016	16 通道数字量输入，PNP/24V有效/漏型 16-channel DI, PNP/24V active/leakage pattern
TL1116	16 通道数字量输入，NPN/0V有效/源型 16-channel DI, NPN/0V active/source pattern
TL2016	16 通道数字量输出，0.5A/PNP/24V有效/源型 16-channel DO, 0.5A/PNP/24V active/source pattern
TL2116	16 通道数字量输出，0.5A/NPN/0V有效/漏型 16-channel DO, 0.5A/NPN/0V active/leakage pattern
TL1516	8通道数字量输入，PNP/24V有效/漏型 NPN/0V有效/源型 8-channel DI, PNP/24V active/leakage pattern NPN/0V active/source pattern 8通道数字量输出，0.5A/PNP/24V有效/源型 8-channel DO, 0.5A/PNP/24V active/source pattern
TL3104	4通道模拟量-电压输入，0~5VDC/0~10VDC/±5VDC/±10VDC, 16位 4-channel analog voltage input, 0~5VDC/0~10VDC/±5VDC/±10VDC, 16-bit
TL3108	8通道模拟量-电压输入，0~5VDC/0~10VDC/±5VDC/±10VDC, 16位 8-channel analog voltage input, 0~5VDC/0~10VDC/±5VDC/±10VDC, 16-bit
TL3204	4通道模拟量-电流输入，0&4-20mA，16位 4-channel analog current input, 0&4-20mA, 16-bit
TL3208	8通道模拟量-电流输入，0&4-20mA，16位 8-channel analog current input, 0&4-20mA, 16-bit
TL4104	4通道电压输出，0~5VDC/0~10VDC/±5VDC/±10VDC,16位 4-channel voltage output, 0~5VDC/0~10VDC/±5VDC/±10VDC, 16-bit
TL4204	4通道模拟量电流输出，0&4-20mA/16位 4-channel analog current output, 0&4-20mA/16-bit
TL3703	3通道热电阻输入，RTD-PT100 通道非隔离 3-channel thermal resistance input, RTD-PT100 channel non-isolated
TL3704	4通道热电阻输入，RTD-PT100 通道隔离 4-channel thermal resistance input, RTD-PT100 channel isolated
TL3803	3通道热电阻输入，RTD-PT1000 3-channel thermal resistance input, RTD-PT1000
TL3904	4通道热电偶输入，TC-J / K/ E / T / S / R / B / N / C型 4-channel thermocouple input, TC-J / K / E / T / S / R / B / N / C types
TL5102	2通道编码器输入，5V单端 ,输入频率≤1.5MHz 2-channel encoder input, 5V single-ended, input frequency ≤ 1.5MHz
TL5202	2通道编码器输入，24V单端 ,输入频率≤500KHz 2-channel encoder input, 24V single-ended, input frequency ≤ 500KHz
TL5302	2通道编码器, SSI 输入,5V 差分，输入频率≤2MHz 2-channel encoder, SSI input, 5V differential, input frequency ≤ 2MHz
TL5402	2通道编码器, 差分输入,5V 差分，输入频率≤10MHz 2-channel encoder, differential input, 5V differential, input frequency ≤ 10MHz
TL6001	1通道串口模块，Modbus主站/Modbus从站/自由协议 1-channel serial port module, Modbus master/Modbus slave/free protocol
TL9410	电源扩展模块，5V: 5V/2A FV:24V/8A Power expansion module, 5V: 5V/2A FV: 24V/8A

典型行业应用
Typical industry applications

半导体行业 Semiconductor industry

6寸半自动划片机
6 inch semi-automatic dicing machine

划片机主要应用于晶圆通过磨砂处理后，切割成一个个独立的芯片，为后续工序做准备。

The dicing machine is mainly used in the wafer after frosting and cutting into individual chips to prepare for the subsequent process.

设备描述 Core station

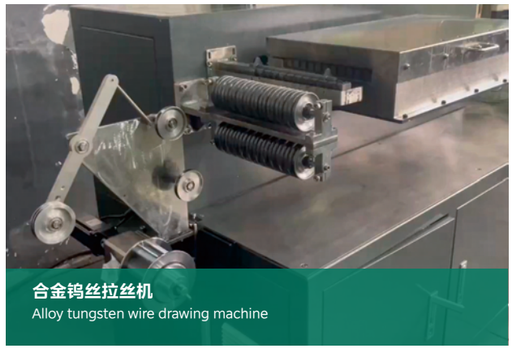
远程读取和解析上位机生成的轨迹文件(Dat)，上位机与下位机大量数据需要高速通讯；上位机视觉系统读取划片轨迹数据生产为划切轨迹文件，MC703通过远程文件共享方式读取该文件，进行解析。对数据传输的速度和稳定性有高要求。
高精度测高和快速停止
划片之前，需要通过自动测高来检测平台的高度。测高的时候，主轴是高速旋转的，测高精度对加工质量非常关键。测高完成后能否快速停止Z轴并上抬，也非常重要。停止距离过长，切刀会损伤台面。
划切精度极高
①Y轴单步精度± 0.003mm；② Z轴重复精度0.002mm；③ E轴定位精度±30"；

Remotely read and parse the trajectory file (DAT) generated by the upper computer, and a large amount of data between the upper computer and the lower computer requires high-speed communication; The vision system of the host computer reads the scribing trajectory data and produces it as a scribing trajectory file, and the MC703 reads the file through remote file sharing and analyzes it. There are high requirements for the speed and stability of data transmission.
High-precision altimetry and fast stops
Before scribing, the height of the platform needs to be detected by means of automatic altimetry. When measuring height, the spindle rotates at high speed, and the high accuracy of measurement is very important for machining quality. It is also very important to be able to quickly stop the Z-axis and lift it up after the altimetry is completed. If the stop distance is too long, the cutter will damage the countertop.
Extremely high scribing accuracy
(1) Y-axis single-step accuracy± 0.003mm; (2) The repeatability of the Z-axis is 0.002mm;(3) The positioning accuracy of the E-axis is ±30";

配置清单 Performance

SoftMC703 Codesys	X 1	IO模块	若干
CDHD、CDHD2	X 4	第三方视觉上位机	X 1

机床行业 Machine tool industry



合金钨丝拉丝机
Alloy tungsten wire drawing machine

用于制作光伏线切割设备用的金刚线，把粗钨丝拉成细钨丝。

The diamond wire used to make photovoltaic wire cutting equipment is used to draw the thick tungsten wire into a fine tungsten wire.

设备描述 Core station

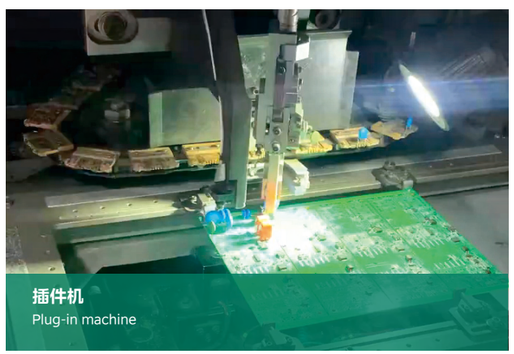
收放卷张力控制
出线最小线径：0.028~0.034mm；拉丝运行速度：100~150m/min；单线长度：>=125km；细丝收卷使用的张力不超过1.2N，使用间接张力控制，要求张力波动不大于±0.1N，收卷平稳不断丝。
放卷主动力小于0.6N，使用连续扭矩控制。
收卷排线控制
收卷时通过排线轴往复移动，需要排线均匀。
多组温度控制，加热炉温度偏差小于±5℃；加热膜温度偏差小于±2℃。

Rewinding and unwinding tension control
Minimum wire diameter: 0.028~0.034mm; Drawing running speed: 100~150m/min; Single line length: >=125km; The tension used for filament winding does not exceed 1.2N, and indirect tension control is used, which requires that the tension fluctuation is not greater than ±0.1N, and the winding is stable and continuous.
The main unwinding power is less than 0.6N, and continuous torque control is used.
Rewinding cable control
When winding, it is reciprocated through the spool, and the wire needs to be evenly arranged.
Multiple groups of temperature control, the temperature deviation of the heating furnace is less than ±5℃; The temperature deviation of the heating film is less than ±2℃.

配置清单 Performance

SoftMC804 Codesys	X 1	触摸屏	X 1
BD3系列	X 1	第三方视觉上位机	X 1
Io模块	若干	Ph2伺服电机	X 4

半导体行业 Semiconductor industry



插件机
Plug-in machine

插件机，就是将一些有规则的电子元器件自动标准地插装在印制电路板导电通孔内的机械设备。

Plug-in machine is a mechanical device that automatically and standardly inserts some regular electronic components into the conductive through holes of the printed circuit board.

设备描述 Core station

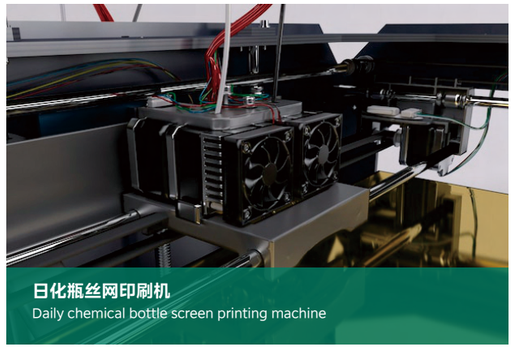
复杂的凸轮运动
根据元件列表，连续式主轴高速旋转，完成多轴凸轮插补逻辑，以及X、Y移动工件台实现打板动作。
复杂的插件逻辑
根据元件列表计算选件气缸插件逻辑，以及缺料补料逻辑。上料机构要根据配方进行排料，要和严格一致，不允许有空位。

Complex cam movements
According to the component list, the continuous spindle rotates at high speed, completes the multi-axis cam interpolation logic, and moves the workpiece table X and Y to realize the plate action.
Complex plugin logic
Calculation of option cylinder insert logic from the component list, as well as shortage replenishment logic. The feeding mechanism should be discharged according to the formula, and it should be strictly consistent, and no vacancies are allowed.

配置清单 Performance

SoftMC703/804 Codesys	X 1	CDHD、CDHD2	X 8
Io模块	若干	第三方视觉上位机	X 1

印刷行业 Printing industry



日化瓶丝网印刷机
Daily chemical bottle screen printing machine

给各种形状日化品瓶外侧通过丝网印刷方式印刷图案

Patterns are printed on the outside of daily chemical bottles of various shapes by screen printing

设备描述 Core station

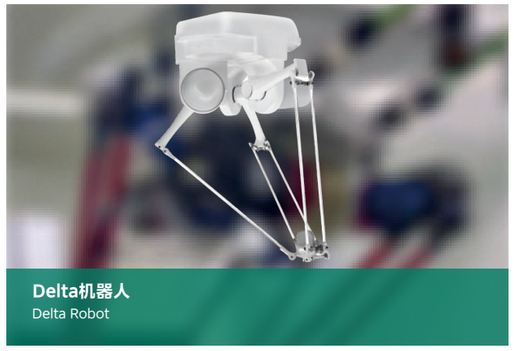
多种图形的轨迹联动
日化品瓶具有多种形状：圆形、椭圆、倒圆角方形、八面弧形等。需要通过计算各种形状尺寸，来控制网板、挂刀、旋转、抬刀进行四轴插补。印刷时刮刀需要始终跟踪图案最高点，网板移动和图形外表面要求距离严格同步。

Trajectory linkage of multiple graphs
Daily chemical bottles come in a variety of shapes: round, oval, rounded, square, eight-sided arc, etc. It is necessary to calculate various shapes and sizes to control the screen plate, hanging knife, rotation, and lifting knife for four-axis interpolation. When printing, the squeegee needs to always track the highest point of the pattern, and the distance between the movement of the stencil and the outer surface of the pattern needs to be strictly synchronized.

配置清单 Performance

SoftMC703/SC301 Codesys	X 1	IO模块	若干
Bd3系列	X 5	第三方触摸屏	X 1

机器人行业 Robotics industry



Delta机器人
Delta Robot

Delta机器人采用并联结构，包含3个并联连杆轴和一个平面旋转轴，实现小件物品的平面搬运，广泛用于食品、医药、化妆品等行业。

The Delta robot adopts a parallel structure, including three parallel linkage axes and one planar rotation axis, to achieve planar handling of small items, widely used in industries such as food, medicine, cosmetics, etc.

设备描述 Core station

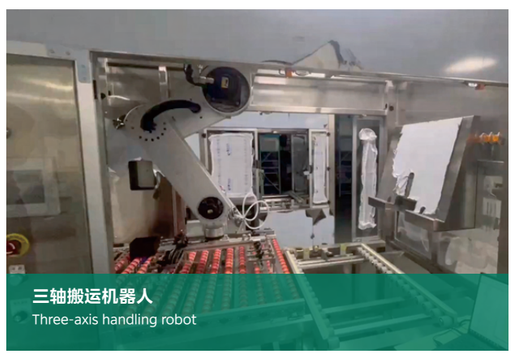
- 坐标系偏移、旋转
- 配合视觉手眼标定和取放
- 空间保护
- 节拍

Positioning accuracy< 0.005/160mm
Positioning accuracy< 0.005/160mm
Repeatability +-1um

配置清单 Performance

控制器 SC-E08-301-0105	X 1	触摸屏PT1001-1010	X 1
伺服系统 BD3系列+PH2	X 4		

包装行业 Packaging industry



三轴搬运机器人
Three-axis handling robot

三轴搬运机器人，用来实现一个平面内的移动和角度控制，广泛应用在包装设备的取放应用中。有时也会配置在一个可移动的底座上，实现产品的动态取放。

A three-axis handling robot is used to achieve movement and angle control within a plane, and is widely used in the picking and placing applications of packaging equipment. Sometimes it is also configured on a movable base to achieve dynamic product retrieval and placement.

设备描述 Core station

机器人正逆解计算
通过SCARA机器人的机械结构，建立数学模型，通过平面空间的(x,y,r)坐标信息，计算出J1,J2,J3的角度数据。从而在通用运动控制器实现机器人的动作控制。从而简化这个设备的控制系统。
轨迹示教及路径平滑
取放动作位置点需要可示教，简化设备的操作
移动速度要快且稳。通过轨迹平滑功能，可以对多个点位的轨迹进行平滑，显著提高运行速度及稳定性。

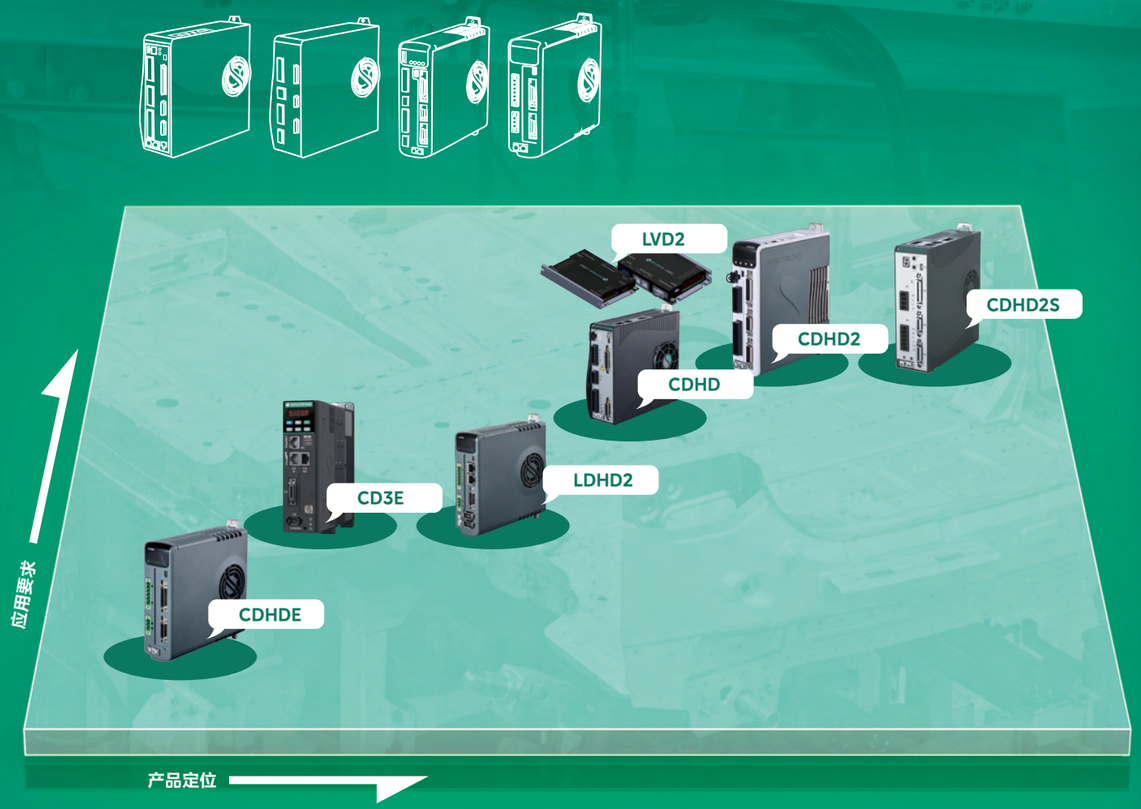
Calculation of forward and reverse solutions of robots
Through the mechanical structure of the SCARA robot, a mathematical model is established, and the angle data of J1, J2 and J3 are calculated through the (x, y, r) coordinate information of the plane space. In this way, the motion control of the robot can be realized in the universal motion controller. This simplifies the control system of this device.
Trajectory teaching and path smoothing
The pick-and-place action position points need to be teachable to simplify the operation of the equipment
Move fast and steady. Through the trajectory smoothing function, the trajectory of multiple points can be smoothed, which significantly improves the running speed and stability.

配置清单 Performance

控制器 SC-E08-301-0105	X 1	触摸屏PT1001-1010	X 1
伺服系统 BD3系列+PH2	X 3		

高创直线伺服
产品定位

Servotronix linear servo
Product positioning



直线伺服命名规则
Line naming conventions

CDHD - 006 - 2A AP1 - ST

1 2 3 4 5

CDHD

1 系列号 S/N

标识字母 Mark	含义 Meaning
CDHD	CDHD 伺服驱动器 CDHD servo drive
CDHD2	CDHD2 伺服驱动器 CDHD2 servo drive
CDHD2S	CDHD2S 伺服驱动器 CDHD2S servo drive
CDHD3E	CD3E 经济型伺服驱动器 CD3E economic servo drive

006

2 功率规格 Power rating

输入电压 220 VAC Input voltage 220 VAC

符号 Mark	连续电流 (A rms) Continuous	峰值电流 (A rms) Peak
1D5	1.5	4.5
003	3	9
4D5	4.5	18
006	6	18
008	8	28
010	10	28
5D5	5.5	17
013	13	28
020	20	48
024	24	48/72
033	33	88
044	44	120
055	55	138

输入电压 380 VAC Input voltage 380 VAC

符号 Mark	连续电流 (A rms) Continuous	峰值电流 (A rms) Peak
003	3	9
006	6	18
012	12	24
024	24	72
030	30	90
045	45	135
060	60	180

输入电压 20-90 VDC Input voltage 20-90 VDC

符号 Mark	连续电流 (A rms) Continuous	峰值电流 (A rms) Peak
003	3	9
006	6	18
012	12	24
015	15	30

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

3 电压等级 Voltage level

符号 Mark	规格 Specification
2A	中压输入电源： Medium voltage input power: 单相输入220 L-L VAC+10%-15% 50/60 Hz Single-phase input 220 L-L VAC +10%-15% 50/60 Hz 三相输入220 L-L VAC+10%-15% 50/60 Hz Three-phase input 220 L-L VAC +10%-15% 50/60 Hz
4D	高压输入电源： High voltage input power: 三相输入380 L-L VAC+10%-15% 50/60 Hz Three-phase input 380 L-L VAC +10%-15% 50/60 Hz 24 VDC控制板供电 24 VDC control board power supply
1D	高压输入电源： High voltage input power: 三相输入380 L-L VAC+10%-15% 50/60 Hz Three-phase input 380 L-L VAC +10%-15% 50/60 Hz 24 VDC控制板供电 24 VDC control board power supply

4 通讯类型 Communication type

符号 Mark	规格 Specification	模拟输入 Analog input
Pb0	PWM电源模块 PWM power module	无 No
APx	模拟电压、脉冲方向、RS232 Analog voltage, pulse direction, Rs232	1*或2 1* or 2
AFx	模拟电压、脉冲方向、CANopen、USB、RS232 Analog voltage, pulse direction, CANopen, USB, Rs232	1*或2 1* or 2
ECx	EtherCAT、脉冲方向、USB、RS232 EtherCAT, pulse direction, USB, Rs232	1或2* 1 or 2*
EB2	EtherCAT、EtherNET、USB	2
PN2	Profinet	2
EG	EtherCAT、EtherNET、Gantry	无 No

*标准配置
*Standard configuration

x=1：一个模拟输入，16位
x=1: one analog input, 16-bit
x=2：两个模拟输入，每个14位
x=2: two analog inputs, 14-bit for each

5 电机类型和安全扭矩关闭（STO）功能 Motor type and safety torque off (STO) function

符号 Mark	规格 Specification	功能安全认证* Functional safety certification*
Pb0	旋转和直线伺服电机 Rotary and linear servo motors	无 No
APx	旋转伺服电机 Rotary servo motor	无 No
AFx	旋转和直线伺服电机 Rotary and linear servo motors	有 Yes
ECx	旋转伺服电机，通过STO认证。 Rotary servo motor, certified by STO.	有 Yes
EB2	支持旋转变压器 It supports rotary transformers.	无 No
PN2	客户定制固件，通过STO认证。 Customer-customized firmware, certified by STO.	有 Yes
EG	根据市场需求的定制产品。 Customized products based on market demand.	/

*功能安全认证选项不适用于以下情况：
*Functional safety certification options do not apply to the following cases:
220 VAC驱动器：型号020、024
220 VAC drive: Model 020, 024
380 VAC驱动器：型号024、030
380 VAC drive: Model 024, 030

CDHD2S-EC/AP

直线伺服
Linear drive

高性能电机控制
High-performance motor control

提供多种反馈接口
Multiple feedback interfaces provided

通过第二反馈，
全闭环高精度控制
High-precision control in closed loop through secondary feedback

位置比较输出模块
Position comparison output module

1D 误差纠正补偿表
1D error correction compensation table

安全转矩关闭功能(STO)
安全转矩关闭功能(STO)

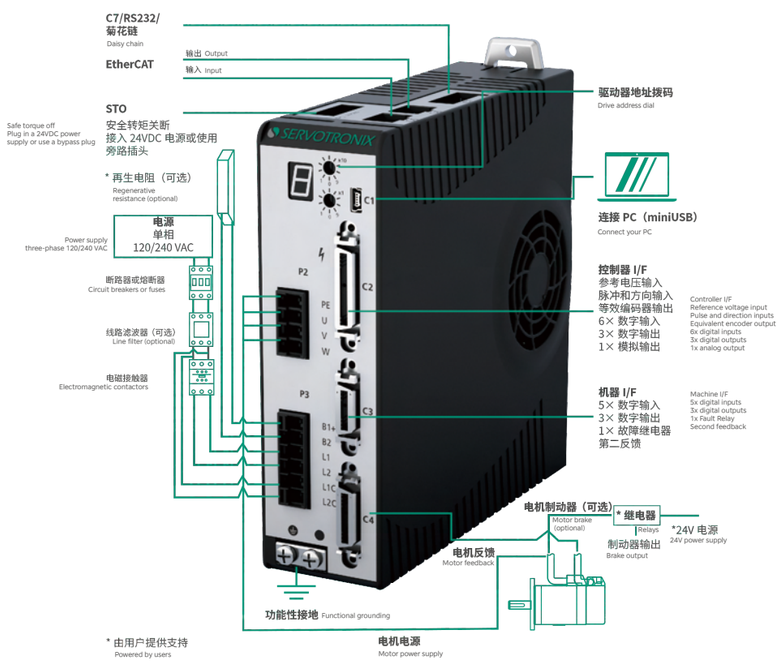
高功率密度
High power density

高级非线性控制算法可最大限度减少位置误差并将定位时间缩短至零左右
Advanced nonlinear control algorithms can minimize position errors and reduce positioning time to around zero.

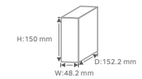
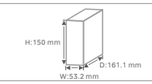
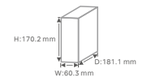
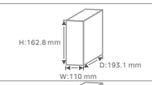
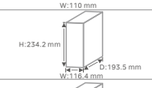
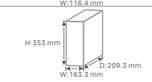
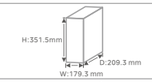
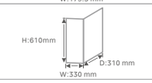
符合 CE、RoHS 认证
Comply with CE、RoHS certificationstandards

温度 Temperature	中压工作温度为0-55°C，其他机型0-45°C，存储温度0-70°C The medium voltage operating temperature is 0-55°C, other models are 0-45°C, and the storage temperature is 0-70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

接线图
Wiring Diagram



产品规格参数
Product specifications

产品型号 Product model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 Continuous (Arms)	峰值电流 Peak (Arms)	宽 x 高 x 深 Width x height x depth(mm)
CDHD2S-0031DEC2	20-90VDC	单相 Single-phase	3	9	
CDHD2S-1D52AEC2/AP1	220	单相 Single-phase	1.5	4.5	
CDHD2S-0032AEC2/AP1	220	单相 Single-phase/three-phase	3	9	
CDHD2S-4D52AEC2/AP1	220	单/三相 Single-phase/three-phase	4.5	18	
CDHD2S-0062AEC2/AP1	220	单/三相 Three-phase	6	18	
CDHD2S-0082AEC2/AP1*	220	三相 Three-phase	8	31.8	
CDHD2S-0102AEC2/AP1*	220	三相 Three-phase	10	31.8	
CDHD2S-0132AEC2/AP1*	220	三相 Three-phase	13	31.8	
CDHD2S-0034DEC2*	380	三相 Three-phase	3	9	
CDHD2S-0064DEC2*	380	三相 Three-phase	6	18	
CDHD2S-0124DEC2	380	三相 Three-phase	12	24	
CDHD2S-0244DEC2	380	三相 Three-phase	24	72	
CDHD2S-0304DEC2	380	三相 Three-phase	30	90	
CDHD2S-0404DEC2*	380	三相 Three-phase	40	120	
CDHD2S-0604DEC2	380	三相 Three-phase	60	180	

产品选型配置
Product selection configuration

接口配置 Interface configuration	
调试口 Debugging port	RS232，USB
STO	默认 Default
分频输出 Frequency division output	支持 Support
数字量输入 DI	11路，三路快速输入 11 channels, three fast inputs
数字量输出 DO	8路，两路快速输出 8 channels, two fast outputs
全闭环 Full closed loop	不支持 Not supported
直驱抱闸 Direct drive brake	无，通过IO控制继电器 None, relay control through IO
控制模式 Control mode	
控制模式 Control mode	EtherCAT总线，脉冲，模拟量 EtherCAT bus, pulse, analog
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization function	支持 Support
位置比较输出功能 Position comparison output function	支持，两路输出 Supported, two outputs
探针功能 Probe function	支持，两路输入 Supported, two inputs

典型行业应用
Typical industry applications

半导体行业 Laser industry

真空镀膜
Vacuum coating

真空镀膜设备要求旋转电机在真空环境下运行，对电机稳定性和发热控制要求较高。能够支持Profinet并且满足低压直流输入和完美兼容支持第三方定制电机的需求，CDHD2S-PN正好满足

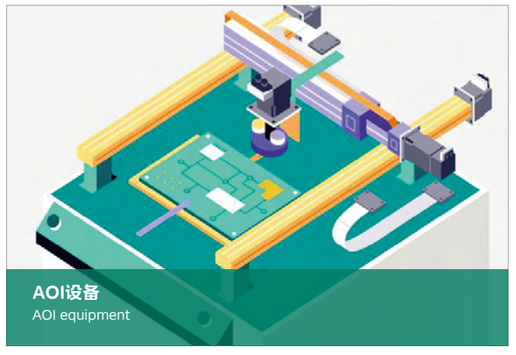
Vacuum coating equipment requires rotary motors to operate in a vacuum environment, which has high requirements for motor stability and heat control

基于PN总线的控制方案 PN bus-based control scheme

- 电机为多摩川协议的编码器条件下，满足客户要求的可以在断电变更机械位置后PLC控制复位回原的要求（更新固件已完成）
- 客户技术端需要调用查看驱动的监控瞬时扭矩反馈
- 整个设备的控制都基于PN总线，涉及3号+附加750报文

Under the condition that the motor is an encoder of the Tamagawa protocol, it is possible to reset the original with PLC control after the power failure and change the mechanical position to meet the customer's requirements (the firmware update has been completed)
The customer's technical side needs to call to see the instantaneous torque feedback of the monitoring drive
The control of the entire device is based on the PN bus, involving number 3 + additional 750 messages

3C行业 3C industry



AOI设备
AOI equipment

AOI（自动光学检测）机是基于光学原理来检测缺陷。该机器可广泛应用于印刷电路板/触摸板/半导体等行业

AOI (Automated Optical Inspection) machines are based on optical principles to detect defects. The machine can be widely used in printed circuit board/touch board/semiconductor and other industries

核心工位 Core station

- 点到点定位 — Point-to-point positioning
- 直线、圆弧插补 — Straight, circular interpolation
- 路径规划 — Path planning

性能表现 Performance

- 线速度 150mm/sec — Linear speed 150mm/sec
- 轨迹精度 ±0.02mm — Trajectory accuracy ±0.02mm
- 整定时间 3-5ms — Tuning time 3-5ms

光伏行业 Photovoltaic industry

叠片机设备
Laminator equipment

核心工位 Core station

- S1叠片下料平移电机 CDHD2S-006 — S1 Laminated Blanking Translational Motor CDHD2S-006
- S1定位取料平移电机 CDHD2S-012 — S1 Positioning & Reclaiming Translational Motor CDHD2S-012
- S1负料盒取料平移电机 CDHD2S-012 — S1 negative magazine reclaiming and translational motor CDHD2S-012
- S1隔膜储料电机 CDHD2S-012 — S1 Diaphragm Storage Motor CDHD2S-012
- S1正料盒取料平移电机 CDHD2S-012 — S1 positive box reclaiming and translational motor CDHD2S-012

性能表现 Performance

- 性能: 要求最高运行速度3m/s,加减速3g,10μ以内的稳态误差，以及整定时间在50ms以内 — S1 laminated blanking translational motor; S1 positioning and reclaiming translational motor; S1 negative magazine reclaiming and translational motor
- 功能: 总线控制 — S1 diaphragm storage motor
- 方案完整: CDHD2S驱动器 — S1 positive box reclaiming and translational motor
- 易用性: 调试维护方便，HD非线性控制算法，对该设备的末端抖动抑制非常有效果

CDHD2S PN

温度 Temperature	中压工作温度为0-55°C，其他机型0-45°C，存储温度0-70°C The medium voltage operating temperature is 0-55°C, other models are 0-45°C, and the storage temperature is 0-70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

高性能电机控制
High-performance motor control
PROFINETIRT等时同步通讯
PROFINETIRT isochronous synchronous communication

提供多种反馈接口
Multiple feedback interfaces provided

通过第二反馈，全闭环高精度控制
High-precision control in closed loop through secondary feedback

位置比较输出模块
Position comparison output module

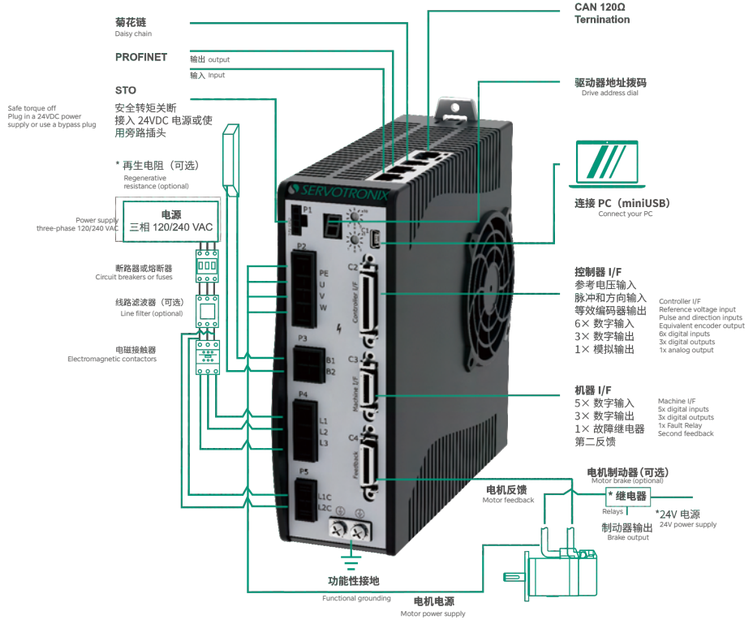
高级非线性控制算法可最大限度减少位置误差并将定位时间缩短至零左右
Advanced nonlinear control algorithms can minimize position errors and reduce positioning time to around zero.

高功率密度
High power density
安全转矩关闭功能(STO)
Safe Torque Off (STO)

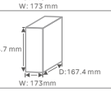
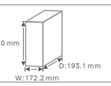
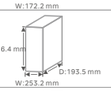
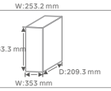
采用 ServoStudio™2.0 GUI调试，全面的综合参数进行优化配置
ServoStudioTM2.0 GUI is adopted for debugging, using comprehensive parameters for optimal configuration.

符合 CE、RoHS 认证
Comply with CE、RoHS certificationstandards

接线图
Wiring Diagram



产品规格参数
Product specifications

产品型号 Product model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 Continuous (Arms)	峰值电流 Peak (Arms)	宽 x 高 x 深 Width x height x depth(mm)
CDHD2S-1D52APN2	220	单相 Single-phase	1.5	4.5	
CDHD2S-0032APN2	220	单相 Single-phase	3	9	
CDHD2S-4D52APN2	220	单/三相 Single-phase/three-phase	4.5	18	
CDHD2S-0062APN2	220	单/三相 Single-phase/three-phase	6	18	
CDHD2S-0082APN2	220	三相 Three-phase	8	28	
CDHD2S-0102APN2	220	三相 Three-phase	10	28	
CDHD2S-0132APN2	220	三相 Three-phase	13	28	
CDHD2S-0034DPN2	380	三相 Three-phase	3	18	
CDHD2S-0064DPN2	380	三相 Three-phase	6	18	
CDHD2S-0124DPN2	380	三相 Three-phase	12	24	
CDHD2S-0244DPN2	380	三相 Three-phase	24	72	
CDHD2S-0304DPN2	380	三相 Three-phase	30	90	

产品选型配置
Product selection configuration

接口配置 Interface configuration	
调试口 Debugging port	RS232，USB
STO	默认 Default
分频输出 Frequency division output	支持 Support
数字量输入 DI	11路，三路快速输入 11 channels, three fast inputs
数字量输出 DO	8路，两路快速输出 8 channels, two fast outputs
全闭环 Full closed loop	不支持 Not supported
直驱抱闸 Direct drive brake	无，通过IO控制继电器 None, relay control through IO
控制模式 Control mode	
控制模式 Control mode	PN总线，脉冲，模拟量 PN bus, pulse, analog
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization function	支持 Support
位置比较输出功能 Position comparison output function	支持，两路输出 Supported, two outputs
探针功能 Probe function	支持，两路输入 Supported, two inputs

CD3E

直线伺服
Linear drive

温度 Temperature	0℃至45℃，无需降额，45℃至55℃，需降额 存储温度：-20℃至70℃ 0°C to 45°C without derating, 45°C to 55°C with derating Storage temperature: -20°C to 70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

版本：总线版EtherCAT支持一键自整定、
Version: Bus version EtherCAT supports such functions as one-click self-tuning

Ai助手
AI assistant

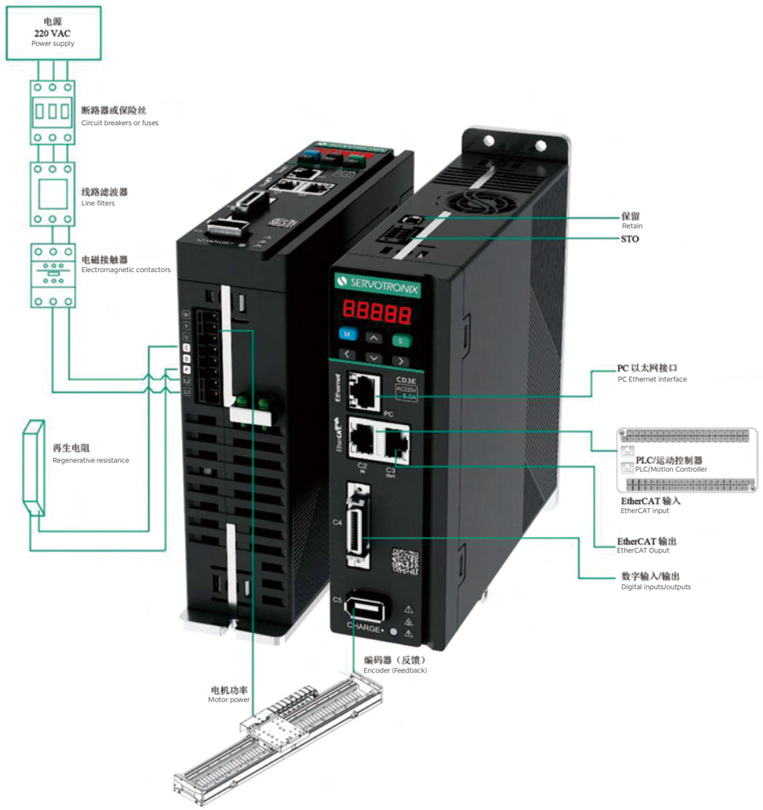
动态制动
Dynamic braking

紧急制动
Emergency braking

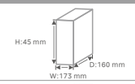
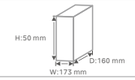
飞车保护
Fly protection

飞拍 PCOM*、探针功能*、错误纠正*、误差补偿、碰撞检测*、输入整形、频域分析、可变增益、弱磁控制等功能（*此功能即将发布）
Fly shooting PCOM*, probing function*, error correction*, error compensation, collision detection*, input shaping, frequency domain analysis, variable gain, and weak magnetic control.
(*These functions will be released soon.)

接线图
Wiring Diagram



产品规格参数
Product specifications

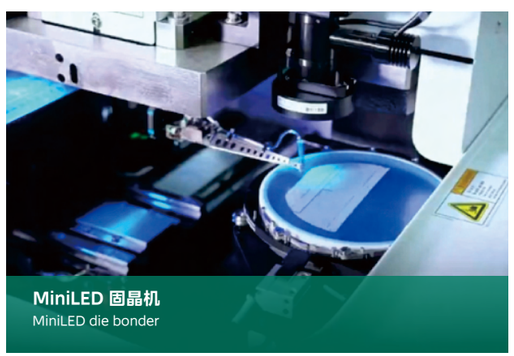
产品型号 Product model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 Continuous (Arms)	峰值电流 Peak (Arms)	宽 x 高 x 深 Width x height x depth(mm)
CD3E-0032AEB0	220	单相 Single-phase	3	9	
CD3E-5D52AEB0	220	单相 Single-phase	5.5	17	

产品选型配置
Product selection configuration

接口配置 Interface configuration	
调试口 Debugging port	EtherNET以太网 192.168.57.60 EtherNET Ethernet 192.168.57.60
STO	默认支持 Supported by default
分频输出 Frequency division output	分频系数，固定为1。输出脉冲与编码器输入脉冲频率一致（直通输出） Frequency division coefficient, fixed at 1. The output pulse is consistent with the encoder input pulse frequency (direct output)
数字量输入 DI	7路，两路快速输入 7 channels, two fast inputs
数字量输出 DO	3路输出 3 outputs
全闭环 Full closed loop	不支持 Not supported
直驱抱闸 Direct drive brake	无，通过IO控制继电器 None, relay control through IO
控制模式 Control mode	
控制模式 Control mode	EtherCAT总线 EtherCAT bus
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization function	不支持 Not supported
位置比较输出功能 Position comparison output function	特定版本 Specific version
探针功能 Probe function	支持，两路输入 Supported, two inputs

典型行业应用
Typical industry applications

半导体行业 Semiconductor industry



MiniLED 固晶机
MiniLED die bonder

固晶机是新型显示行业封装中段的核心设备，是MiniLED封装生产线的关键环节之一。固晶机主要实现从蓝膜上吸取芯片，精准的转移到基板焊盘上
The die bonder is the core equipment in the middle section of the packaging of the new display industry, and is one of the key links in the MiniLED packaging production line. The die bonding machine mainly realizes the chip from the blue film and accurately transfers it to the substrate pad.

核心工位 Core station
晶圆XY平台、固晶XY平台、摆臂轴
Wafer XY stage, die bonding XY stage, swing arm shaft

性能表现 Performance
不同测试工况下，位置误差整定到2μm精度以内的整定时间如下表（附表为典型数据，具体性能与电机及光栅系统和导轨紧密相关）
Under different test conditions, the setting time of position error to an accuracy of less than 2 μm is shown in the following table (the attached table is a typical data, and the specific performance is closely related to the motor, grating system and guide rail).

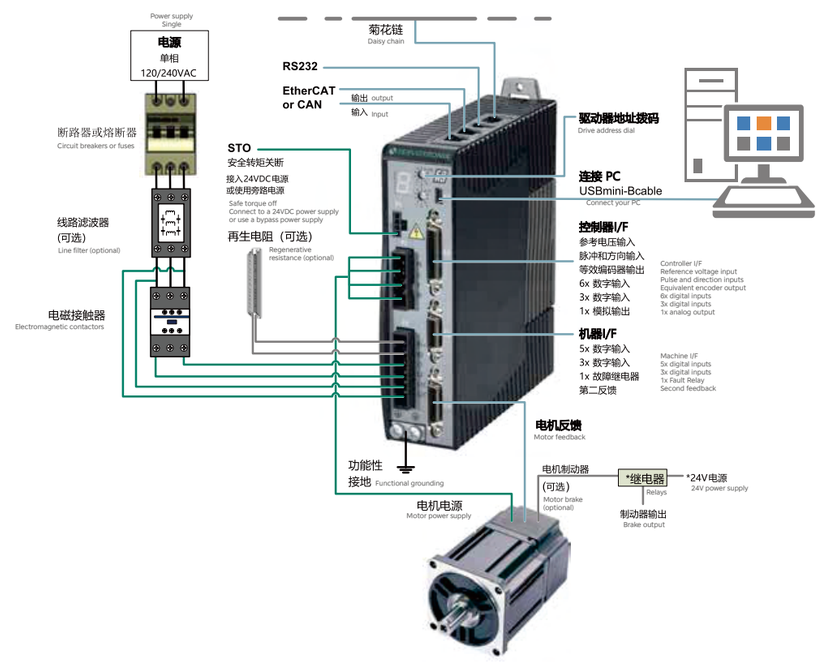
CDHD

直线伺服
Linear drive

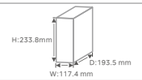
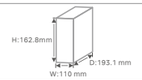
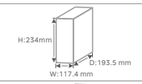
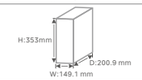
温度 Temperature	环境温度：运行温度 0-45°C，储存温度 0-70°C Ambient temperature: Operating temperature 0-45°C, Storage temperature 0-70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

- 可对所有永磁伺服电机进行高性能控制
  Able to perform high-performance control for all permanent magnet servo motors.
- 支持多种反馈设备
  Supporting various feedback devices
- 可对任何驱动器功能进行输入/输出编程
  Input/output programming for any drive
- 采用高级控制算法，可确保设备精度并可实现产能的最大化
  Utilizing advanced control algorithms to ensure device accuracy and maximize production capacity
- 外形小巧，占地空间小
  Compact design, small space occupation
- 安全扭矩关断 (STO)
  With Safe Torque Off (STO)
- 可快速修改固件以满足特定的应用需求
  Firmware can be quickly modified to meet specific application requirements.
- 符合 CE、RoHS、STO、UL 认证
  Comply with CE、RoHS、STO、UL certificationstandards

接线图
Wiring Diagram



产品规格参数
Product specifications

产品型号 Product model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 Continuous (Arms)	峰值电流 Peak (Arms)	宽 x 高 x 深 Width x height x depth(mm)
CDHD-1D5	120/240	单相 Single-phase	1.5	4.5	
CDHD-003	120/240	单相 Single-phase	3	9	
CDHD-4D5	120/240	单相/三相 Single-phase/three-phase	4.5	18	
CDHD-006	120/240	单相/三相 Single-phase/three-phase	6	18	
CDHD-008	120/240	三相 Three-phase	8	28	
CDHD-010	120/240	三相 Three-phase	10	28	
CDHD-013	120/240	三相 Three-phase	13	28	
CDHD-020	120/240	三相 Three-phase	20	48	
CDHD-024	120/240	三相 Three-phase	24	48	
CDHD-003	400/480	三相 Three-phase	3	9	
CDHD-006	400/480	三相 Three-phase	6	18	
CDHD-012	400/480	三相 Three-phase	12	24	
CDHD-024	400/480	三相 Three-phase	24	72	
CDHD-030	400/480	三相 Three-phase	30	90	

产品选型配置
Product selection configuration

	接口配置 Interface configuration
调试口 Debugging port	RS232，USB
STO	默认 Default
分频输出 Frequency division output	支持 Support
数字量输入 DI	11路，两路快速输入 11 channels, 2 fast inputs
数字量输出 DO	6路，两路快速输出 6 channels, 2 fast outputs
全闭环 Full closed loop	不支持 Not supported
直驱抱闸 Direct drive brake	无，通过IO控制继电器 None, relay control through IO
	控制模式 Control mode
控制模式 Control mode	EtherCAT，CANOpen，PWM，脉冲，模拟量 EtherCAT, CANOpen, PWM, pulse, analog
	控制特性 Control characteristics
龙门同步功能 Gantry synchronization function	不支持 Not supported
位置比较输出功能 Position comparison output function	不支持 Not supported
探针功能 Probe function	支持 Support

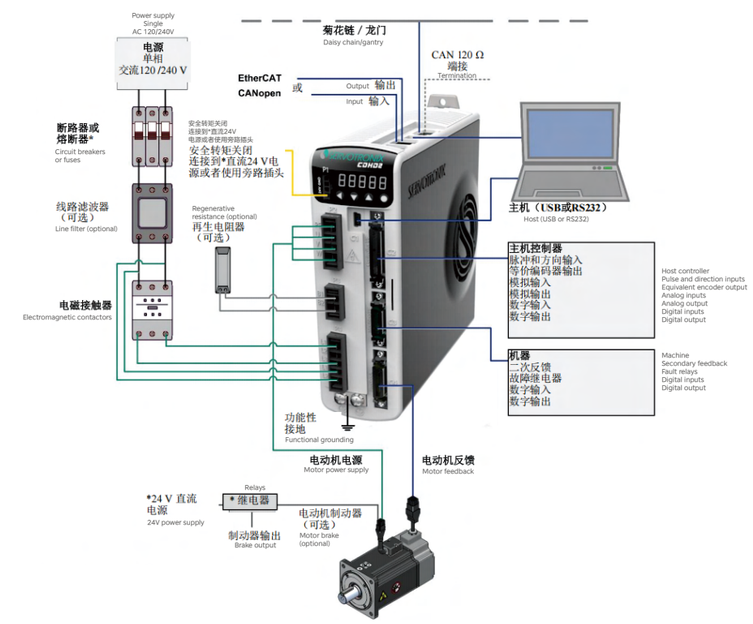
CDHD2

直线伺服
Linear drive

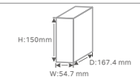
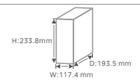
温度 Temperature	环境温度：运行温度 0-45°C，储存温度 0-70°C Ambient temperature: Operating temperature 0-45°C, Storage temperature 0-70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

- 高性能控制所有永磁伺服电机
  Able to perform high-performance control for all permanent magnet servo motors.
- 提供多种反馈装置接口
  Multiple feedback device interfaces provided.
- 双闭环控制的第二编码器接口
  Second encoder interface with dual closed-loop control
- 内置驱动器配置和诊断的操作面板
  Built-in operation panel with drive configuration and diagnosis
- 内置支持刚性和柔性龙门系统
  Built-in gantry system supporting rigid and flexible operations
- 位置比较输出模块
  Position comparison output module
- 高功率密度
  High power density
  安全转矩关闭功能(STO)
  Safe Torque Off (STO)
- CE、RoHS 认证
  符合 CE、RoHS 认证
  Comply with CE、RoHS certificationstandards

接线图
Wiring Diagram



产品规格参数
Product specifications

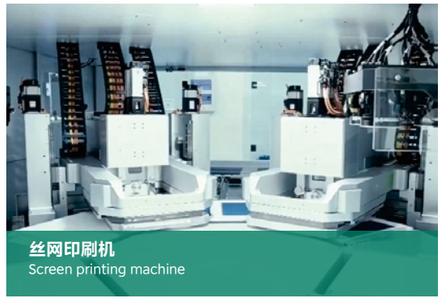
产品型号 Product model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 Continuous (Arms)	峰值电流 Peak (Arms)	宽 x 高 x 深 Width x height x depth(mm)
CDHD2-003	20-90 VDC	单相 Single-phase	3	9	
CDHD2-006	20-90 VDC	单相 Single-phase	6	18	
CDHD2-012	20-90 VDC	单相 Single-phase/three-phase	12	24	
CDHD2-015	20-90 VDC	单相 Single-phase/three-phase	15	30	
CDHD2-1D5	120/240 VAC	单相 Three-phase	1.5	4.5	
CDHD2-003	120/240 VAC	单相 Three-phase	3	9	
CDHD2-4D5	120/240 VAC	单相/三相 Three-phase	4.5	18	
CDHD2-006	120/240 VAC	单相/三相 Three-phase	6	18	
CDHD2-008	120/240 VAC	三相 Three-phase	8	28	
CDHD2-010	120/240 VAC	三相 Three-phase	10	28	
CDHD2-013	120/240 VAC	三相 Three-phase	13	28	
CDHD2-020	120/240 VAC	三相 Three-phase	20	60	
CDHD2-024	120/240 VAC	三相 Three-phase	24	72	
CDHD2-033	120/240 VAC	三相 Three-phase	33	130	
CDHD2-044	120/240 VAC	三相 Three-phase	44	130	
CDHD2-055	120/240 VAC	三相 Three-phase	55	130	

产品选型配置
Product selection configuration

接口配置 Interface configuration	
调试口 Debugging port	RS232，USB
STO	默认 Default
分频输出 Frequency division output	支持 Support
数字量输入 DI	11路，两路快速输入 11 channels, 2 fast inputs
数字量输出 DO	8路，两路快速输出 6 channels, 2 fast outputs
全闭环 Full closed loop	支持 Not supported
直驱抱闸 Direct drive brake	无，通过IO控制继电器 None, relay control through IO
控制模式 Control mode	
控制模式 Control mode	EtherCAT总线，CANOpen，脉冲，模拟量 EtherCAT, CANOpen, PWM, pulse, analog
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization function	支持 Not supported
位置比较输出功能 Position comparison output function	支持 Not supported
探针功能 Probe function	支持 Support

典型行业应用
Typical industry applications

光伏行业 Photovoltaic industry



丝网印刷机
Screen printing machine

核心工位 Core station

- CDHD-30A HV(400V)+3rd DDR->高速精密转台
- CDHD2(全闭环)+PRHD2->印刷纠偏
- 6 轴/12 轴 DC驱动器（定制）->卷纸平台
- CDHD2(力控）+PRHD2->恒压力印刷
- EtherCAT通讯
- 24 轴每个设备

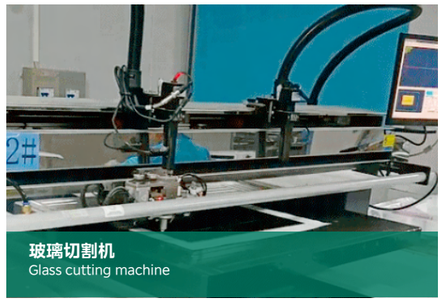
CDHD-30A HV(400V)+3rd DDR-> High Speed Precision Rotary Table
CDHD2 (full closed loop) + PRHD2-> printing and correction
6-axis/12-axis DC driver (customized) - > roll platform
CDHD2 (force control) + PRHD2-> constant pressure printing
EtherCAT communication
24 axes per device

性能表现 Performance

- 印刷产能:7,700片/小时
- 碎片率:<0.1%
- 印刷精度:±6微米

Printing capacity: 7,700 pieces/hour
Fragmentation Rate: <0.1%
Printing accuracy: ±6 microns

玻璃行业 Glass industry



玻璃切割机
Glass cutting machine

玻璃切割是玻璃深加工过程中的前道工序，也是应用频率较高的工艺。但玻璃易碎的特点常常为加工过程带来不少难题：如容易出现裂纹、边缘毛糙等。针对这些问题，玻璃切割机利用玻璃抗张应力低的力学性能，通过采用金刚石锯进行切割，以实现高生产效率、低生产成本、高切割质量和精度的切割运动

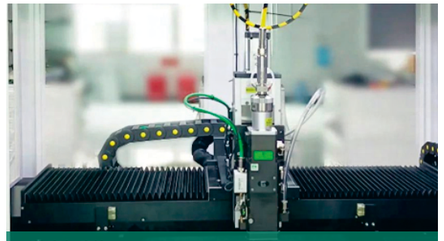
Glass cutting is the previous process in the deep processing of glass, and it is also a process with high application frequency. However, the fragile nature of glass often brings many problems to the processing process: for example, it is prone to cracks, rough edges, etc. In response to these problems, the glass cutting machine uses the mechanical properties of glass with low tensile stress to cut by using diamond saws to achieve high production efficiency, low production cost, high cutting quality and precision cutting movement

核心工位 Core station

高精密切割：玻璃切割机的运动效率与其搭载的驱动器、电机的性能息息相关。高创的 CDHD驱动器应用到玻璃切割机中，并联动电机驱动X轴、Y轴、R轴三轴进行切割运动，能有效实现精密化切割。
解决方案"痛点"：CDHD驱动器在玻璃切割机的应用中，能实现斜线误差在±10μm范围内、切割直线与直径3MM的圆弧误差达到客户的工艺，调试的关键点尽量压低X/Y轴轨迹运动的PE波动值，确保玻璃切割运动"一步到位"。在具备运动"快稳准"的性能特点同时，CDHD驱动器在成本方面也具有更高的性价比，能为客户带来降本提效的效益。

High-precision cutting: The motion efficiency of the glass cutting machine is closely related to the performance of the drive and motor it carries. The CDHD driver is applied to the glass cutting machine, and the motor is linked to drive the X-axis, Y-axis, and R-axis to perform the cutting movement, which can effectively achieve precision cutting.
SOLUTION "PAIN POINT": CDHD DRIVER IN THE APPLICATION OF GLASS CUTTING MACHINE, CAN ACHIEVE THE OBLIQUE ERROR IN THE RANGE OF ±10MM, THE CUTTING LINE AND THE DIAMETER OF 3MM ARC ERROR TO REACH THE CUSTOMER'S PROCESS, THE KEY POINT OF DEBUGGING TRY TO REDUCE THE PE FLUCTUATION VALUE OF THE X/Y AXIS TRAJECTORY MOVEMENT, TO ENSURE THAT THE GLASS CUTTING MOVEMENT "IN ONE STEP". While having the performance characteristics of "fast, stable and accurate" movement, CDHD drivers also have higher cost performance in terms of cost, which can bring customers the benefits of cost reduction and efficiency improvement.

激光行业 Laser industry



激光切割机
Laser cutting machine

龙门平台激光切割机，龙门结构激光切割速度快，切缝窄、热影响区小、切缝垂直度好、切边光滑，同时激光激光可切割的种类多。龙门式设计克服了其在负载、速度、可达性和重复性方面的固有限制，具有优秀的灵活性

Gantry platform laser cutting machine, gantry structure laser cutting speed is fast, narrow slit, small heat affected zone, good perpendicularity of slit, smooth cutting edge, and there are many types of laser laser cutting. The gantry design overcomes its inherent limitations in terms of load, speed, accessibility and repeatability, providing excellent flexibility

技术难点 Technical difficulties

- 快响应：龙门机构激光切割机在运动时，CDHD2伺服系统处于频繁启停，加速和减速状态，为提高生产下效率及加工质量，直线电机大理石平台方案可根据客户实际需求将速度提升至1M/S，加减速提升至1G。
- 高精度：为了满足龙门结构激光切割的加工精度，关键保证设备的定位精度和重复精度，在应用CDHD2伺服龙门系统性能下，增加定位补偿功能，实现高
- 精度的重要指标：CDHD2直线电机龙门大理石平台补偿前精度：主轴侧：双向，定位精度24.0um,重复精度1.5um从轴侧：双向，定位精度17.0um,重复精度2.0umCDHD2直线电机龙门大理石平台补偿后精度：主轴侧：双向，定位精度2.3um,重复精度1.4um从轴侧：双向，定位精度2.5um,重复精度1.1umCDHD2直线电机龙门伺服方案采用HD控制算法，主轴到位精度2.5um，整定时间0ms，主从轴偏差1.2um，远远优于其他控制算法。
高精密切割：切割直径5mm/3mm的圆弧轨迹，精度在10um以内，且一致性稳定，达到行业标准。

Quick response: when the gantry mechanism laser cutting machine is in motion, the CDHD2 servo system is in a state of frequent start and stop, acceleration and deceleration, in order to improve the efficiency and processing quality under production, the linear motor marble platform solution can increase the speed to 1M/S, and the acceleration and deceleration can be increased to 1G according to the actual needs of customers.
High precision: In order to meet the processing accuracy of gantry structure laser cutting, the key is to ensure the positioning accuracy and repeatability of the equipment, under the application of CDHD2 servo gantry system performance, increase the positioning compensation function, and achieve high precision important indicators: CDHD2 linear motor gantry marble platform before compensation accuracy: spindle side: two-way, positioning accuracy 24.0um, repeatability 1.5um from the shaft side: two-way, positioning accuracy 17.0um, Repeatability 2.0umCDHD2 linear motor gantry marble platform compensation accuracy: spindle side: two-way, positioning accuracy 2.3um, repeatability 1.4um slave shaft side: two-way, positioning accuracy 2.5um, repeatability 1.1umCDHD2 linear motor gantry servo scheme adopts HD control algorithm, spindle accuracy in place accuracy 2.5um, setting time 0ms, master-slave axis deviation of 1.2um, far better than other control algorithms.
High-precision cutting: cutting arc trajectory with a diameter of 5mm/3mm, the accuracy is within 10um, and the consistency is stable, reaching the industry standard.

LDHD2

直线伺服
Linear drive

温度 Temperature	工作温度为0-55°C，存储温度0-70°C The operating temperature is 0-55°C, and the storage temperature is 0-70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

版本：总线版
Version: Bus version

支持直驱直线电机，直驱旋转电机控制
Supporting direct drive linear motor and controlled by direct drive rotary motor

高性能的HD和HDM控制回路
High-performance HD and HDM control loops

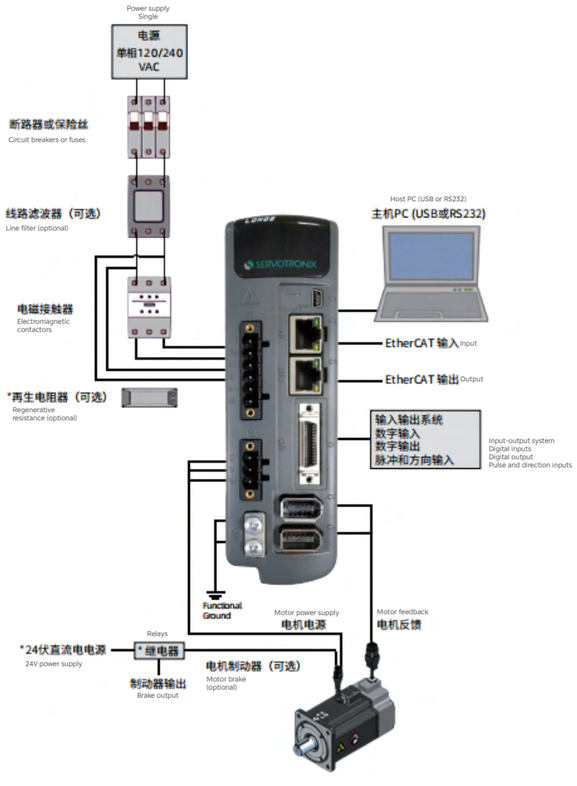
5kHz电流环路带宽
5kHz current loop bandwidth

支持差分脉冲控制
Supporting differential pulse control

支持在线使能，控制模式切换
Supporting online enabling and control mode switching

符合 CE、RoHS 认证
Comply with CE、RoHS certificationstandards

接线图
Wiring Diagram



产品规格参数
Product specifications

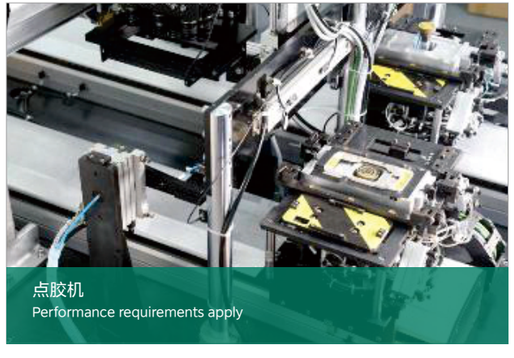
产品型号 Product model	输入电压 Input voltage (VAC)	控制电源 Control power supply (VAC)	输入频率 Input frequency (Hz)	额定电流 Rated current (Arms)	峰值电流 Peak (Arms)	峰值电流持续时间 Peak current duration (S)	PWM频率 PWM frequency (KHz)	工作温度 Operating temperature (°c)	宽 x 高 x 深 Width x height x depth(mm)
Model 3A	单相240 L-N VAC，+10%-15%		50/60	3	9	2	8/16	0~55	
Model 6A				6	18				

产品选型配置
Product selection configuration

接口配置 Interface configuration	
调试口 Debugging port	USB
STO	不支持 Not supported
分频输出 Frequency division output	支持 Support
数字量输入 DI	6路 6 channels
数字量输出 DO	4路 4 channels
全闭环 Full closed loop	不支持 Not supported
直驱抱闸 Direct drive brake	不支持 Not supported
控制模式 Control mode	
控制模式 Control mode	EtherCAT，脉冲 EtherCAT, pulse
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization function	不支持 Not supported
位置比较输出功能 Position comparison output function	不支持 Not supported
探针功能 Probe function	支持 Support

典型行业应用
Typical industry applications

3C行业 3C dispensing and assembly and other industries


点胶机
Performance requirements apply

对性能有较高要求，如要求较高加减速性能以及最高速度要求的场景时，建议使用LDHD2产品
LDHD2 products are recommended for scenarios that require high performance and maximum speed

核心工位 Core station

- 支持HD算法 — HD algorithm is supported
- 支持位置补偿 — Position compensation is supported
- 支持增量式ABZ编码器、BISS-C — Incremental ABZ encoder and BISS-C are supported

性能表现 Performance

- 可使点胶机实现高速、高性能及轨迹运动 — Positioning accuracy< 0.005/160mm
- 点胶精度实测0.015mm — Repeatability +-1um

CDHDE

直线伺服
Linear drive

温度 Temperature	工作温度为0-45°C，存储温度-20-70°C The operating temperature is 0-45°C, and the storage temperature is -20-70°C
湿度 Humidity	湿度：10%～90% Humidity: 10%~90%
防护等级 Ingress Protection	保护等级：IP20，污染程度：IEC60664-1标准2度 Protection level: IP20, pollution degree: IEC60664-1 standard 2 degrees

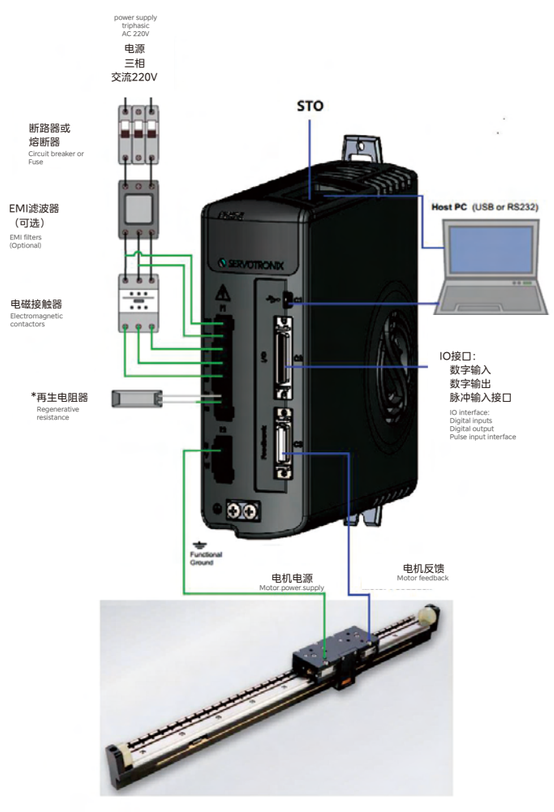
版本：总线版EtherCAT、脉冲版AP
Version: Bus version EtherCAT, pulse version AP

支持刚性表调试方法，方便把位置误差和整定时间最小化
It supports rigid table debugging method to facilitate minimizing of position error and rectification time.

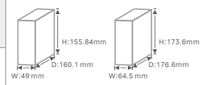
位置补偿功能，通过多段位置偏差校正，消除编码器累计误差的影响
The position compensation function eliminates the effect of accumulated encoder errors through multi-segment position deviation correction.

CE
符合 CE、RoHS 认证
Comply with CE、RoHS certificationstandards

接线图
Wiring Diagram



产品规格参数
Product specifications

产品型号 Product model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 Continuous (Arms)	峰值电流 Peak (Arms)	宽 x 高 x 深 Width x height x depth(mm)
CDHDE-4D52A	220	单相	4.5	18	
CDHDE-0102A	220	三相	10	30	

产品选型配置
Product selection configuration

接口配置 Interface configuration	
调试口 Debugging port	USB
STO	无，特定版本支持 None, specific versions supported
分频输出 Frequency division output	仅AP版本 AP version only
数字量输入 DI	普通4路（AP）、3路（EB），高速2路 Standard 4 channels (AP), 3 channels (EB), high-speed 2 channels
数字量输出 DO	3路 3 channels
全闭环 Full closed loop	不支持 Not supported
直驱抱闸 Direct drive brake	不支持 Not supported
控制模式 Control mode	
控制模式 Control mode	EtherCAT，脉冲 EtherCAT, pulse
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization function	不支持 Not supported
位置比较输出功能 Position comparison output function	不支持 Not supported
探针功能 Probe function	支持 Support

典型行业应用
Typical industry applications

通用行业 General industry

点到点搬运
Point-to-point handling

自动化设备各式无过程精度要求，点对点运动的应用场景都适用该产品
Semiconductors are the core of many industrial equipment, and dicing machines are mainly used in wafers that are cut into independent chips after frosting to prepare for subsequent processes

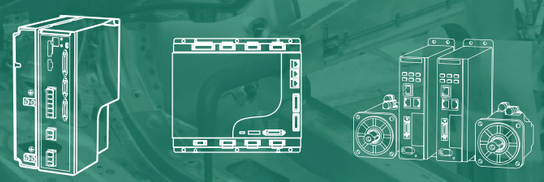
核心工位 Core station

- 经济型直线电机驱动器产品 — Economical linear motor drive products
- 支持简单刚性表调试方法 — Simple rigid table debugging methods are supported
- 支持位置补偿 — Position compensation is supported
- 支持增量式ABZ编码器、BISS-C — Support for incremental ABZ encoders, BISS-C

性能表现 Performance

- 定位精度<0.005/160mm — Positioning accuracy< 0.005/160mm
- 重复精度+-1um — Repeatability +-1um

高创旋转伺服
产品定位
Motion Control Products



CDHD2S-RO

高速高精插补运动
高速龙门控制
全闭环控制
模拟量速度控制
闭环力控
张力控制
…
应用：高端 CNC、半导体、精密光学仪器

BD3S

插补运动
开环力控
探针控制
飞拍控制
…
应用 :CNC/ 激光加工 / 点胶、涂胶等多轴插补设备；固晶机、IC 分选机等高响应、快节拍设备

BD3E

点对点运动
探针控制
…
应用 : 通用自动化、锂电、光伏、激光、包装等

应用要求

CDHD2S-RO 命名规则
CDHD2S-RO Naming rules

CDHD2S - 006 2A EC2 - RO 000
1 2 3 4 5 6

CHDH2S
1 CDHD2S 伺服驱动器 -HD 系列
CDHD2S servo driver -HD series

006
2 功率规格 Power specification

	120/240 VAC			400/480 VAC	
	连续电流 Continuous current [A rms]	峰值电流 Peak current [A rms]		连续电流 Continuous current [A rms]	峰值电流 Peak current [A rms]
1D5	1.5	4.5	003	3	9
003	3	9	006	6	18
4D5	4.5	18	012	12	24
006	6	18	024	24	72
008	8	31.8	030	30	90
010	10	31.8	040	40	120
013	13	31.8	060	60	180

*CDHD2S-060 电压 380VAC/460VAC
*CDHD2S-060 voltage 380VAC/460VAC

2A
3 输入电源 Input Power

符号 Mark	规格 Specifications
2A	中压输入电源 单相 120 L-N VAC +10%-15%50/60 HZ 单相 240L-N VAC+10%-15%50/60HZ 三相 120-240 L-LVAC +10%-15%50/60 HZ Medium voltage input power supply Single-phase 120 L-N VAC +10%-15%50/60 HZ Single-phase 240L-N VAC+10%-15%50/60HZ Three-phase 120-240 L-LVAC +10%-15%50/60 HZ
4D	交流电源输入 输入三相 400L-LVAC+10%-15%50/60 HZ 输入三相 480L-LVAC+10%-15% 50/60 HZ 输入三相 460L-LVAC +10%-15% 50/60HZ 24 VDC 控制板供电 Ac power input Input three-phase 400L-LVAC+10%-15%50/60 HZ Input three-phase 480L-LVAC+10%-15% 50/60 HZ Input three-phase 460L-LVAC +10%-15% 50/60HZ 24 VDC control board power supply

EC2
4 通讯接口 Communication type

符号 Mark	规格 Specifications	模拟输入 Analog input
ECx	EtherCAT、脉冲方向、USB、RS232 EtherCAT, pulse direction, USB, RS232	1 或 2* 1* or 2
AP1	模拟电压，脉冲，USB，RS232 Analog voltage, pulse, USB, RS232	1
	x= 1: 一个模拟输入 , 16 位 x= 2: 两个模拟输入 x= 1: An analog input, 16 bits x= 2: Two analog inputs	* 标准配置 * Standard configuration

RO
5 电机类型 Communication type

空 blank	旋转伺服电机和直线电机 Rotary servo motor and linear motor
RO	仅旋转伺服电机 Rotate the servo motor only

000
6 特殊标准 Special Standards

空 [blank]	标准 Standards

BD3 命名规则
BD3 Naming rules

BD3 E - 2D8 2A EB - □□
1 2 3 4 5

E
1 驱动类型 Driver Type

符号 Mark	规格 Specifications
E	经济型 Economical
S	标准型 Normal form

2A
3 额定输入电压 Rated input voltage

符号 Mark	规格 Specifications
2A	220V
4D	380V

□□
5 伺服驱动器系列 Servo drive series

符号 Mark	规格 Specifications
[空白]Blank	标准型 Normal form
ST	STO
BS	内置电阻 +STO Built-in resistor +STO

2D8
2 额定值 Rating

符号 Mark	规格 Specifications
1D6	1.6 Arms
2D8	2.8 Arms
3D5	3.5 Arms
5D4	5.4 Arms
5D5	5.5 Arms
8D4	8.4 Arms
012	11.9 Arms

EB
4 通讯口 Communication Ports

符号 Mark	规格 Specifications
EB	EtherCAT

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
it is only used to explain the product model and does not mean that all character combinations have corresponding products

CDHD2S-RO

CDHD2S-RO Series

旋转伺服

Rotary drive

业界领先高带宽电流环路
High bandwidth current loop, leading the industry

持久稳定，高规格用料
High specification materials, durable and stable

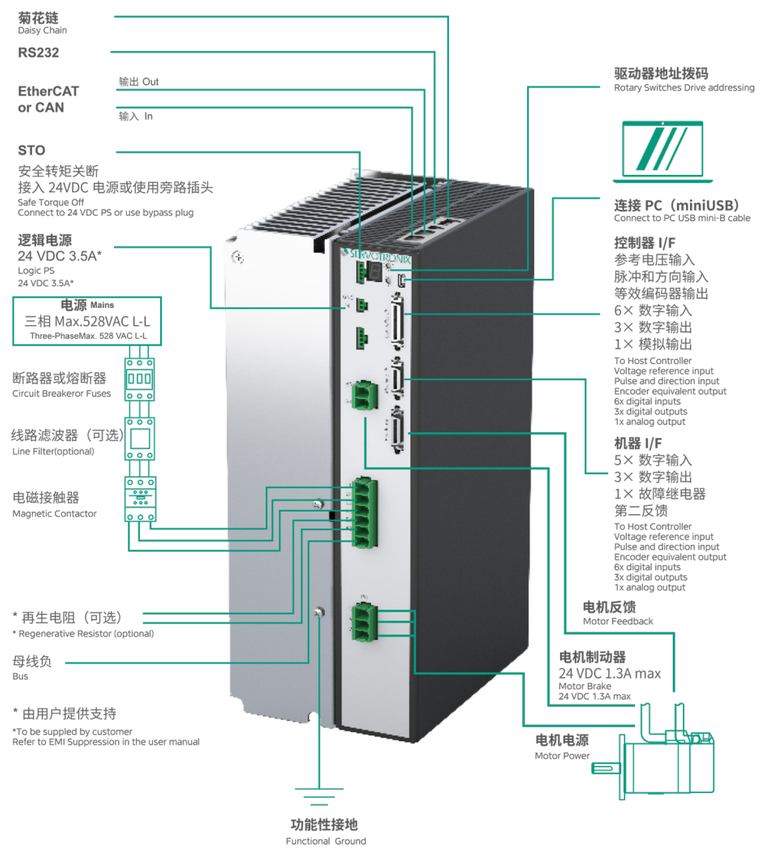
5KHz 频率响应
灵活应对高速高精需求
Current loop up to 5KHz frequency response, flexible response to high speed and high precision requirements

寿命 12 年以上
功耗器件测试寿命
Power dissipation device test life of more than 12 years

功能全面，一机多能
支持龙门、全闭环、PCOM、内置误差补偿、闭环力控等功能
Support gantry, full closed loop, PCOM, built-in error compensation, closed loop force control and other functions

接线图

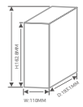
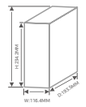
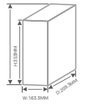
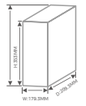
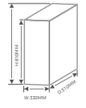
Wiring Diagram



仅为该系列一种型号的接线图，其他型号接线图请见用户手册
The wiring diagram is for only one model of the series. For other models, see the user manual

CDHD2S-RO 功率规格与尺寸

CDHD2S-RO model and specifications

型号 Product type	输入电压 (VAC) Input voltage	主电路输入电源 Main circuit input power	连续电流 (Arms) Continuous current	峰值电流 (Arms) Peak current	宽（mm） wide	高（mm） high	深（mm） deep
CDHD2S-1D52AEC2-RO	220	单相 1ph	1.5	4.5			
CDHD2S-0032AEC2-RO	220	单相 1ph	3	9			
CDHD2S-4D52AEC2-RO	220	单相 / 三相 1ph/3ph	4.5	18			
CDHD2S-0062AEC2-RO	220	单相 / 三相 1ph/3ph	6	18			
CDHD2S-0082AEC2-RO	220	三相 /3ph	8	31.8			
CDHD2S-0102AEC2-RO	220	三相 /3ph	10	31.8			
CDHD2S-0132AEC2-RO	220	三相 /3ph	13	31.8			
CDHD2S-0034DEC2-RO	380	三相 /3ph	3	9			
CDHD2S-0064DEC2-RO	380	三相 /3ph	6	18			
CDHD2S-0124DEC2-RO	380	三相 /3ph	12	24			
CDHD2S-0244DEC2-RO	380	三相 /3ph	24	72			
CDHD2S-0304DEC2-RO	380	三相 /3ph	30	90			
CDHD2S-0404DEC2-RO	380	三相 /3ph	40	120			
CDHD2S-0604DEC2-RO	380	三相 /3ph	60	180			

CDHD2S-RO 技术规格
CDHD2S-RO Technical Specificaiton

特性 peculiarity		CDHD2S-RO 规格 Product type
电机 Motor	类型 type	旋转伺服电动机（PH3、P3S、P3G 系列电机） Rotary servo motor (PH3, P3S, P3G series motor)
	编码器 encoder	23bit 单 / 多圈光电编码器 23bit single/multi-turn photoelectric encoder
	电机相位 Motor phase	自动配置电机相位、编码器方向 Automatic configuration of motor phase, encoder direction
操作模式 Operation mode	可选控制模式 Optional control mode	电流 (转矩) 控制、速度控制、位置控制、HD 控制、双回路控制、龙门控制 Current (torque) control, speed control, position control, HD control, double circuit control, gantry control
电流 (转矩) 控制 Current (torque) Controls	性能 property	更新速率 31.25 μ s(32KHz)，输出波形正弦波 Update rate 31.25 μ s(32KHz), output waveform sine wave
	控制回路 Control loop	DQ，PI，前馈 DQ, PI, feed forward
	参考命令 * Reference command *	模拟直流电压 ±10V，串行 RS232 或 USB，EtherCAT Analog DC voltage ±10V, serial RS232 or USB, EtherCAT
	自动调谐 Automatic tuning	自动设置电流控制回路参数 Automatic setting of current control loop parameters
速度控制 Speed control	性能 property	更新速率 125 μ s(8kHz) Update rate 125 μ s(8kHz)
	参考命令 Reference command	模拟直流电压 ±10V，串行 RS232 或 USB*， EtherCAT Analog DC voltage ±10V, serial RS232 or USB*, EtherCAT
位置控制 Position control	性能 property	更新速率 250 μ s(4kHz) Update rate 250 μ s(4kHz)
	控制回路 Control loop	PID 和前馈 PID and feedforward
	参考命令 * Reference command	电子齿轮传动脉冲和方向，串行 RS232 或 USB， EtherCAT Electronic gear drive pulse and direction, serial RS232 or USB, EtherCAT
HD 控制 HD control	性能 property	更新速率 125 μ s(8kHz) Update rate 125 μ s(8kHz)
	控制回路 Control loop	非线性控制算法提供低跟踪误差、零或最小稳定时间平稳运动； 包含自适应前馈特性，运动结束时应用，以达到零或最小的稳定时间。 Nonlinear control algorithm provides low tracking error, zero or minimum stable time smooth motion; Contains adaptive feedforward features that are applied at the end of the movement to achieve zero or minimum stability time.
	滤波器 filter	一个二阶低通滤波器，两个陷波滤波器，以及处理柔性和共振系统的其他滤波器 A second-order low-pass filter, two notch filters, and other filters dealing with flexible and resonant systems
	参考命令 * Reference command	速度：模拟直流电压 ±10V，串行 RS232 或 USB，EtherCAT 位置：脉冲串，串行 RS232 或 USB，EtherCAT Speed: Analog DC voltage ±10V, serial RS232 or USB, EtherCAT Location: Pulse string, serial RS232 or USB, EtherCAT
	自动调谐 Automatic tuning	自动惯性负载测量，HD 控制回路参数自动设定和优化。 Automatic inertial load measurement, HD control loop parameters automatic setting and optimization.
龙门控制 Gantry control	控制回路 Control loop	H 型机械结构的位置控制 Position control of H-type mechanical structure
制动器 brake	方法 method	控制制动，动态制动，电机机电制动。 Controlled braking, dynamic braking, motor electromechanical braking.
数码管 Nixie tube	用户界面 User interface	7 段 LED（绿色），显示驱动器状态 7-segment LED (green), showing the driver status
GUI	用户界面 User interface	基于 windows 的 ServoStudio2 应用程序 Windows-based ServoStudio2 application
	功能 Feature	设置连接、驱动信息、电源信息、电机、反馈、输入 / 输出选择 / 配置、动作设置 / 调谐、故障历史 / 显示、设置向导、专家视图 Set connection, drive information, power information, motor, feedback, input/output selection/configuration, Action Settings/tuning, fault history/display, Setup Wizard, Expert view
运动单位 Motor unit	位置 position	转速、计数、度数 Speed, count, degree
	速率 speed	Rps、rpm、deg/s
	加速 / 减速 Acceleration/deceleration	rps/s、rpm/s、deg/s2

BD3 系列
BD3 Series

旋转伺服
Rotary drive

开环力控
Open-loop force control

350% 峰值过载
350% peak overload

稳定可靠 简单易用
Stable, reliable and easy to use

BD3S 3.2kHZ 速度环响应带宽
BD3S 3.2kHZ Velocity loop response bandwidth

搭配 20bit 编码器分辨率
With a 20bit encoder resolution

隐藏式电池仓，连接线整洁稳定
The cable is clean and stable

强弱电分离设计，因为 EMC 问题引起的莫名其妙故障会显著降低
Unexplained failures due to EMC problems are significantly reduced

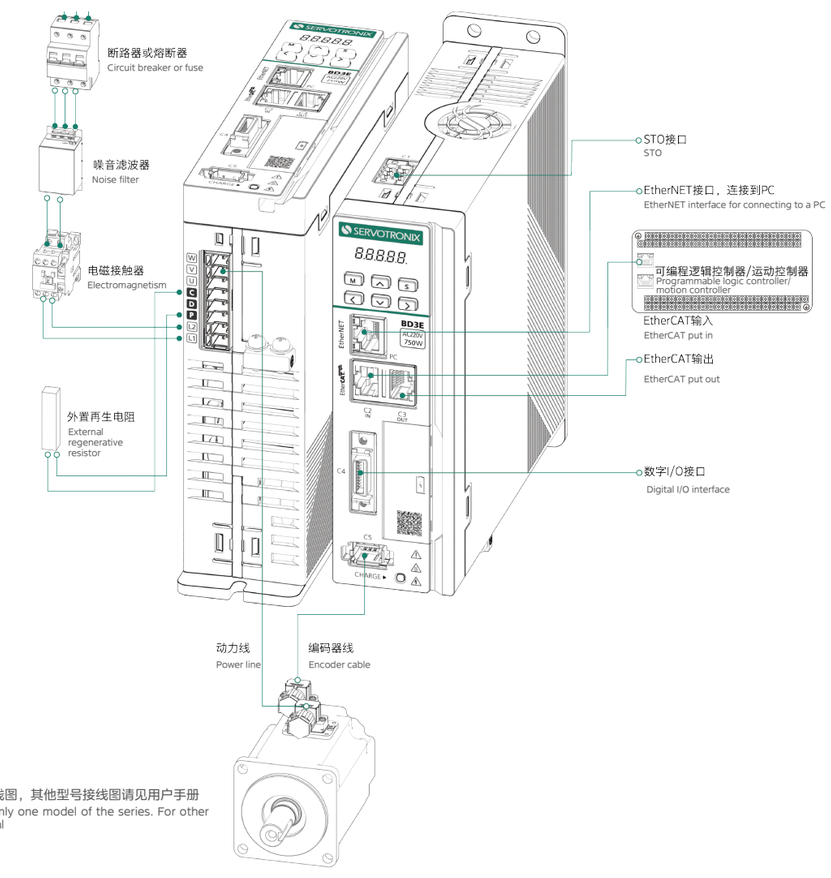
整定过程位移小，无振动，不会对物料造成损伤
基于机械模型频域分析参数整定
The setting process is small displacement, no vibration will not cause damage to the material

六按键操控面板，减少操作步骤且手感舒适
Reduced operation steps and comfortable hand feel

专家模式，通过 HDM 扫频建模，让控制更加得心应手
Expert mode makes control easier with HDM sweep modeling

400W 可选内置再生电阻机型，减少电柜安装空间，持续过载性能显著提升
Reduce the installation space of the electric cabinet, and significantly improve the continuous overload performance

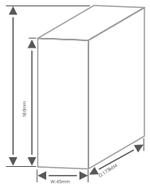
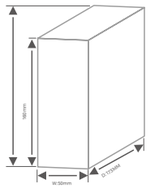
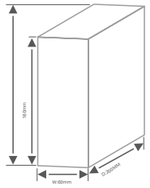
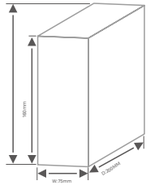
接线图
Wiring Diagram



仅为该系列一种型号的接线图，其他型号接线图请见用户手册
The wiring diagram is for only one model of the series. For other models, see the user manual

BD3 系列功率规格与尺寸

BD3 Series Servo Drive Model and Specifications

型号 Product type	功率 Power	主电路输入电源 Main circuit input power	连续电流 (Arms) Continuous current	峰值电流 (Arms) Peak current	宽 X 高 X 深 WXDXH(MM)
BD3E-1D62AEB	200	1ph AC 200V-240V+10%~-10%, 50/60Hz	1.6	5.8	
BD3S-1D62AEB	200		1.6	5.8	
BD3E-1D62AEB-ST	200		1.6	5.8	
BD3S-1D62AEB-ST	200		1.6	5.8	
BD3E-2D82AEB	400		2.8	9.8	
BD3S-2D82AEB	400		2.8	9.8	
BD3E-2D82AEB-ST	400		2.8	9.8	
BD3S-2D82AEB-ST	400		2.8	9.8	
BD3E-2D82AEB-BS	400		2.8	9.8	
BD3S-2D82AEB-BS	400		2.8	9.8	
BD3E-5D52AEB	750		5.5	16.9	
BD3S-5D52AEB	750		5.5	16.9	
BD3E-5D52AEB-ST	750		5.5	16.9	
BD3S-5D52AEB-ST	750		5.5	16.9	
BD3E-3D54DEB	850	3phAC 380V-440V+10%~-10%, 50/60Hz	3.5	11	
BD3S-3D54DEB	850		3.5	11	
BD3E-3D54DEB-ST	850		3.5	11	
BD3S-3D54DEB-ST	850		3.5	11	
BD3E-5D44DEB	1500		5.4	14	
BD3S-5D44DEB	1500		5.4	14	
BD3E-5D44DEB-ST	1500		5.4	14	
BD3E-5D44DEB-ST	1500		5.4	14	
BD3E-8D44DEB	2000		8.4	20	
BD3S-8D44DEB	2000		8.4	20	
BD3E-8D44DEB-ST	2000		8.4	20	
BD3S-8D44DEB-ST	2000		8.4	20	
BD3E-0124DEB	3000		11.9	29.7	
BD3S-0124DEB	3000		11.9	29.7	
BD3E-0124DEB-ST	3000		11.9	29.7	
BD3S-0124DEB-ST	3000		11.9	29.7	

BD3 系列通用规格

BD3 Technical Specifiations

特性 peculiarity		BD3 规格 BD3 Specifications
操作模式 Operation mode	控制模式 Control mode	电流 (转矩) 控制、速度控制、位置控制、控制模式切换 Current (torque) control, speed control, position control, control mode switching
(转矩) 控制 (torque) control	参考命令 Reference command	EtherCAT、VarCom
	参数整定方式 Parameter setting mode	自动设置电流控制回路参数 Automatic setting of current control loop parameters
速度控制 Speed control	性能 property	2.1kHz
	滤波器 filter	一阶低通滤波器，陷波滤波器，负载扰动观测器，速度观测器 First-order low-pass filter, notch filter, load disturbance observer, velocity observer
	参考命令 Reference command	EtherCAT,VarCom,
位置控制 Position control	性能 property	更新速率 125 μ s(8kHz) Update rate 125 μ s(8kHz)
	控制方式 Control mode	P+ 前馈 P+ feedforward
	参考命令 Reference command	EtherCAT,VarCom
制动器 brake	方法 method	动态制动，电动机再生制动 Dynamic braking, motor regenerative braking.
用户交互 User interaction	操作面板 Operation panel	6 位按键，LED 显示 6 key, LED display
安全控制 * Safety control *	STO	选配 SAFE TORQUE OFF 安全转矩关断 Optional SAFE TORQUE OFF
控制功能 Control function	电机 Electric machine	弱磁控制算法 Weak magnetic control algorithm
高速数字输入 High speed digital input	通道数量 Number of channels	2
普通数字输入 General digital input	通道数量 Number of channels	3
普通数字输出 Ordinary digital output	通道数量 Number of channels	3
控制模式 Control mode		位置控制：轮廓位置控制 (pp)、周期位置控制 (csp) Position control: Contour position Control (pp), Periodic Position control (csp)
		速度控制：轮廓速度控制 (pv)、周期速度控制 (Csv) Speed control: Contour Speed control (pv), Cycle Speed control (Csv)
		转矩控制：轮廓转矩控制 (tq)、周期转矩控制 (cst)Torque control: Contour Torque Control (tq), Periodic Torque Control (cst)
		回零模式 (hm) Return-to-zero mode (hm)
		上述模式通过 EtherCAT 通信指令切换 The above modes are switched using EtherCAT communication instructions
环境规格 Environment specification	保护功能 Protection function	包括但不限于：动态制动 (硬件) 低 / 过电压、过电流、驱动和电动机过热 Including but not limited to: dynamic braking (hardware) low/overvoltage, overcurrent, drive and motor overheating
	合规 compliance	CE 指令：EN61800-3,EN61800-5-1 CE Directive: EN61800-3,EN61800-5-1
		工作温度 0-45° C 不降额，45-55° C 降额 Operating temperature 0-45° C not derated, 45-55° C derated
		存储温度 -20 ~ 65° Storage temperature -20 to 65°
	环境 environment	湿度：10-90%(无凝露) Humidity: 10-90%(no condensation)
		高度：按照 IEC 61800-5-1 标准规定间距要求，使用高度为海拔 1000 米以下。 Height: According to IEC 61800-5-1 standard spacing requirements, the use of the height of 1000 meters above sea level.
		振动：5.88m/s2,10Hz-60Hz Vibration: 5.88m/s2,10Hz-60Hz
		防护等级：IP20 Protection level: IP20
	工作条件 Working condition	污染等级：IEC 60664-1 标准 2 级 Pollution level: IEC 60664-1 standard Level 2
		请勿在下列地点使用：腐蚀性或易燃气体、水油或化学品、粉尘 (包括铁粉) 和盐 Do not use in the following places: corrosive or flammable gases, water oil or chemicals, dust (including iron powder) and salt

典型行业应用

BD3 Typical industry application

锂电行业

锂电模切机
Lithium electric die cutting machine

锂电极片裁切，电机高速 + 凸轮结构裁切极片，高速高节拍稳定运行，长时间跑电机温度稳定在 43.5 度，驱动器 38.5 度，调试性能 + 功能满足客户要求。

Lithium electrode sheet cutting, motor high speed + CAM structure cutting pole sheet, high speed and high beat stable operation, long-term running motor temperature stable at 43.5 degrees, 38.5 degrees driver, debugging performance + function to meet customer requirements.

核心工位 Core station

轴位：模切轴
结构：电机 + 凸轮结构，圆周运动转为凸轮结构上下动作断切膜片

Axis position: die cutting axis
Structure: motor + CAM structure, circular motion to CAM structure up and down action to cut the diaphragm

性能表现 Performance

电机最高速度 2000rpm
跑到设备最高节拍电机速度约 930rpm，监控电机负载率 35%。

Maximum motor speed 2000rpm
Run to the equipment's highest beat motor speed of about 930rpm, monitoring the motor load rate of 35%.

锂电制造 卷绕机
Lithium electric manufacturing winding machine

将电池正 / 负极片及隔膜连续转动卷绕成锂电池电芯，卷针为圆形或方形结构。

The positive/negative electrode sheet and diaphragm of the battery are continuously rotated and wound into a lithium battery cell, and the winding needle is a round or square structure.

核心工位 Core station

卷针轴、放卷轴、送片 / 切刀轴、预卷纠偏轴
卷针轴：进入凸轮，速度波动要求 +-2%，方形卷绕考验加减速段方形电池水平转直角段的速度稳定性及电流波动
放卷轴：速度、力矩模式切换 ，基本上都是速度模式下，考验速度平稳性及伺服带宽

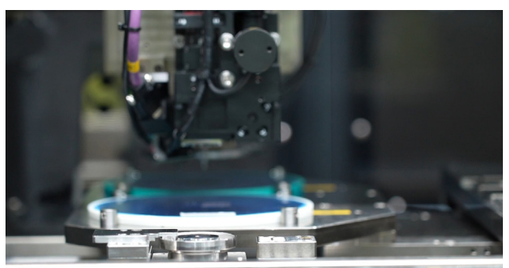
Reel shaft, reel, feed/cutter shaft, prereel correction shaft
Needle shaft: enter the CAM, the speed fluctuation requirement is +-2%, square winding test acceleration and deceleration section square battery horizontal right Angle section speed stability and current fluctuations
Reel: Speed, torque mode switch, basically in the speed mode, test the speed stability and servo bandwidth

性能表现 Performance

张力波动 <=±3%
卷绕对齐度：±0.2mm
1000mm/min 的追切速度下，极片切断位置精度：±0.5mm
卷绕线速度波动：<±1%，圆形卷针结构下，卷绕线速度最高 2000mm/s

Tension fluctuation <=±3%
Winding alignment: ±0.2mm
At the cutting speed of 1000mm/min, the cutting position accuracy of the pole slice is ±0.5mm
Winding line speed fluctuation: <±1%, circular winding needle structure, winding line speed up to 2000mm/s

半导体行业



半导体 倒装固晶机
Semiconductor flip cementing machine

LED 固晶机，3 个上下料工位，原先使用步进电机，速度慢，电机温升高，无法满足整机 UPH60K 要求。

LED solidification machine, 3 loading and unloading stations, originally used stepper motor, slow speed, high motor temperature rise, can not meet the UPH60K requirements of the whole machine.

核心工位 Core station

轴位：上下搬运轴，原始配置为步进电机
结构：同步带 + 丝杆 Z 轴

Shaft position: up and down handling shaft, originally configured as a stepper motor
Structure: synchronous belt + screw Z axis

性能表现 Performance

运动距离 300mm，1s 往返，电机最高运行速度 3000rpm；
连续循环运动 2 小时，电机负载率 25% 温度稳定在 36 度（室温 27 度）；
系统实时监控电机定位精度，总体呈现到位快，精度准的效果。

The movement distance is 300mm, 1s round trip, the maximum motor speed is 3000rpm;
Continuous cycle movement for 2 hours, the motor load rate 25% temperature stable at 36 degrees (room temperature 27 degrees);
The system monitors the positioning accuracy of the motor in real time, and the overall effect is in place fast and accurate.

smart PX 命名规则

smart PX Naming rules

PX - 6 A - 2A - EC - RO - ST - M C

1 2 3 4 5 6 7 8 9

PX 1 系列号 Serial number

标识字母 Mark	含义 Meaning
PX	smartPX 系列 smartPX 系列

6 2 轴数 Number of axes

标识字母 Mark	含义 Meaning
6	支持 6 轴 Support 6 axes
4	支持 4 轴 Support4 axes

A 3 功率规格 Power specification

符号 Mark	轴数 Number of axes	连续电流 (A rms)Continuous current	峰值电流 (A rms) Peak current	输入电压 Input voltage
A	1	4.5	13.5	220 VAC
	2	4.5	13.5	220 VAC
	3	3	9	220 VAC
	4	2	6	220 VAC
	5	2	6	220 VAC
	6	2	6	220 VAC
B	1	4.5	13.5	220 VAC
	2	4.5	13.5	220 VAC
	3	4.5	13.5	220 VAC
	4	4.5	13.5	220 VAC

2A 4 电压等级 Voltage level

标识字母 Mark	规格 specification
2A	单相 220V，-10%~+10%，50/60 Hz Single-phase 220V, -10%~+10%, 50/60 Hz
4D	三相 380V，-15%~+10%，50/60 Hz Three-phase 380V, -15%~+10%, 50/60 Hz

EC 5 通讯类型 Communication type

标识字母 Mark	规格 specification
EC	EtherCAT
PN	Profinet
CN	CanOpen

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

RO 6 电机类型 Motor type

标识字母 Mark	规格 specification
R	仅限旋转电机 Rotary motors only
L	支持直线电机 / 旋转电机… Support linear motor/rotary motor...

ST 7 安全功能 Safety function

标识字母 Mark	规格 specification
SA	仅限旋转电机 Rotary motors only
ST	支持直线电机 / 旋转电机… Support linear motor/rotary motor...

M 8 反馈类型 Feedback type

标识字母 Mark	规格 specification
M	支持 senseAR/Tamagawa 编码器 Support senseAR/Tamagawa encoder

C 9 控制器类型 Controller type

标识字母 Mark	规格 specification
MC	SoftMC
CS	CodeSys
NN	未实施 unimplemented

smartpx 多合一驱动

smartpx All-in-one drive

多轴伺服
Multi-axis servo

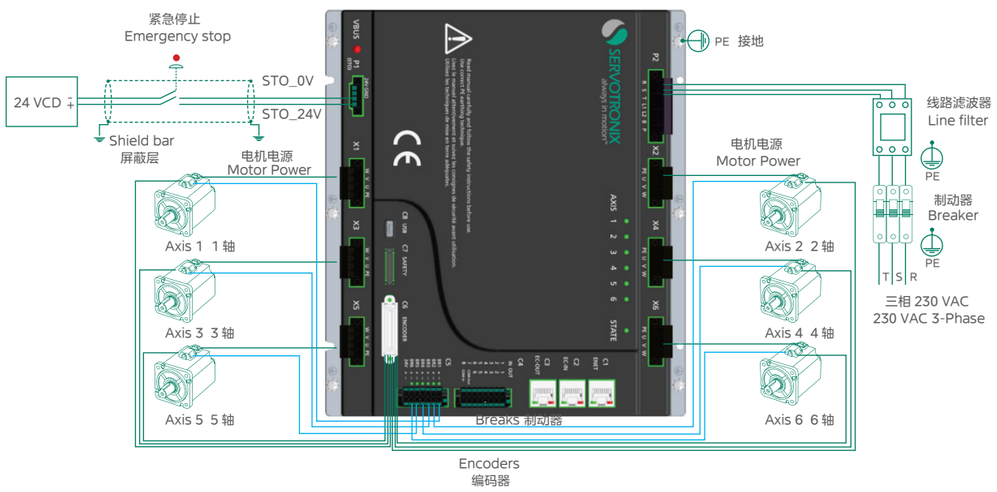
性能优异：基于模型的先进控制算法
Excellent performance: Advanced model-based control algorithm

外形紧凑设计精巧：可以轻松融入任何工作空间
Compact design: easily integrated into any workspace

易于使用：采用现代化网络软件，拥有自动化调整功能、先进的配置工具以及快速的监控能力。
Easy to use: With modern network software, automatic tuning, advanced configuration tools and fast monitoring capabilities.

接线图

Wiring Diagram



仅为该系列一种型号的接线图，其他型号接线图请见用户手册
The wiring diagram is for only one model of the series. For other models, see the user manual

功率规格与尺寸

Power specifications and dimensions

型号 Model number	订货编码 Order code	电压 (V) Voltage	尺寸 (mm) dimension	轴数 Number of axes
PX-6A-2AEC-ROST-T-NN	10701090000421	220V	260×230×82	6 轴 6-axis
PX-4B-2AEC-ROST-T-NN	10701090000621	220V	260×230×82	4 轴 4-axis

通用规格

General specification

接口配置 Interface configuration	
调试口 Debugging port	EtherNET
STO	支持 support
分频输出 Frequency division output	支持 support
数字量输入 Digital input	8 路 Route 8
数字量输出 Digital output	6 路 Route 6
全闭环 Full closed-loop	不支持 nonsupport
直驱抱闸 Direct drive lock	6 路 Route 6
控制模式 Control mode	
控制模式 Control mode	EtherCAT
控制特性 Control characteristic	
龙门同步功能 Gantry synchronization function	开发中 developing
位置比较输出功能 Position comparison output function	开发中 developing
探针功能 Probe function	开发中 developing

典型行业应用

Typical industry application

机器人行业

Delta 机器人 - 涂胶粘盖
Delta Robot - Coated adhesive cap

全自动湿纸巾粘盖机，由两条输送线和一台 DELTA 机器人组成。设备工艺是湿巾输送带把湿巾包有序的输送，当到达视觉定位采集区时，视觉系统把湿巾包的坐标采集储存传送给 DELTA 机器人系统。

Automatic wet paper towel gluing machine, consisting of two conveyor lines and a DELTA robot. The equipment process is that the wet wipes are transported orderly by the wet wipes conveyor belt. When the visual positioning collection area is reached, the vision system will collect and store the coordinates of the wet wipes to the DELTA robot system.

核心工位 Core station

轴位：Delta 3+1 轴联动；

Axis: Delta 3+1 axis linkage

性能表现 Performance

电机最高转速达到 5600rpm，峰值转矩最高达到 3 倍过载，持续转矩输出过载倍数超过 100%；
生产速度，每分钟超过 80 个产品；
涂胶轨迹不变型；

The maximum speed of the motor reaches 5600rpm, the peak torque reaches up to 3 times overload, and the overload multiple of the continuous torque output exceeds 100%;
Production speed, more than 80 products per minute;
Gluing track invariant type;

SCARA 机器人 - 搬运 / 装配
SCARA Robots - Handling/assembly

MT 生产线：SCARA 机器人在电子制造中主要负责电子元件（如电阻、电容、IC 芯片等）的贴片、插件等高速、高精度装配任务，能够精确地将元件放置到 PCB 板上的指定位置

MT production line: SCARA robot is mainly responsible for high-speed and high-precision assembly tasks such as the patch and plug-in of electronic components (such as resistors, capacitors, IC chips, etc.) in electronic manufacturing, and can precisely place components to the specified position on the PCB board

核心工位 Core station

轴位：机器人 4 轴关节

Axis position: Robot 4-axis joint

性能表现 Performance

电机持续过载能力 105%；
标准门字框 305 行程，节拍 0.36s；
重复定位精度 ±0.02mm；

Motor continuous overload capacity 105%;
Standard door frame 305 stroke, beat 0.36s;
Repeated positioning accuracy ±0.02mm;

高创伺服电机
产品定位
Servo Motor Products

PH3E/S 系列电机命名规则
PH3E/S naming rules

PH	3	S	-	M	04	A	0	06	S	T	-	***
1	2	3	4	5	6	7	8	9	10	11	12	13

PH 1 系列号 Serial number

标识字母 Mark	含义 Meaning
PH	PH 系列（Servotronix 品牌） PH Series (Servotronix brand)

3 2 版本号 Version number

符号 Mark	含义 Meaning
3	第 3 代 The third generation

S 3 性能类别 Performance class

符号 Mark	含义 Meaning
S	高性能永磁同步伺服电机 - 光编版 High performance permanent magnet synchronous servo motor - optical editing
E	高性能永磁同步伺服电机 - 磁编版 High performance permanent magnet synchronous servo motor - magnetic editing

4 连接符 Connector

M 4 电机类型（结构类型）
Motor Type (Structure type)

符号 Mark	含义 Meaning
L	小惯量 高速电机（额定 3000rpm） Low inertia High speed motor (rated 3000rpm)
M	中惯量 高速电机（额定 3000rpm） Medium inertia high speed motor (rated 3000rpm)
G	中惯量 大转矩电机（额定 1500rpm）Medium inertia high torque motor (rated 1500rpm)

04 6 额定功率 Rated power

符号 Mark	规格 specification
01	0.1 kW
02	0.2 kW
04	0.4 kW
06	0.6 kW
08	0.75 kW
09	0.85 kW
10	1.0kW
13	1.3 kW
18	1.8 kW

A 7 电压等级 Voltage levels

符号 Mark	规格 specification
A	220V
B	380V

0 8 电磁设计序号
Electromagnetic design serial number

符号 Mark	含义 Meaning
0	电磁设计序号 0Electromagnetic design serial number 0
其他 other	其它电磁设计 Other electromagnetic designs

06 9 机座号 frame number

符号 Mark	规格 specification
04	40mm
06	60mm
08	80mm
13	130mm

S 10 制动器 / 油封 / 轴配置
Brake/oil seal/shaft configuration

符号 Mark	规格 specification
S	带油封 无制动器 No brake with oil seal
E	带油封 带制动器 With oil seal band brake
N	无油封 无制动器 No oil seal no brake
B	无油封 带制动器 No oil seal band brake

T 11 编码器配置

符号 Mark	规格 specification
T	23bit 多圈绝对值光学编码器（仅 PH3S 机型） 23bit multi-turn absolute optical encoder (PH3S model only)
M	20bit 多圈绝对值磁编码器（仅 PH3E 机型）20bit multi-turn absolute magnetic encoder (PH3E model only)
G	20bit 单圈绝对值磁编码器（仅 PH3E 机型） 20bit single-turn absolute magnetic encoder (PH3E model only)

12 连接符 Connector

★★ 13 定制代码 Custom Code

符号 Mark	规格 specification
空 blank	标准品（标准结构、标准键、标准轴） Standard product (standard structure, standard key, standard axis)
**	其它定制代码，详参定制产品规格书。 For other custom codes, refer to the custom product specification.

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

PH3E/S 通用高性能伺服电机

PH3E/S High performance servo motor

IP67 外壳防护等级
IP65 enclosure protection rating

快插接口
Quick-plug interface

≤ 1% 齿槽转矩
Groove torque

超短机身长度
高功率密度
Ultra short body length
High power density

典型工况下机壳
温升低于 60K
Under typical working conditions, the temperature rise of the casing is less than 60K

1 2 3 1级

550W 以上机型符合 GB30253 中 1 级能效要求
Models above 550W meet GB30253 Level 1 energy efficiency requirements

优化磁路设计、结构设计，运行噪音更低
Under typical working conditions, the temperature rise of the casing is less than 60K

搭配多款编码器可选，并且默认使用多摩川数据协议，通用性更强
With a variety of encoders to choose from, and the default use of Tamagawa data protocol, more versatile

20bit 高精度多圈光编
重复定位精度 50 角秒
Standard 20bit high-precision multi-turn optical knitting,Repeat positioning accuracy 50 arcseconds

23bit 高精度多圈光编
重复定位精度 20 角秒
Standard 23bit high-precision multi-turn optical knitting,Repeat positioning accuracy 20 arcseconds

□ 40/60/80 机座产品
□ 40/60/80 stand products
最大转矩过载可达 3.5 倍以上
Maximum torque overload can reach more than 3.5 times
最高转速 7000RPM
Maximum speed 7000RPM

□ 130 机座产品
□ 130/180 stand products
最大转矩过载可达 2.5 倍以上
Maximum torque overload can reach more than 2.5times
最高转速 4500RPM
Maximum speed 4500RPM

符合 CE、UL、UKCA 认证
Comply with CE、ULand UKCA certification standards

选型配置

Selection and configuration

类型 type	机座号 Engine seat number	功率 power [KW]	输入电压 Input voltage (VAC)	转矩值（额定 / 峰值）Torque value (Rated/peak)	转速（额定 / 最高）Rotational speed (Rated/Max)	惯量值（无制动/带制动）Value of inertia (No brake/with brake)	油封 Oil seal	制动器	20bit 磁编 单圈绝对值 20bit magnetic knitting Absolute value of a turn	20bit 磁编 多圈绝对值 20bit magnetic knitting Multiturn absolute value	23bit 光编 多圈绝对值 23bit optical knitting Multiturn absolute value
L 小惯量 高速电机 L Small inertia High speed motor	40	0.1	220	0.32/1.12	3000/7000	0.035/0.042	×	√	PH3E-L01A004BG	PH3E-L01A004BM	PH3S-L01A004BT
							×	×	PH3E-L01A004NG	PH3E-L01A004NM	PH3S-L01A004NT
M 中惯量 高速电机 M Medium inertia High speed motor	60	0.2	220	0.64/2.24	3000/7000	0.23/0.25	√	√	PH3E-M02A006EG	PH3E-M02A006EM	PH3S-M02A006ET
							√	×	PH3E-M02A006SG	PH3E-M02A006SM	PH3S-M02A006ST
		0.4	220	1.27/4.77	3000/7000	0.45/0.455	√	√	PH3E-M04A006EG	PH3E-M04A006EM	PH3S-M04A006ET
							√	×	PH3E-M04A006SG	PH3E-M04A006SM	PH3S-M04A006ST
		0.6	220	1.91/4.69	3000/7000	0.65/0.66	√	√	PH3E-M06A006EG	PH3E-M06A006EM	PH3S-M06A006ET
							√	×	PH3E-M06A006SG	PH3E-M06A006SM	PH3S-M06A006ST
	80	0.75	220	2.39/8.37	3000/7000	1.45/1.50	√	√	PH3E-M08A008EG	PH3E-M08A008EM	PH3S-M08A008ET
							√	×	PH3E-M08A008SG	PH3E-M08A008SM	PH3S-M08A008ST
		1.0	220	3.18/11.13	3000/7000	1.87/1.97	√	√	PH3E-M10A008EG	PH3E-M10A008EM	PH3S-M10A008ET
							√	×	PH3E-M10A008SG	PH3E-M10A008SM	PH3S-M10A008ST
G 中惯量 大转矩 G Medium inertia High torque	130	0.85	220	5.39/16.17	1500/4500	12.5/14.5	√	√	PH3E-G09A013EG	PH3E-G09A013EM	PH3S-G09A013ET
							√	×	PH3E-G09A013SG	PH3E-G09A013SM	PH3S-G09A013ST
			380	5.39/16.17	1500/4500	12.5/14.5	√	√	PH3E-G09B013EG	PH3E-G09B013EM	PH3S-G09B013ET
							√	×	PH3E-G09B013SG	PH3E-G09B013SM	PH3S-G09B013ST
		1.3	220	8.34/20.85	1500/4500	18.5/20.5	√	√	PH3E-G13A013EG	PH3E-G13A013EM	PH3S-G13A013ET
							√	×	PH3E-G13A013SG	PH3E-G13A013SM	PH3S-G13A013ST
			380	8.34/20.85	1500/4500	18.5/20.5	√	√	PH3E-G13B013EG	PH3E-G13B013EM	PH3S-G13B013ET
							√	×	PH3E-G13B013SG	PH3E-G13B013SM	PH3S-G13B013ST
		1.8	220	11.5/28.75	1500/4500	24.2/26.2	√	√	PH3E-G18A013EG	PH3E-G18A013EM	PH3S-G18A013ET
							√	×	PH3E-G18A013SG	PH3E-G18A013SM	PH3S-G18A013ST
			380	11.5/28.75	1500/4500	24.2/26.2	√	√	PH3E-G18B013EG	PH3E-G18B013EM	PH3S-G18B013ET
							√	×	PH3E-G18B013SG	PH3E-G18B013SM	PH3S-G18B013ST

备注：40 法兰电机默认不带油封；如需配置油封，请联络销售人员进行定制。

Note: 40 flange motor without oil seal by default; If you need to configure oil seals, please contact the sales staff for customization.

P3 系列电机命名规则

P3 naming rules

P	3	S	-	L	A5	A	2	04	N	T	-	***
1	2	3	4	5	6	7	8	9	10	11	12	13

P　1 代系名称 Generation name

符号 Symbol	规格 Specification
P	高创伺服电机产品代号 servo motor product code

3　2 代系号 Generation system number

符号 Symbol	规格 Specification
3	第三代 The third generation

S　3 产品类别 Product Categories

符号 Symbol	规格 Specification
E	小功率通用型旋转伺服电动机（磁编型） Low power universal rotary servomotor
S	小功率通用型旋转伺服电动机（光编型） Low power universal rotary servomotor

L　5 电机类型

Motor Types

符号 Symbol	规格 Specification
L	小惯量 高速（额定 3000rpm） Low inertia high speed (rated 3000rpm)
M	中惯量 高速（额定 3000rpm） Medium inertia high speed (rated 3000rpm)
C	中惯量 中等转速（2000rpm） Medium inertia medium speed (2000rpm)
G	中惯量 大转矩（额定 1500rpm） Medium inertia high torque (rated 1500rpm)

A5　6 额定功率 Rated power

符号 Symbol	规格 Specification
A5	0.05kW
10	1.0kW
15	1.5kW
20	2.0kW
25	2.5kW
29	2.9kW
30	3.0kW

A　7 额定供电 Rated power supply

符号 Symbol	规格 Specification
A	220VAC 3Ph-Y
B	380VAC 3Ph-Y

2　8 设计序号 Design Serial number

A~Z 的 1 位字符，代表不同电磁方案
A to Z one-bit character, representing different electromagnetic schemes.

04　9 机座号 Frame number

符号 Symbol	规格 Specification
04	40mm
10	100mm
13	130mm
18	180mm

符号 Symbol	规格 Specification
40	4.0kW
44	4.4kW
50	5.0kW
55	5.5kW
75	7.5kW

N　10 制动器 / 油封 / 轴配置

Brake/oil seal/shaft configuration

符号 Symbol	规格 Specification
S	带油封 无制动器 标准带键轴（Seal） Standard key shaft with oil seal without brake
E	带油封 带制动器 标准带键轴（Either） Standard band key shaft with oil seal band brake
N	无油封 无制动器 标准带键轴（None） No oil seal no brake standard with key shaft
B	无油封 带制动器 标准带键轴（Brake） No oil seal band brake standard band key shaft

T　11 编码器配置 Encoder configuration

符号 Symbol	规格 Specification
T	Tamagawa 协议 标准款 23bit 光学编码器（仅多圈），仅用于 P3S Tamagawa protocol standard 23bit optical encoder (multi-turn only) for P3S only
J	Tamagawa 协议 标准款 17bit 磁电编码器（仅多圈），仅用于 P3E Tamagawa protocol standard 17bit magneto encoder (multiple turns only) for P3E only

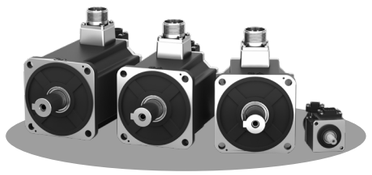
**　13 定制代码 Custom Code

符号 Symbol	规格 Specification
空 blank	标准品（标准结构、标准键、标准轴） Standard product (standard structure, standard key, standard axis)
其它 other	非电磁定制类的客户定制代码，详见规格书 Non-electromagnetic custom custom code, see the specification

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

P3 通用型基础款伺服电机

P3 High power servo motor



全系 IP67 外壳防护等级（除轴贯通部分）
Complete IP67 housing protection class (except shaft through part)

全系标配 23bit 多圈绝对值光编
The whole system is standard with 23bit multi-turn absolute optical knitting

550W 以上机型符合 1 级能效要求
Models above 550W meet Level 1 energy efficiency requirements

符合 CE 认证
Comply with CE certification standards

选型配置

Selection and configuration

机座 Engine bed [mm]	惯量等级 Inertia class	功率 power [KW]	电压 Voltage [VAC]	额度转矩 quota torque [N · m]	额度电流 limit current [Arms]	额度转速 Quota speed [rpm]	最高转速 Maximum rotational speed [rpm]	转子惯量 Rotor inertia [kg*cm²]	编码器配置 Encoder configuration	非抱闸机型 Non-locking models	抱闸机型 Lock type	驱动器 Driver
40	小惯量 Small inertia	0.05	220	0.16	0.58	3000	6000	0.018/0.021	23bit 多圈光编 23bit multi-loop optical knitting	P3S-LA5A204NT	P3S-LA5A204BT	CDHD2S-1D52AEC2-RO
									17bit 多圈磁编 17bit multi-turn magnetic braid	P3E-LA5A204NJ	P3E-LA5A204BJ	CDHD2S-1D52AEC2-RO
100	小惯量 Small inertia	1	220	3.18	6.25A	3000	6000	1.84/2.59	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L10A210ST	P3S-L10A210ET	CDHD2S-0082AEC2-RO
			380	3.18	3.44A	3000	6000	1.84/2.59	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L10B210ST	P3S-L10B210ET	CDHD2S-0064DEC2-RO
		1.5	220	4.78	8.42A	3000	6000	2.75/3.5	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L15A210ST	P3S-L15A210ET	CDHD2S-0102AEC2-RO
			380	4.78	4.86A	3000	6000	2.75/3.5	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L15B210ST	P3S-L15B210ET	CDHD2S-0064DEC2-RO
		2	220	6.37	11.19A	3000	6000	3.65/4.4	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L20A210ST	P3S-L20A210ET	CDHD2S-0132AEC2-RO
			380	6.37	7.05A	3000	6000	3.65/4.4	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L20B210ST	P3S-L20B210ET	CDHD2S-0124DEC2-RO
		2.5	380	7.96	8.74A	3000	6000	4.36/5.11	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L25B210ST	P3S-L25B210ET	CDHD2S-0124DEC2-RO
130	中惯量 Medium inertia	1	220	4.78	5.06A	2000	3000	13.62/14.56	23bit 多圈光编 23bit multi-loop optical knitting	P3S-C10A213ST	P3S-C10A213ET	CDHD2S-0062AEC2-RO
			1	4.78	2.96A	2000	3000	13.62/14.56	23bit 多圈光编 23bit multi-loop optical knitting	P3S-C10B213ST	P3S-C10B213ET	CDHD2S-0034DEC2-RO
		1.5	220	7.16	7.56A	2000	3000	19.6/20.54	23bit 多圈光编 23bit multi-loop optical knitting	P3S-C15A213ST	P3S-C15A213ET	CDHD2S-0082AEC2-RO
			1.5	7.16	4.52A	2000	3000	19.6/20.54	23bit 多圈光编 23bit multi-loop optical knitting	P3S-C15B213ST	P3S-C15B213ET	CDHD2S-0064DEC2-RO
		2	220	9.55	10.19A	2000	3000	24.78/25.72	23bit 多圈光编 23bit multi-loop optical knitting	P3S-C20A213ST	P3S-C20A213ET	CDHD2S-0132AEC2-RO
			2	9.55	5.83A	2000	3000	24.78/25.72	23bit 多圈光编 23bit multi-loop optical knitting	P3S-C20B213ST	P3S-C20B213ET	CDHD2S-0064DEC2-RO
	小惯量 Small inertia	3	380	9.8	10.13A	3000	6000	7.28/8.22	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L30B213ST	P3S-L30B213ET	CDHD2S-0124DEC2-RO
		4	380	12.6	12.96A	3000	6000	10.1/11.04	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L40B213ST	P3S-L40B213ET	CDHD2S-0244DEC2-RO
		5	380	15.8	16.77A	3000	6000	13.3/14.24	23bit 多圈光编 23bit multi-loop optical knitting	P3S-L50B213ST	P3S-L50B213ET	CDHD2S-0244DEC2-RO
180	中惯量 Medium inertia	2.9	380	18.6	10.26A	1500	3000	46.19/51.94	23bit 多圈光编 23bit multi-loop optical knitting	P3S-G29B218ST	P3S-G29B218ET	CDHD2S-0124DEC2-RO
		4.4	380	28.4	15.6A	1500	3000	67.22/72.97	23bit 多圈光编 23bit multi-loop optical knitting	P3S-G44B218ST	P3S-G44B218ET	CDHD2S-0244DEC2-RO
		5.5	380	35	19.77A	1500	3000	110.53/116.28	23bit 多圈光编 23bit multi-loop optical knitting	P3S-G55B218ST	P3S-G55B218ET	CDHD2S-0244DEC2-RO
		7.5	380	48	26.45A	1500	3000	160.45/166.2	23bit 多圈光编 23bit multi-loop optical knitting	P3S-G75B218ST	P3S-G75B218ET	CDHD2S-0304DEC2-RO

PM2 系列电机命名规则

PM2 naming rules

PM2	M	-	04	A	60	#	S	8	S	-	**
1	2		3	4	5	6	7	8	9		10

PM 1 系列号 Serial number

标识字母 Identifying letter	含义 Meaning
PM	PM2 系列 DM Series

M 2 惯量类型 Inertia type

符号 symbol	规格 specification
S	小惯量 Small inertia

04 3 额定输出功率 Rated output power

符号 symbol	含义 Meaning
10	1.0kW
15	1.5kW
20	2.0kW
25	2.5kW
30	3.0kW

A 4 输入电源电压 Input supply voltage

符号 symbol	含义 Meaning
A	220VAC
B	380VAC

60 5 机座号 Engine seat number

符号 symbol	规格 specification
100	□ 100 机座
110	□ 110 机座
130	□ 130 机座

6 电磁方案 Electromagnetic Solutions

符号 symbol	规格 specification
空	默认电磁 Default electromagnetic
A	电磁版本 A Electromagnetic Version A
B	电磁版本 B Electromagnetic Version B

S 7 编码器类型 Encoder type

符号 symbol	含义 Meaning
S	20 位单圈绝对值编码器（磁） 20-bit single-turn absolute encoder (magnetic)
T	20 位多圈绝对值编码器（磁） 20-bit multi-turn absolute encoder (magnetic)

8 8 轴端规格 Shaft end specification

符号 symbol	规格 specification
8	直轴带键带螺孔 Straight shaft with key with screw hole

S 9 选配件 Select accessories

符号 symbol	规格 specification
S	带油封 With oil seal
E	带油封、带制动器 With oil seal, with brake

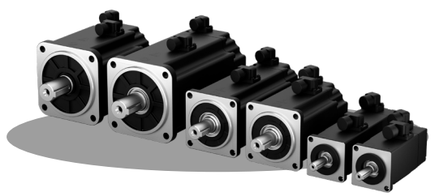
** 10 特殊规格 Special specification

符号 symbol	规格 specification
无	标准款 Standard style
-**	客户定制型，** 可以是字母、数字的不定位数组合 Customized, ** can be an indefinite combination of letters and numbers

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

PM2 通用基础型伺服电机

PM2 series economical servo motor



IP65 外壳防护等级
IP65 enclosure protection rating

≤ 2.5% 齿槽转矩
Groove torque

符合 CE 认证
Comply with CE certification standards

550W 以上机型符合国家 1 级能效标准
Models above 550W meet the national Level 1 energy efficiency standards

标配 20bit 高精度多圈磁编单圈和多圈两个版本
Standard 20bit high-precision multi-turn optical knitting,Single loop and multiple loop versions

6000rpm 最高转速
3.5 倍 最高过载能力
Maximum speed 7000RPM, maximum overload capacity 3.77 times

选型配置

TECHNICAL SPECIFICATIONS

机座号 (mm) Engine seat number	惯量等级 Class of inertia	额定功率 (kW) Rated power	电压等级 (VAC) Voltage level	转矩值 (额定/峰值) Torque value (Rated/peak)	转速 (额定 / 最高) Rotational speed (Rated/Max)	电流规格 (额定 / 最高) Current specification (Rated/Max)	惯量值 (无制动 / 带制动) Value of inertia (No brake/with brake)	油封 Oil seal	制动器 brake	20bit 磁编 单圈绝对值 17bit magnetic knitting Absolute value of a turn	2bit 磁编 多圈绝对值 17bit magnetic knitting Multiturn absolute value
100	小惯量 Small inertia	1000	220	3.18/9.54	3000/6000	7.5/23.4	2.18/2.78	√	√	PM2S-10A100S8E	PM2S-10A100T8E
								√	×	PM2S-10A100S8S	PM2S-10A100T8S
			380	3.18/10.3	3000/6000	3.1/10.6	2.18/2.78	√	√	PM2S-10B100S8E	PM2S-10B100T8E
								√	×	PM2S-10B100S8S	PM2S-10B100T8S
		1500	220	4.78/14.34	3000/6000	9.8/30	3.14/3.74	√	√	PM2S-15A100S8E	PM2S-15A100T8E
								√	×	PM2S-15A100S8S	PM2S-15A100T8S
			380	4.78/14.7	3000/6000	4.1/12.6	3.14/3.74	√	√	PM2S-15B100S8E	PM2S-15B100T8E
								√	×	PM2S-15B100S8S	PM2S-15B100T8S
		2000	380	6.36/19.1	3000/6000	6/19.0	3.14/3.74	√	√	PM2S-20B100S8E	PM2S-20B100T8E
								√	×	PM2S-20B100S8S	PM2S-20B100T8S
		2500	380	7.95/23.9	3000/6000	7.4/22.4	4.48/5.13	√	√	PM2S-25B100S8E	PM2S-25B100T8E
								√	×	PM2S-25B100S8S	PM2S-25B100T8S
110	小惯量 Small inertia	1000	220	3.18/9.54	3000/6000	7.5/23.4	2.18/2.78	√	√	PM2S-10A110S8E	PM2S-10A110T8E
								√	×	PM2S-10A110S8S	PM2S-10A110T8S
			380	3.18/10.3	3000/6000	3.1/10.6	2.18/2.78	√	√	PM2S-10B110S8E	PM2S-10B110T8E
								√	×	PM2S-10B110S8S	PM2S-10B110T8S
		1500	220	4.78/14.34	3000/6000	9.8/30	3.14/3.74	√	√	PM2S-15A110S8E	PM2S-15A110T8E
								√	×	PM2S-15A110S8S	PM2S-15A110T8S
			380	4.78/14.7	3000/6000	4.1/12.6	3.14/3.74	√	√	PM2S-15B110S8E	PM2S-15B110T8E
								√	×	PM2S-15B110S8S	PM2S-15B110T8S
		2000	380	6.36/19.1	3000/6000	6/19.0	3.14/3.74	√	√	PM2S-20B110S8E	PM2S-20B110T8E
								√	×	PM2S-20B110S8S	PM2S-20B110T8S
		2500	380	7.95/23.9	3000/6000	7.4/22.4	4.48/5.13	√	√	PM2S-25B110S8E	PM2S-25B110T8E
								√	×	PM2S-25B110S8S	PM2S-25B110T8S
130	小惯量 Small inertia	3000	380	9.8/29.4	3000/5000	9.4/29.7	9.6/11.5	√	√	PM2S-30B130S8E	PM2S-30B130T8E
								√	×	PM2S-30B130S8S	PM2S-30B130T8S

P3G 系列电机命名规则

PH2-R naming rules

P	3	G	-	C	89B	B	1	20	S	T	-	***
1	2	3	4	5	6	7	8	9	10	11	12	13

P　1 代系名称
Generation name

符号 Symbol	规格 Specification
P	高创伺服电机产品代号 servo motor product code

3　2 代系号
Generation system number

符号 Symbol	规格 Specification
3	第三代 The third generation

G　3 产品类别
Product Categories

符号 Symbol	规格 Specification
G	大功率通用型旋转伺服电动机 High power universal rotary servomotor

C　5 电机类型
Motor Types

符号 Symbol	规格 Specification
B	额定 1500rpm，通用 Rated 1500rpm, general purpose
C	额定 1700rpm，通用 Rated 1700rpm, general purpose
D	额定 2000rpm，通用 Rated 2000rpm, general purpose

89B　6 额定功率
Rated power

符号 Symbol	规格 Specification
75B	7500W
89B	8900W
10C	10kW
15C	15kW
20C	20kW
30C	30kW
36C	36kW
**B	数值 x100 W Value x100 W
**C	数值 x1000 W Value x1000 W

B　7 额定供电
Rated power supply

符号 Symbol	规格 Specification
B	380VAC 3Ph-Y

1　8 电磁设计序号
Design Serial number

A~Z 的 1 位字符，代表不同电磁方案
A to Z one-bit character, representing different electromagnetic schemes.

20　9 机座号
Frame number

符号 Symbol	规格 Specification
20	200mm
26	260mm

S　10 制动器 / 油封 / 轴配置
Brake/oil seal/shaft configuration

符号 Symbol	规格 Specification
S	带油封 无制动器 标准带键轴（Seal） Standard key shaft with oil seal without brake
E	带油封 带制动器 标准带键（Either） Standard band key shaft with oil seal band brake
N	无油封 无制动器 标准带键轴（None） No oil seal no brake standard with key shaft
B	无油封 带制动器 标准带键（Brake） No oil seal band brake standard band key shaft

T　11 编码器配置
Encoder configuration

符号 Symbol	规格 Specification
T	Tamagawa 协议 标准款 23bit 光学编码器（仅多圈）， Tamagawa protocol standard 23bit optical encoder (multi-turn

**　13 定制代码
Custom Code

符号 Symbol	规格 Specification
空 blank	标准品、自然冷却（标准结构、标准键、标准轴） Standard, natural cooling (standard structure, standard key, standard shaft)
F	强制风冷 Forced air cooling
Y	油冷 Oil cooling
L	水冷 water-cooling
***	非电磁定制类的客户定制代码，详见规格书 Non-electromagnetic custom custom code, see the specification

4、12：连接符号，无特殊含义

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

P3G 通用型大功率伺服电机

P3G High power servo motor

选型配置

Selection and configuration

机座 Engine bed [mm]	额度转速 Quota speed [rpm]	最高转速 Maximum rotational speed[rpm]	功率 power [KW]	额度转矩 quota torque [N · m]	额度电流 limit current [Arms]	非抱闸机型 Non-locking models	抱闸机型 Lock type	驱动器 Driver
200	1500	1700	7.9	50	15	P3G-B80BB120ST-F	P3G-B80BB120ET-F	CDHD2S-0244DEC2-RO
			11.8	75	22.4	P3G-B12CB120ST-F	P3G-B12CB120ET-F	CDHD2S-0244DEC2-RO
			14.5	92	27.5	P3G-B15CB120ST-F	P3G-B15CB120ET-F	CDHD2S-0304DEC2-RO
			18.1	115	34.5	P3G-B18CB120ST-F	P3G-B18CB120ET-F	CDHD2S-0404DEC2-RO
			23.6	150	44.7	P3G-B24CB120ST-F	P3G-B24CB120ET-F	CDHD2S-0604DEC2-RO
	1700	2000	8.9	50	16.8	P3G-C90BB120ST-F	P3G-C90BB120ET-F	CDHD2S-0244DEC2-RO
			13.4	75	25.4	P3G-C13CB120ST-F	P3G-C13CB120ET-F	CDHD2S-0304DEC2-RO
			16.4	92	31	P3G-C16CB120ST-F	P3G-C16CB120ET-F	CDHD2S-0304DEC2-RO
			20.5	115	38.8	P3G-C21CB120ST-F	P3G-C21CB120ET-F	CDHD2S-0404DEC2-RO
			26.7	150	50.5	P3G-C27CB120ST-F	P3G-C27CB120ET-F	CDHD2S-0604DEC2-RO
	2000	2500	10.5	50	19.6	P3G-D11BB120ST-F	P3G-D11BB120ET-F	CDHD2S-0244DEC2-RO
			15.7	75	29.8	P3G-D16CB120ST-F	P3G-D16CB120ET-F	CDHD2S-0304DEC2-RO
			19.4	92	37.1	P3G-D19CB120ST-F	P3G-D19CB120ET-F	CDHD2S-0404DEC2-RO
			24.1	115	45.7	P3G-D24CB120ST-F	P3G-D24CB120ET-F	CDHD2S-0604DEC2-RO
			31.4	150	59	P3G-D31CB120ST-F	P3G-D31CB120ET-F	CDHD2S-0604DEC2-RO
260	1500	1700	26.7	170	48	P3G-B27CB126ST-F	/	CDHD2S-0604DEC2-RO
	1700	2000	30.2	170	59.2	P3G-C30CB126ST-F	/	CDHD2S-0604DEC2-RO

PH2-R 系列电机命名规则

PH2-R naming rules

PH2-R 04 A 2 30 3 5 M5 0 D***

1 2 3 4 5 6 7 8 9 10 11 12

PH2 1 系列号 Serial number

标识字母 Identifying letter	含义 Meaning
PH2	PRHD2 伺服电机 PRHD2 servo motor

R 2 惯量类型 Type of inertia

符号 symbol	含义 Meaning
R	机器人定制 Robot optimization inertia

04 3 法兰尺寸 Flange size

符号 symbol	含义 Meaning
04	40mm
06	60mm
08	80mm

A 4 绕组设计类型（具体规格详见参数表）

Winding design type (see parameter table for specific specifications)

符号 symbol	含义 Meaning
A	A 型 Type A
B	B 型 Type B

2 5 额定电压 Rated voltage

符号 symbol	规格 specification
2	230VAC

30 6 额定转速 Rated speed

符号 symbol	规格 specification
30	3000 rpm

3 7 轴伸 / 油封 Shaft extension/oil seal

符号 symbol	含义 Meaning
2	带键轴 Tape key
3	带键轴，油封 With key, oil seal
4	定制轴 custom
5	定制轴，油封 Custom, oil seal

5 8 外壳防护等级 Case protection class

符号 symbol	规格 specification
5	IP65

M5 9 反馈类型 Feedback type

符号 symbol	规格 specification
M5	多圈绝对 20 位磁编码器（Tamagawa 23 位协议） Multi-turn absolute 20-bit magnetic encoder (Tamagawa 23-bit protocol)

0 10 制动器 brake

符号 symbol	规格 specification
0	无制动器 Without brake
1	带制动器 Band brake

D 11 接口类型 Interface type

符号 symbol	规格 specification
D	带连接器线缆 Connector with cable

*** 12 特殊规格 Special Options

符号 symbol	规格 specification
Blank	标准品 Standard
***	定制品 custom

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品

It is only used to explain the product model and does not mean that all character combinations have corresponding products

PH2-R 系列行业定制伺服电机

PH2-R series Industry customized servo motor

IP65 外壳防护等级

IP65 enclosure protection rating

≤ 1.5% 齿槽转矩

Groove torque

550W 以上机型符合国家 1 级能效标准

Models above 550W meet the national Level 1 energy efficiency standards

符合 CE、UL 认证

Comply with CE and UL certification standards

超短机身长度
高功率密度

Ultra short body length
High power density

标配 20bit 多圈磁编
重复定位精度 50 角秒

Standard 20bit multi-turn magnetic knittingMagnetic knitting
Repeat positioning accuracy 50 arcseconds

8000rpm 最高转速

3.5 倍 最高过载能力

Maximum speed 7000RPM, maximum overload capacity 3.77 times

功率 power

0.05kW~0.75kW
220V

选型配置

Selection and configuration

电压等级 (VAC) Voltage level	机座号 (mm) Engine seat number	额定功率 (kW) Rated power	转矩值 (额定/峰值) Torque value (Rated/peak)	转速 (额定/最高) Rotational speed (Rated/Max)	电流规格 (额定/最高) Current specification (Rated/Max)	惯量值 (无制动 / 带制动) Value of inertia (No brake/with brake)	油封 Oil seal	无制动器 brakeless	带制动器 Band brake
220	40	50	0.16/0.56	3000/8000	1.15/4.3	0.055/0.057	√	PH2-R04A23035M50D	PH2-R04A23035M51D
							×	PH2-R04A23025M50D	PH2-R04A23025M51D
		100	0.32/1.12	3000/8000	1.4/4.9	0.100/0.102	√	PH2-R04B23035M50D	PH2-R04B23035M51D
							×	PH2-R04B23025M50D	PH2-R04B23025M51D
	60	200	0.64/2.24	3000/8000	2.2/8.5	0.21/0.226	√	PH2-R06A23035M50D	PH2-R06A23035M51D
		400	1.27/4.45	3000/8000	3.4/12.5	0.42/0.436	√	PH2-R06B23035M50D	PH2-R06B23035M51D
	80	750	2.39/8.36	3000/6000	4.5/18.0	1.53/1.58	√	PH2-R08A23035M50D	PH2-R08A23035M51D

高创线缆 & 端子
Cables & terminals

CDHD/CDHD2 系列
CDHD/CDHD2 Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHD-1D5/003 2A(MV) CDHD2-1D5/003 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447				针 Pin	PINr43030000-00	11201707000289	4pcs	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-19	11201707000464		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P3	电源端子 Power terminal	CONr10000006-06	11201707000465		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										
CDHD-4D5/006 2A(MV) CDHD2-4D5/006 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-19	11201707000464		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414			P3	再生电阻 Regenerative resistance	CONr10000002-10	11201707000317		
			HODr00000026-00	11201707000440				针 Pin	PINrSF3F71GF-00	11201707000532	2pcs	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P4	电源端子 Power terminal	CONr10000005-04	11201707000466		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										
CDHD-008/010/013 2A(MV) CDHD2-008/010/013 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-18	11201707000316		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413				针 Pin	CRPrSJ4F71GF-00	11201703000810	4pcs	
			HODr00000020-00	11201707000439			P3	再生电阻 Regenerative resistance	CONr10000002-14	11201707000318		
	C4	编码器 encoder	CONr00000026-31	11201707000414				针 Pin	CRPrSJ4F71GF-00	11201703000810	2pcs	
			HODr00000026-00	11201707000440			P4	功率电源端子 Power supply terminal	CONr10000003-19	11201707000319		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable					针 Pin	CRPrSJ4F71GF-00	11201703000810	3pcs	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P5	逻辑电源端子 Logic power terminal	CONr10000002-10	11201707000317		
	C8	菊花链 Daisy chain						针 Pin	PINrSF3F71GF-00	11201707000532	2pcs	
CDHD-020/024 2A(MV) CDHD2-020/024 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	逻辑电源端子 Logic power terminal	CONr10000002-25	11201707000303		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P3	功率电源端子 Power supply terminal	CONr10000003-21	11201707000305		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P4	电机 UVW 端子 Motor UVW terminal	CONr10000004-26	11201707000308		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P5	再生电阻 Regenerative resistance	CONr10000002-16	11201707000304		
	C8	菊花链 Daisy chain										
CDHD-003/006/012 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	逻辑电源端子 Logic power terminal	CONr10000002-03	11201707000294		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000020-00	11201707000439			P3	电源端子、再生电阻 Power supply terminal, regenerative resistor	CONr00000006-78	11201707000306		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P4	抱闸端子 Lock terminal	CONr10000002-16	11201707000304		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P5	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHD-024/030 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	逻辑电源端子 Logic power terminal	CONr10000002-03	11201707000294		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413				针 Pin	PINr43030000-00	11201707000294		
			HODr00000020-00	11201707000439			P3	STO 端子 STO terminal	CONr00000004-AS	11201707000328		
	C4	编码器 encoder	CONr00000026-31	11201707000414				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000026-00	11201707000440			P4	抱闸端子 Lock terminal	CONr10000002-16	11201707000304		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P5	电源端子、再生电阻 Power supply terminal, regenerative resistor	CONr00000006-78	11201707000306		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P6	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										
CDHD2-003/006/012/015 1D(LV)	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-74	11201707000323		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-74	11201707000323		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										

CDHD2S-PN 系列

CDHD2S-PN Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHD2S-1D5/003 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-19	11201707000464		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P3	电源端子 Power terminal	CONr10000006-08	11201707000345		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										
CDHD2S-4D5/006 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-19	11201707000464		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414			P3	再生电阻 Regenerative resistance	CONr10000002-10	11201707000317		
			HODr00000026-00	11201707000440				针 Pin	PINrSF3F71GF-00	11201707000532	2pcs	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P4	电源端子 Power terminal	CONr10000005-04	11201707000466		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										
CDHD2S-008/010/013 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	STO 端子 TO terminal	15EDGKNG-3.5-04P-14-1008Z(H)	11201707002095		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P2	电机 UVW 端子 Motor UVW terminal	F9A-7.5-04P-A-0415	11201707002295		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P3	再生电阻、电源端子 Regenerative resistor, power supply terminal	F9A-7.5-07P-A-0403	11201707002275		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHD2S-003/006 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415			P2	逻辑电源端子 Logic power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P3	电源端子 Power terminal	CONr00000006-78	11201707000306		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414			P4	抱闸端子 Lock terminal	CONr10000002-16	11201707000304		
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P5	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										
CDHD2S-012 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cablee			否 no	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415			P2	逻辑电源端子 Logic power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P3	电源端子 Power terminal	CONr00000006-78	11201707000306		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414			P4	抱闸端子 Lock terminal	CONr10000002-16	11201707000304		
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P5	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										
CDHD-024/030 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415			P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		
			HODr00000036-00	11201707000447			P3	逻辑电源端子 Logic power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P4	电源端子 Power terminal	CONr10000002-16	11201707000304		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P5	抱闸端子 Lock terminal	CONr00000006-78	11201707000306		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P6	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										
CDHD2S-040 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415			P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P3	控制电源端子 Control power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414			P5	电源端子 Power terminal	CONr00000006-78	11201707000306		
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P6	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable									
	C8	菊花链 Daisy chain										

CDHD2S-EC/AP/EC-RO 系列

CDHD2S-EC/AP/EC-RO 系列

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHD2S-1D5/003 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	15EDGKNG-3.5-04P-14-1008Z(H)	11201707002095		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P2	电机 UVW 端子 Motor UVW terminal	SC-T3005004SB0X	11201707001995		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P3	电源端子 Power terminal	SC-T3005006SB0X	11201707001996		
	C7	RS232 通讯 RS232 communication 菊花链 Daisy chain	脉冲版本的 232 口集成到 C7（支持 232、菊花链通讯，不标配，可配高松 15EDGKN-3.5-06P 或科发的 KF2EDGKN-3.5-06P，推荐黑色端子） Pulse version 232 port integrated into C7 (support 232, Daisy chain communication, not standard, can be equipped with Takamatsu 15EDGKN-3.5-06P or Kefa KF2EDGKN-3.5-06P, black terminals recommended)									
CDHD2S-4D5/006 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	15EDGKNG-3.5-04P-14-1008Z(H)	11201707002095		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447								
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413			P2	电机 UVW 端子 Motor UVW terminal	SC-T3005004SB0X	11201707001995		
			HODr00000020-00	11201707000439								
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable				P3	再生电阻、电源端子 Regenerative resistor, power supply terminal	SC-T3005007SB0X	11201707001997		
	C7	RS232 通讯 RS232 communication 菊花链 Daisy chain	脉冲版本的 232 口集成到 C7（支持 232、菊花链通讯，不标配，可配高松 15EDGKN-3.5-06P 或科发的 KF2EDGKN-3.5-06P，推荐黑色端子） Pulse version 232 port integrated into C7 (support 232, Daisy chain communication, not standard, can be equipped with Takamatsu 15EDGKN-3.5-06P or Kefa KF2EDGKN-3.5-06P, black terminals recommended)									
CDHD2S-008/010/013 2A(MV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	CONr00000004-AS	11201707000328		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415				针 Pin	PINr43030000-00	11201707000289	4pcs	
			HODr00000036-00	11201707000447			P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-18	11201707000316		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413				针 Pin	CRPrSJ4F71GF-00	11201703000810	4pcs	
			HODr00000020-00	11201707000439			P3	再生电阻 Regenerative resistance	CONr10000002-14	11201707000318		
	C4	编码器 encoder	CONr00000026-31	11201707000414				针 Pin	CRPrSJ4F71GF-00	11201703000810	2pcs	
			HODr00000026-00	11201707000440			P4	功率电源端子 Power supply terminal	CONr10000003-19	11201707000319		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable					针 Pin	CRPrSJ4F71GF-00	11201703000810	3pcs	
	C7	RS232 通讯 RS232 communication	脉冲版本的 232 口集成到 C7（支持 232、菊花链通讯，不标配，可配高松 15EDGKN-3.5-06P 或科发的 KF2EDGKN-3.5-06P，推荐黑色端子） Pulse version 232 port integrated into C7 (support 232, Daisy chain communication, not standard, can be equipped with Takamatsu 15EDGKN-3.5-06P or Kefa KF2EDGKN-3.5-06P, black terminals recommended)				P5	控制电源端子 Control power terminal	CONr10000002-10	11201707000317		
								针 Pin	PINrSF3F71GF-00	11201707000532	2pcs	
CDHD2S-003/006 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447			P2	逻辑电源端子 Logic power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P3	电源端子 Power terminal	CONr00000006-78	11201707000306		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P4	抱闸端子 Lock terminal	CONr10000002-16	11201707000304		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P5	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHD2S-012 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否	P1	STO 端子 STO terminal	15EDGKNM-3.5-04P-14-00A (H)	11201707001435		是
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447			P2	控制电源端子 Control power terminal	15EDGKNM-3.5-02P-14-1000A (H)	11201707001436		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P3	电源端子 Power terminal	CONr00000006-78	11201707000306		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P4	抱闸端子 Lock terminal	CONr10000002-16	11201707000304		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P5	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										
CDHD2S-024/030 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415			P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		
			HODr00000036-00	11201707000447			P3	控制电源端子 Control power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P4	电源端子 Power terminal	CONr10000002-16	11201707000304		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P5	抱闸端子 Lock terminal	CONr00000006-78	11201707000306		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P6	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										
CDHD2S-040 4D(HV)	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否	P1	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		是
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447			P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435		
	C3	机器 I/FMachine I/F	CONr00000020-38	11201707000413								
			HODr00000020-00	11201707000439			P3	控制电源端子 Control power terminal	15EDGKNM-2P2-GSn-3.5	11201707001436		
	C4	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440			P5	电源端子 Power terminal	CONr00000006-78	11201707000306		
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four core crystal head debugging cable				P6	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305		
	C8	菊花链 Daisy chain										

LDHD2 系列

LDHD2 Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
LDHD2-003/006 2AEC	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	电源端子 Power terminal	CONr10000006-92	11201707000875		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C4	机器 I/FMachine I/F	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								
	C5	编码器 encoder	CONrC0207548-00	11201707000776			P2	电机 UVW 端子 Motor UVW terminal	CONr10000003-86	11201707000876		
			HODrC0TS2228-00	11201707000775								
	C6	总线通讯接口 Bus communication interface	CONrC0207548-00	11201707000776								
			HODrC0TS2228-00	11201707000775								

CDHDE 系列
CDHDE Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
CDHDE-4D52AAP CDHDE-0102AAP	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	电源端子 Power terminal	CONr10000006-92	11201707001035		是 yes
	C2	控制器 I/FController I/F	CONr00000036-01	11201707000415								
			HODr00000036-00	11201707000447								
	C3	编码器 encoder	CONr00000026-31	11201707000414			P2	电机 UVW 端子 Motor UVW terminal	CONr10000003-86	11201707001036		
			HODr00000026-00	11201707000440								
CDHDE-4D52AEB CDHDE-0102AEB	C1	mini-usb	mini-usb 伺服调试线 Four core crystal head debugging cable			否 no	P1	电源端子 Power terminal	CONr10000006-92	11201707001035		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C4	控制器 I/FController I/F	HODrC0TS2228-00	11201707000775								
			CONrC0207548-00	11201707000776			P2	电机 UVW 端子 Motor UVW terminal	CONr10000003-86	11201707001036		
	C5	编码器 encoder	CONr00000026-31	11201707000414								
			HODr00000026-00	11201707000440								

BDHDE 系列
BDHDE Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
BDHDE-0032AAP/EB/EC （以及 PlanB） BDHDE-0062AAP/EB/EC （以及 PlanB）	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	电源端子 Power terminal	CONr10000006-92	11201707000875		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C4	控制器 I/FController I/F	CONr00000026-31	11201707000414			P2	电机 UVW 端子 Motor UVW terminal	CONr10000003-86	11201707000876		
			HODr00000026-00	11201707000440								
	C5	编码器 encoder	CONr13940006-00	11201707000855								
BDHDE-0102AEC （以及 PlanB） BDHDE-0132AEC （以及 PlanB）	C1	mini-usb	mini-usb 伺服调试线 mini-usb servo debugging cable			否 no	P1	电源端子 Power terminal	CONr10000006-92	11201707001035		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable									
	C4	控制器 I/FController I/F	CONr00000026-31	11201707000414			P2	电机 UVW 端子 Motor UVW terminal	CONr10000003-86	11201707001036		
			HODr00000026-00	11201707000440								
	C5	编码器 encoder	CONr13940006-00	11201707000855								

BD3E 系列
BD3E Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
BD3E-1D62AEB BD3E-2D82AEB BD3E-5D52AEB BD3E-3D84DEB	C1	STO	随包装附送 STO 插头（仅 ST 或者 BK 版本） STO plug included with package (ST or BK version only)			是 yes	P1	电源和电机连接端子 Power supply and motor connection terminals	SC-T3005008SB0XT-45	11201707001675		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable			否 no						
	C4	控制器 I/FController I/F	HPPCS02CNS-20SBK113S1	11201707001975								
	C5	编码器 encoder	SC-06-4	12119400000273								

BD3S 系列

BD3S Series

型号 type	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 Part number (P/N)	用量 dosage	是否出厂配置 Factory configuration or not	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 encoding	用量 dosage	是否出厂配置 Factory configuration or not
BD3S-1D62AEB BD3S-2D82AEB BD3S-5D52AEB	C1	STO	随包装附送 STO 插头（仅 ST 或者 BK 版本） STO plug included with package (ST or BK version only)			是 yes	P1	电源和电机连接端子 Power supply and motor connection terminals	SC-T3005008SB0XT-45	11201707001675		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable			否 no						
	C4	控制器 I/FController I/F	HPPCS02CNS-20SBK113S1	11201707001975								
	C5	编码器 encoder	SC-06-4	12119400000273								
BD3S-3D54DEB BD3S-5D44DEB BD3S-8D44DEB BD3S-0124DEB	C1	STO	随包装附送 STO 插头（仅 ST 或者 BK 版本） STO plug included with package (ST or BK version only)			是 yes	P1	电源和电机连接端子 Power supply and motor connection terminals	9EDGK-7.5-09P-13-1051Z(H)	11201707002135		是 yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 Select the Super 6 network cable			否 no						
	C4	控制器 I/FController I/F	HPPCS02CNS-20SBK113S1	11201707001975								
	C5	编码器 encoder	SC-06-4	12119400000273								

BDHDE 高创旋转线缆 BDHDE+PH2

BDHDE High innovation rotary cable

机座 Engine bed	功率 power	惯量等级 Class of inertia	额定 / 最高转速 Rated/maximum speed	电压等级 Voltage level	额定 / 峰值电流 Rated/peak current (Arms)	电机型号 Motor type	BDHDE 驱动器型号 BDHDE driver model	动力电缆（非柔性）Power cable (non-flexible)	动力电缆（柔性）Power cable (flexible)	编码器线（非柔性）Encoder cable (non-flexible)	编码器线（柔性）Encoder cable (flexible)	控制器 I/F Controller I/F
40	0.05	小惯量 Small inertia	3000/6000	220	0.9/3.3	PH2-L04A230 ◇ 5## □ D	BDHDE-1D52A	带制动 Band brake： CBLPWPH210001D0XX 无制动 no-brake： CBLPWPH210000D0XX	带制动 Band brake： CBLPWPH220001D0XX 无制动 no-brake： CBLPWPH220000D0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH21S301D0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH21T201D0XX M3 编码器 M3 encoder： CBL-FBPH21M301D0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH22S301D0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH22T201D0XX M3 编码器 M3 encoder： CBL-FBPH21M301D0XX	C4 端子 C4 terminal： CONr00000026-31 HODr00000026-00
		中惯量 Medium inertia			0.45/1.6	PH2-M04A230 ◇ 5## □ D						
	0.10	小惯量 Small inertia			0.85/2.9	PH2-L04B230 ◇ 5## □ D						
		中惯量 Medium inertia			0.9/3.1	PH2-M04B230 ◇ 5## □ D						
60	0.20	小惯量 Small inertia			1.5/5.7	PH2-L06A230 ◇ 5## □ D	BDHDE-1D52A					
		中惯量 Medium inertia			1.7/6.1	PH2-M06A230 ◇ 5## □ D						
	0.40	小惯量 Small inertia			2.9/11.2	PH2-L06B230 ◇ 5## □ D	BDHDE-0032A					
		中惯量 Medium inertia			2.8/9.8	PH2-M06B230 ◇ 5T5 □ DR						
80	0.75	小惯量 Small inertia			4.5/16.6	PH2-L08A230 ◇ 5## □ D	BDHDE-0062A					
		中惯量 Medium inertia			4.5/16.9	PH2-M08B230 ◇ 5T5 □ DR						
100	1.00	小惯量 Small inertia	3000/5000		6/20.5	PH2-L10A230 ◇ 5## □ A	BDHDE-0062A	带制动 Band brake： CBLPWPH210001A0XX 无制动 no-brake： CBLPWPH210000A0XX	带制动 Band brake： CBL-PWPH220001A0XX 无制动 no-brake： CBL-PWPH220000A0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH21S301A0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH21T201A0XX M3 编码器 M3 encoder： CBL-FBPH21M301A0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH22S301A0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH22T201A0XX M3 编码器 M3 encoder： CBL-FBPH21M301A0XX	
	1.50	小惯量 Small inertia			10/34.2	PH2-L10B230 ◇ 5## □ A	BDHDE-0102A					
	2.00	小惯量 Small inertia			12/37.3	PH2-L10C230 ◇ 5## □ A	BDHDE-0132A					
130	1.00	中惯量 Medium inertia	1500/2000		5.6/16.8	PH2-M13A215 ◇ 5## □ A	BDHDE-0062A					
	1.50	中惯量 Medium inertia			8.7/26.1	PH2-M13B215 ◇ 5## □ A	BDHDE-0102A					
	1.10	中惯量 Medium inertia	2000/3000		7.5/21	PH2-M13C220 ◇ 5## □ A	BDHDE-0102A					
	1.75	中惯量 Medium inertia			11.5/33	PH2-M13D220 ◇ 5## □ A	BDHDE-0132A					
	2.00	中惯量 Medium inertia			12.7/38.1	PH2-M13B220 ◇ 5## □ A						
	3.00	小惯量 Small inertia	3000/5000		9.2/30	PH2-L13A430 ◇ 5## □ A	BDHDE-0102A	带制动 Band brake：CBLPWPH210001A1XX 无制动 no-brake：CBLPWPH210000A1XX	带制动 Band brake： CBL-PWPH220001A1XX 无制动 no-brake： CBL-PWPH220000A1XX			
	4.00	小惯量 Small inertia			12/38	PH2-L13B430 ◇ 5## □ A	BDHDE-0132A					
180	3.00	中惯量 Medium inertia	1500/3000		11.8/30	PH2-M18A415 ◇ 5## □ A	BDHDE-0102A					

备注：
1、电机型号 - □：0 代表不带抱闸；1 代表带抱闸。
2、电机型号 - ◇ : 2 带键不带油封；3 带键带油封
3、电机型号 -##: T1 17bit 单圈光编；S3 17bit 单圈磁编；M3 17bit 多圈磁编；T4/T5 23bit 多圈光编；（40 机座无 T4 编码器类型 ,T5 编码器仅用于中惯量 400W、750W 机型；）
4、线缆型号 -XX: 代表电缆长度（03、05、10、15、20），单位为米。
5、 此颜色的 Bundle 组合由于驱动器最大电流的限制，无法达到 3 倍过载

Note:
1, motor model - □ : 0 means no lock; 1 stands for belt lock.
2, motor model - ◇ : 2 with key without oil seal; 3 Oil seal with key
3, motor model -##: T1 17bit single-loop optical knitting; S3 17bit single-coil magnetic braiding; M3 17bit multi-coil magnetic braid; T4/T5 23bit multi-loop optical knitting; (40 frame no T4 encoder type,T5 encoder is only used for medium inertia 400W, 750W models;)
4, cable model -XX: represents the cable length (03, 05, 10, 15, 20), the unit is meters.
5. The Bundle combination of this color cannot reach 3 times overload due to the limitation of the maximum current of the driver

BD3E 高创旋转线缆 BD3E+PM2

BD3E High Innovation Rotary cable

机座 Engine bed	功率 power	惯量等级 Class of inertia	额定 / 最高转速 Rated/maximum speed	电压等级 Voltage level	额定 / 峰值电流 Rated/peak current (Arms)	电机型号 Motor type	BD3E 驱动器型号 BD3E driver model	动力电缆（非柔性） Power cable (non-flexible)	动力电缆（柔性） Power cable (flexible)	编码器线（非柔性） Encoder cable (non-flexible)	编码器线（柔性） Encoder cable (flexible)	控制器 I/F Controller I/F
40	0.10	小惯量 Small inertia	3000/6000	220	1/3.8	PM2S-01A40 □ 8*	BD3E-1D62A	有制动器 Band brake： CBL-PWPH210001D0XX 无制动器 no-brake： CBL-PWPH210000D0XX	有制动器 Band brake： CBL-PWPH220001D0XX 无制动器 no-brake： CBL-PWPH220000D0XX	单圈 20bit 磁编 Single loop 20bit magnetic knitting： CBL-FBPH21S301D0XX 多圈 20bit 磁编 Multi-turn 20bit magnetic knitting： CBL-FBPH21T203D0XX	单圈 20bit 磁编 Single loop 20bit magnetic knitting： CBL-FBPH22S301D0XX 多圈 20bit 磁编 Multi-turn 20bit magnetic knitting： CBL-FBPH22T203D0XX	C4 端子 C4 terminal/ HPPCS02CNS-20SBK113S1
60	0.20	中惯量 Medium inertia			1.5/5.8	PM2M-02A60 □ 8*	BD3E-1D62A					
	0.40	中惯量 Medium inertia			2.4/9.8	PM2M-04A60 □ 8*	BD3E-2D82A					
80	0.75	中惯量 Medium inertia			4.44/16.8	PM2M-08A80 □ 8*	BD3E-5D52A					
130	0.85	中惯量 Medium inertia	1500/4500	220	3.4/8.5	PM2M-09A130 □ 8*	BD3E-7D62A	有制动器 Band brake： CBL-PWPH210001A0XX 无制动器 no-brake： CBL-PWPH210000A0XX	有制动器 Band brake： CBL-PWPH220001A0XX 无制动器 no-brake： CBL-PWPH220000A0XX	单圈 20bit 磁编 Single loop 20bit magnetic knitting： CBL-FBPH21S301A0XX 多圈 20bit 磁编 Multi-turn 20bit magnetic knitting： CBL-FBPH21T203A0XX	单圈 20bit 磁编 Single loop 20bit magnetic knitting： CBL-FBPH22S301A0XX 多圈 20bit 磁编 Multi-turn 20bit magnetic knitting： CBL-FBPH22T203A0XX	
				380	3.4/8.5	PM2M-09B130 □ 8*	BD3E-3D54D					
	1.30	中惯量 Medium inertia		220	5.1/13	PM2M-13A130 □ 8*	BD3E-0122A					
				380	5.1/13	PM2M-13B130 □ 8*	BD3E-5D44D					
	1.80	中惯量 Medium inertia		380	8/20	PM2M-18B130 □ 8*	BD3E-8D44D					
100	1.00	小惯量 Small inertia	3000/6000	220	7.5/23.4	PM2S-10A100 □ 8*	BD3E-7D62A					
				380	3.5/11	PM2S-10B100 □ 8*	BD3E-3D54D					
	1.50	小惯量 Small inertia		220	9.8/30	PM2S-15A100 □ 8*	BD3E-0122A					
				380	5.4/14	PM2S-15B100 □ 8*	BD3E-5D44D					
	2.00	小惯量 Small inertia		380	8.4/20	PM2S-20B100 □ 8*	BD3E-8D44D					
	2.50	小惯量 Small inertia		380	11.9/29.7	PM2S-25B100 □ 8*	BD3E-0124D					
110	1.00	小惯量 Small inertia	3000/6000	220	7.5/23.4	PM2S-10A110 □ 8*	BD3E-7D62A					
				380	3.5/11	PM2S-10B110 □ 8*	BD3E-5D44D					
	1.50	小惯量 Small inertia		220	9.8/30	PM2S-15A110 □ 8*	BD3E-0122A					
				380	5.4/14	PM2S-15B110 □ 8*	BD3E-5D44D					
	2.00	小惯量 Small inertia		380	8.4/20	PM2S-20B110 □ 8*	BD3E-8D44D					
	2.50	小惯量 Small inertia		380	11.9/29.7	PM2S-25B110 □ 8*	BD3E-0124D					
130	3.00	小惯量 Small inertia	3000/5000	380	9.2/30	PM2S-30B130 □ 8*	BD3E-0124D					

备注：
1、电机型号 - □：T 代表 20bit 多圈磁编；S 代表 20bit 单圈磁编。
2、电机型号 -*: S 代表带油封、无制动器；E 代表带油封、带制动器；1 代表无油封、无制动器；B 代表无油封、带制动器；
3、线缆型号 -XX: 代表电缆长度（03、05、10、15、20），单位为米。
Note:
1, motor model - □ : T stands for 20bit multi-coil magnetic knitting; S stands for 20bit single-coil magnetic braid.
2, motor model -*: S represents with oil seal, no brake; E stands for oil seal and brake; 1 means no oil seal, no brake; B stands for no oil seal, with brake;
3, cable model -XX: represents the cable length (03, 05, 10, 15, 20), the unit is meters.

BD3S 高创旋转线缆 BD3S+PH2

BD3S High innovation rotary cable

机座 Engine bed	功率 power	惯量等级 Class of inertia	额定 / 最高转速 Rated/maximum speed	电压等级 Voltage level	额定 / 峰值电流 Rated/peak current (Arms)	电机型号 Motor type	BDHDE 驱动器型号 BDHDE driver model	动力电缆（非柔性） Power cable (non-flexible)	动力电缆（柔性） Power cable (flexible)	编码器线（非柔性） Encoder cable (non-flexible)	编码器线（柔性） Encoder cable (flexible)	控制器 I/F Controller I/F
40	0.05	小惯量 Small inertia	3000/6000	220	0.9/3.3	PH2-L04A230 ◇ 5## □ D	BD3S-1D62A	带制动 Band brake： CBL-PWPH210001D0XX 无制动 no-brake： CBL-PWPH210000D0XX	带制动 Band brake： CBL-PWPH220001D0XX 无制动 no-brake： CBL-PWPH220000D0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH21S301D0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH21T203D0XX M3 编码器 M3 encoder： CBL-FBPH21M301D0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH22S301D0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH22T203D0XX M3 编码器 M3 encoder： CBL-FBPH21M301D0XX	C4 端子 C4 terminal/ HPPCS02CNS-20SBK113S1
		中惯量 Medium inertia			0.45/1.6	PH2-M04A230 ◇ 5## □ D						
	0.10	小惯量 Small inertia	3000/6000	220	0.85/2.9	PH2-L04B230 ◇ 5## □ D						
		中惯量 Medium inertia			0.9/3.1	PH2-M04B230 ◇ 5## □ D						
60	0.20	小惯量 Small inertia	3000/6000	220	1.5/5.7	PH2-L06A230 ◇ 5## □ D						
		中惯量 Medium inertia			1.7/6.1	PH2-M06A230 ◇ 5## □ D						
	0.40	小惯量 Small inertia	3000/6000	220	2.9/11.2	PH2-L06B230 ◇ 5## □ D	BD3S-2D82A					
		中惯量 Medium inertia			2.8/9.8	PH2-M06B230 ◇ 5T5 □ DR	BD3S-2D82A					
80	0.75	小惯量 Small inertia	3000/6000	220	4.5/16.6	PH2-L08A230 ◇ 5## □ D	BD3S-5D52A					
		中惯量 Medium inertia			4.5/16.9	PH2-M08B230 ◇ 5T5 □ DR	BD3S-5D52A					
100	1.00	小惯量 Small inertia	3000/5000	220	6/20.5	PH2-L10A230 ◇ 5## □ A	BD3S-7D62A	带制动 Band brake： CBL-PWPH210001A0XX 无制动 no-brake： CBL-PWPH210000A0XX	带制动 Band brake： CBL-PWPH220001A0XX 无制动 no-brake： CBL-PWPH220000A0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH21S301A0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH21T203A0XX M3 编码器 M3 encoder： CBL-FBPH21M301A0XX	S3/T1 编码器 S3/T1 encoder： CBL-FBPH22S301A0XX T4/T5 编码器 T4/T5 encoder： CBL-FBPH22T203A0XX M3 编码器 M3 encoder： CBL-FBPH21M301A0XX	
				380	3/9	PH2-L10A430 ◇ 5## □ A	BD3S-3D54D					
	1.50	小惯量 Small inertia	3000/5000	220	10/34.2	PH2-L10B230 ◇ 5## □ A	BD3S-0122A					
				380	5/18	PH2-L10B430 ◇ 5## □ A	BD3S-5D44D					
	2.00	小惯量 Small inertia	3000/5000	220	12/37.3	PH2-L10C230 ◇ 5## □ A	BD3S-0122A					
				380	6/18	PH2-L10C430 ◇ 5## □ A	BD3S-8D44D					
130	1.00	中惯量 Medium inertia	1500/2000	220	5.6/16.8	PH2-M13A215 ◇ 5## □ A	BD3S-7D62A					
	1.50	中惯量 Medium inertia	1500/2000	220	8.7/26.1	PH2-M13B215 ◇ 5## □ A	BD3S-0122A					
	1.10	中惯量 Medium inertia	2000/3000	220	7.5/21	PH2-M13C220 ◇ 5## □ A	BD3S-7D62A					
				380	3.8/11.4	PH2-M13C420 ◇ 5## □ A	BD3S-3D54D					
	1.75	中惯量 Medium inertia	2000/3000	220	11.5/33	PH2-M13D220 ◇ 5## □ A	BD3S-0122A					
				380	5.4/16	PH2-M13D420 ◇ 5## □ A	BD3S-5D44D					
	2.00	中惯量 Medium inertia	2000/3000	220	12.7/38.1	PH2-M13B220 ◇ 5## □ A	BD3S-0122A					
	2.40	中惯量 Medium inertia	2000/3000	380	8.1/24	PH2-M13E420 ◇ 5## □ A	BD3S-8D44D					
	3.00	小惯量 Small inertia	3000/5000	380	9.2/30	PH2-L13A430 ◇ 5## □ A	BD3S-0124D	带制动 Band brake： CBL-PWPH210001A1XX 无制动 no-brake： CBL-PWPH210000A1XX	带制动 Band brake： CBL-PWPH220001A1XX 无制动 no-brake： CBL-PWPH220000A1XX			
	4.00	小惯量 Small inertia	3000/5000	380	12/38	PH2-L13B430 ◇ 5## □ A	BD3S-0122A					
180	3.00	中惯量 Medium inertia	1500/3000	380	11.8/30	PH2-M18A415 ◇ 5## □ A	BD3S-0124D					

备注：
1、电机型号 - □：0 代表不带抱闸；1 代表带抱闸。
2、电机型号 - ◇ : 2 带键不带油封；3 带键带油封
3、电机型号 -##: T1 17bit 单圈光编；S3 17bit 单圈磁编；M3 17bit 多圈磁编；T4/T5 23bit 多圈光编；（40 机座无 T4 编码器类型 ,T5 编码器仅用于中惯量 400W、750W 机型；）
4、线缆型号 -XX: 代表电缆长度（03、05、10、15、20），单位为米。

Note:
1, motor model - □ : 0 means no lock; 1 stands for belt lock.
2, motor model - ◇ : 2 with key without oil seal; 3 Oil seal with key
3, motor model -##: T1 17bit single-loop optical knitting; S3 17bit single-coil magnetic braiding; M3 17bit multi-coil magnetic braid; T4/T5 23bit multi-loop optical knitting; (40 frame no T4 encoder type,T5 encoder is only used for medium inertia 400W, 750W models;)
4, cable model -XX: represents the cable length (03, 05, 10, 15, 20), the unit is meters.

东菱伺服系统
产品定位
Servo System Products

DS3E 系列电机命名规则

DS3E naming rules

DS	3	E	-	2D8	2A	AP	-	ST
1	2	3		4	5	6		7

BD　1 系列号 Serial number

符号 symbol	含义 Meaning
BD	高创旋转伺服驱动器
DS	东菱旋转伺服驱动器

2　2 代系　generation

符号 symbol	含义 Meaning
2	第二代 Second generation
3	第三代 third generation

S　3 价格定位 Price positioning

符号 symbol	含义 Meaning
E	经济款 Economical model
S	标准款 Standard style
P	性能款 Performance model
F	功能安全款 Functional safety model

2D8　4 功率 规格　Power Specifications

符号 symbol	连续电流 (A rms) Continuous current	峰值电流 (A rms) Peak current
1D6	1.6	5.6
2D8	2.8	9.8
3D5	3.5	11
……	……	……
012	11.9	29.7

2A　5 电压等级　Voltage levels

符号 symbol	含义 Meaning
2A	单 / 三相 AC 220V Single/three phase
4D	三相 AC 380V three phase

AP　6 通讯类型　Communication Types

符号 symbol	规格 specification
EB	EtherCAT
PN	profinet
CN	CanOpen
AP	脉冲控制 Pulse control

ST　7 特殊规格　Special Specifications

符号 symbol	含义 Meaning
空	标准 Standard
ST	STO
BS	Braking resistor+sto(仅 400W 特制机型) (Only 400W special model)
AI	模拟量输入 Analog input

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品

It is only used to explain the product model and does not mean that all character combinations have corresponding products

DS3E-EB

DS3E-EB3

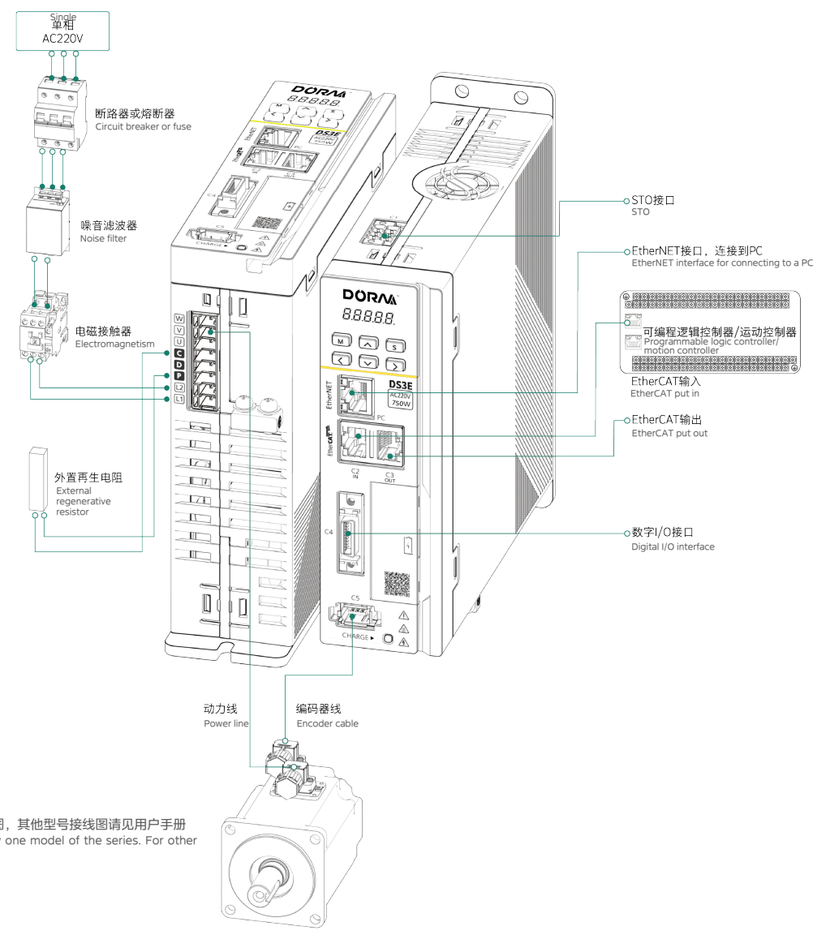
伺服驱动器

Servo driver

- 开环力控
  Open-loop force control
- 350% 峰值过载
  350% peak overload
- 稳定可靠 简单易用
  Stable, reliable and easy to use
- BD3E 2.1kHZ 速度环响应带宽
  Velocity loop response bandwidth
- 搭配 20bit 编码器分辨率
  With a 20bit encoder resolution
- 隐藏式电池仓，连接线整洁稳定
  The cable is clean and stable
- 强弱电分离设计，因为 EMC 问题引起的莫名其妙故障会显著降低
  Unexplained failures due to EMC problems are significantly reduced
- 整定过程位移小，无振动，不会对物料造成损伤
  基于机械模型频域分析参数整定
  The setting process is small displacement, no vibration will not cause damage to the material
- 六按键操控面板，减少操作步骤且手感舒适
  Reduced operation steps and comfortable hand feel
- 专家模式，通过 HDM 扫频建模，让控制更加得心应手
  Expert mode makes control easier with HDM sweep modeling
- 400W 可选内置再生电阻机型，减少电柜安装空间，持续过载性能显著提升
  Reduce the installation space of the electric cabinet, and significantly improve the continuous overload performance

接线图

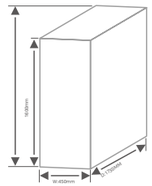
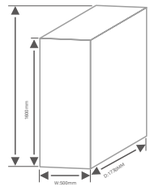
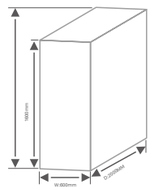
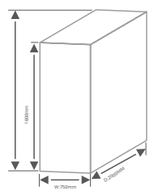
Wiring Diagram



仅为该系列一种型号的接线图，其他型号接线图请见用户手册
The wiring diagram is for only one model of the series. For other models, see the user manual

DS3E-EB 功率规格与尺寸

DS3E-EB model and specifications

型号 Product type	功率 power	输入电压 (VAC) Input voltage	主电路输入电源 Main circuit input power	连续电流 (Arms) Continuous current	峰值电流 (Arms) Peak current	宽 x 高 x 深（mm） Width x height x depth
DS3E-1D62AEB	200	2.3	1ph AC 200V-240V+10%~-10%, 50/60Hz	1.6	5.8	
DS3E-2D82AEB	400	4	1ph AC 200V-240V+10%~-10%, 50/60Hz	2.8	9.8	
DS3E-5D52AEB	750	7.9	1ph AC 200V-240V+10%~-10%, 50/60Hz	5.5	16.9	
DS3E-3D54DEB	850	2.4	3phAC 380V-440V+10%~-10%, 50/60Hz	3.5	11	
DS3E-5D44DEB	1500	3.6	3phAC 380V-440V+10%~-10%, 50/60Hz	5.4	14	
DS3E-8D44DEB	2000	5.6	3phAC 380V-440V+10%~-10%, 50/60Hz	8.4	20	
DS3E-0124DEB	3000	8	3phAC 380V-440V+10%~-10%, 50/60Hz	11.9	29.7	

DS3E-EB 通用规格

DS3E-EB TECHNICAL SPECIFICATIONS

特性 peculiarity		DS3E 规格 Product type
操作模式 Operation mode	控制模式 Control mode	电流（转矩）控制、速度控制、位置控制、控制模式切换 Current (torque) control, speed control, position control, control mode switching
（转矩）控制 (torque) control	参考命令 Reference command	EtherCAT、VarCom
	参数整定方式 Parameter setting mode	自动设置电流控制回路参数 Automatic setting of current control loop parameters
速度控制 Speed control	性能 property	2.1kHz
	滤波器 filter	一阶低通滤波器，陷波滤波器，负载扰动观测器，速度观测器 First-order low-pass filter, notch filter, load disturbance observer, velocity observer
	参考命令 Reference command	EtherCAT， VarCom,
位置控制 Position control	性能 property	更新速率 125 μs（8 kHz）Update rate 125 μs (8 kHz)
	控制方式 Control mode	P+ 前馈 P+ feedforward
	参考命令 Reference command	EtherCAT，VarCom
制动器 brake	方法 method	动态制动，电动机再生制动 Dynamic braking, motor regenerative braking.
用户交互 User interaction	操作面板 Operation panel	6 位按键， LED 显示 6 key, LED display
安全控制 *Safety control *	STO	选配 SAFE TORQUE OFF 安全转矩关断 Optional SAFE TORQUE OFF
控制功能 Control function	电机 Electric machine	弱磁控制算法 Weak magnetic control algorithm
	陷波滤波器 Notch filter	5 路陷波滤波器 5 notch filter
	前馈功能 Feedforward function	可使用（速度 / 转矩）Available (speed/torque)
	负载变动抑制控制 Load variation suppression control	可使用（位置 / 转矩）Available (position/torque)
	摩擦转矩补偿 Friction torque compensation	可使用（位置 / 转矩）Available (position/torque)
	转矩饱和保护功能 Torque saturation protection function	可使用（位置 / 转矩）Available (position/torque)
	转矩限制切换功能 Torque limited switching function	可使用（位置 / 转矩）Available (position/torque)
	增益切换 Gain switching	可使用（位置 / 转矩）Available (position/torque)
	转矩滤波器 Torque filter	可提高高频振动抑制效果 It can improve the effect of high frequency vibration suppression.
高速数字输入 High speed digital input	通道数量 Number of channels	2
普通数字输入 General digital input	通道数量 Number of channels	3
普通数字输出 General digital input	通道数量 Number of channels	3
控制模式 Control mode		位置控制：轮廓位置控制 (pp)、周期位置控制 (csp) Position control: Contour position Control (pp), Periodic Position control (csp)
		速度控制：轮廓速度控制 (pv)、周期速度控制 (csv) Speed control: Contour Speed control (pv), Cycle Speed control (csv)
		转矩控制：轮廓转矩控制 (tq)、周期转矩控制 (cst) Torque control: Contour Torque Control (tq), Periodic Torque Control (cst)
		回零模式 (hm)Return-to-zero mode (hm)
		上述模式通过 EtherCAT 通信指令切换 The above modes are switched using EtherCAT communication instructions
环境规格 Environmental specification	保护功能 Protection function	包括但不限于：动态制动（硬件）低 / 过电压、过电流、驱动和电动机过热 Including but not limited to: dynamic braking (hardware) low/overvoltage, overcurrent, drive and motor overheating
	合规 compliance	CE 指令：EN61800-3,EN61800-5-1
	环境 environment	工作温度 0-45° C 不降额，45-55° C 降额 CE Directive: EN61800-3,EN61800-5-1Operating temperature 0-45° C not derated, 45-55° C derated
		存储温度 -20 ~ 65° Storage temperature -20 to 65°
		湿度：10 - 90%（无凝露）Humidity: 10-90% (no condensation)
		高度：按照 IEC 61800-5-1 标准规定间距要求，使用高度为海拔 1000 米以下。 Height: According to IEC 61800-5-1 standard spacing requirements, the use of the height of 1000 meters above sea level.
		振动：5.88m/s2，10Hz-60HzVibration: 5.88m/s2, 10Hz-60Hz
	工作条件 Working condition	防护等级：IP20Protection level: IP20
		污染等级：IEC 60664-1 标准 2 级 Pollution level: IEC 60664-1 standard Level 2
		请勿在下列地点使用：腐蚀性或易燃气体、水油或化学品、粉尘（包括铁粉）和盐 Do not use in the following places: corrosive or flammable gases, water oil or chemicals, dust (including iron powder) and salt

典型行业应用

DS3E TECHNICAL SPECIFICATIONS

锂电行业

锂电模切机
Lithium electric die cutting machine

锂电极片裁切，电机高速 + 凸轮结构裁切极片，高速高节拍稳定运行，长时间跑电机温度稳定在 43.5 度，驱动器 38.5 度，调试性能 + 功能满足客户要求。

Lithium electrode sheet cutting, motor high speed + CAM structure cutting pole sheet, high speed and high beat stable operation, long-term running motor temperature stable at 43.5 degrees, 38.5 degrees driver, debugging performance + function to meet customer requirements.

核心工位 Core station

轴位：模切轴
结构：电机 + 凸轮结构，圆周运动转为凸轮结构上下动作断切膜片

Axis position: die cutting axis
Structure: motor + CAM structure, circular motion to CAM structure up and down action to cut the diaphragm

性能表现 Performance

电机最高速度 2000rpm
跑到设备最高节拍电机速度约 930rpm，监控电机负载率 35%。

Maximum motor speed 2000rpm
Run to the equipment's highest beat motor speed of about 930rpm, monitoring the motor load rate of 35%.

锂电制造 卷绕机
Lithium electric manufacturing winding machine

将电池正 / 负极片及隔膜连续转动卷绕成锂电池电芯，卷针为圆形或方形结构。

The positive/negative electrode sheet and diaphragm of the battery are continuously rotated and wound into a lithium battery cell, and the winding needle is a round or square structure.

核心工位 Core station

卷针轴、放卷轴、送片 / 切刀轴、预卷纠偏轴
卷针轴：进入凸轮，速度波动要求 +-2%，方形卷绕考验加减速段方形电池水平转直角段的速度稳定性及电流波动
放卷轴：速度、力矩模式切换 ，基本上都是速度模式下，考验速度平稳性及伺服带宽

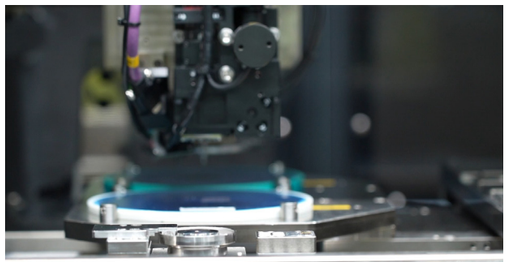
Reel shaft, reel, feed/cutter shaft, prereel correction shaft
Needle shaft: enter the CAM, the speed fluctuation requirement is +-2%, square winding test acceleration and deceleration section square battery horizontal right Angle section speed stability and current fluctuations
Reel: Speed, torque mode switch, basically in the speed mode, test the speed stability and servo bandwidth

性能表现 Performance

张力波动 <=±3%
卷绕对齐度：±0.2mm
1000mm/min 的追切速度下，极片切断位置精度：±0.5mm
卷绕线速度波动：<±1%，圆形卷针结构下，卷绕线速度最高 2000mm/s

Tension fluctuation <=±3%
Winding alignment: ±0.2mm
At the cutting speed of 1000mm/min, the cutting position accuracy of the pole slice is ±0.5mm
Winding line speed fluctuation: <±1%, circular winding needle structure, winding line speed up to 2000mm/s

半导体行业



半导体 倒装固晶机
Semiconductor flip cementing machine

LED 固晶机，3 个上下料工位，原先使用步进电机，速度慢，电机温升高，无法满足整机 UPH60K 要求。

LED solidification machine, 3 loading and unloading stations, originally used stepper motor, slow speed, high motor temperature rise, can not meet the UPH60K requirements of the whole machine.

核心工位 Core station

轴位：上下搬运轴，原始配置为步进电机
结构：同步带 + 丝杆 Z 轴

Shaft position: up and down handling shaft, originally configured as a stepper motor
Structure: synchronous belt + screw Z axis

性能表现 Performance

运动距离 300mm，1s 往返，电机最高运行速度 3000rpm；
连续循环运动 2 小时，电机负载率 25% 温度稳定在 36 度（室温 27 度）；
系统实时监控电机定位精度，总体呈现到位快，精度准的效果。

The movement distance is 300mm, 1s round trip, the maximum motor speed is 3000rpm;
Continuous cycle movement for 2 hours, the motor load rate 25% temperature stable at 36 degrees (room temperature 27 degrees);
The system monitors the positioning accuracy of the motor in real time, and the overall effect is in place fast and accurate.

DS2P
DS2P

伺服驱动器
Servo driver

转矩 3.5 倍过载
Torque 3.5 times overload

品质稳定
调试简单
Stable quality, simple debugging

功率
power
0.1kW~1.5kW

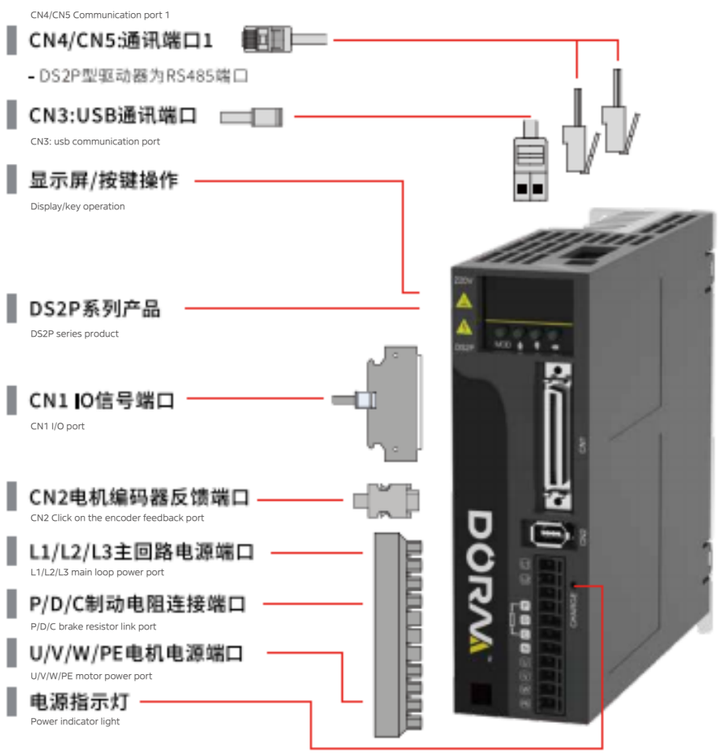
23bit 绝对值编码器
可配备高分辨率 23bit 绝对值编码器
High resolution 23bit absolute encoder available

可设置 4 级陷波滤波器
4-stage notch filter can be set

缩短定位整定时间
Shorten the positioning setting time

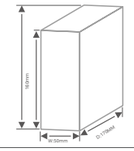
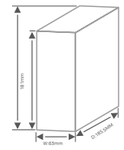
拥有抑制外部扰动功能
It has the function of suppressing external disturbance

接线图
Wiring Diagram



仅为该系列一种型号的接线图，其他型号接线图请见用户手册
The wiring diagram is for only one model of the series. For other models, see the user manual

DS2P 功率规格与尺寸
DS2P model and specifications

型号 Product type	输入电压 (VAC) Input voltage	主电路输入电源 Main circuit input power	连续电流 (Arms) Continuous current	峰值电流 (Arms) Peak current	宽 x 高 x 深（mm） Width x height x depth
DS2P-01AS	220V	1 phase	1.1	4.9	
DS2P-02AS	220V		1.6	5.6	
DS2P-04AS	220V		2.8	9.8	
DS2P-08AS	220V		4.5	16.8	
DS2P-10AS	220V	1/3 phase	7.6	26.6	
DS2P-15AS	220V		10	30	
DS2P-20AS	220V		11.5	34.5	

DS2P 通用规格
DS2P TECHNICAL SPECIFICATIONS

特性 peculiarity			DS2P 规格 Product type
控制方式 Control mode			单相或者三相全波整流 IGBT PWM 控制 正弦波电流驱动方式 Single-phase or three-phase full wave rectification IGBT PWM control, sine wave current drive mode
性能 Performance	速度环频率响应 speed loop frequency response		> 1.6kHz
	速度控制范围内 Speed control within range		1:5000（速度控制范围的下限是额定转矩负载时不停止的条件） 1:500 (the lower limit of the speed control range is the condition that the rated torque load does not stop)
	速度波动率 Velocity fluctuation	负载波动 Load fluctuation	0~100% 负载时：±0.01%（额定转速时） 0~100% load: ±0.01% (rated speed)
		电压波动 Voltage fluctuation	额定电压 ±10%：0.001%（额定转速时） Rated voltage ±10% : 0.001% (rated speed)
		温度波动 Temperature fluctuation	25±25℃：±0.1% 以下（额定转速时） 25±25℃ : ±0.1% or less (rated speed)
	转矩控制精度（再现性） Torque control accuracy (reproducibility)		±3%
	软起动时间设定 Soft start time setting		0~10s（可分别设定加速与减速） 0~10s (acceleration and deceleration can be set separately)
输入 输出信号 Input/output signal	编码器分频脉冲输出 Encoder split pulse output		A 相，B 相：差分输出 Z 相：差分输出或集电极开路输出任意分频 Phase A, phase B: differential output Phase Z: differential output or open collector output arbitrary frequency division
	顺控输入信号 Cis control input signal	可分配的输入信号 Assignable input signal	6 点 伺服接通输入（S-ON）Servo on-input (S-ON) 控制模式切换输入（控制模式切换输入）Control mode switching input (control mode switching input) 正向驱动禁止输入（POT）Forward drive Disable input (POT) 负向驱动禁止输入（NOT）Negative drive disable input (NOT) 偏差计数器清除输入（CLR）Deviation counter clear input (CLR) 报警清楚（A-RST）Alarm Clear (A-RST) 增益切换输入（GAIN）GAIN switching input (GAIN) 指令脉冲禁止输入（INHIBIT）等 Command pulse INHIBIT input (INHIBIT), etc 可进行上述信号的分配以及正 / 负逻辑的变更 The above signals can be assigned and the positive/negative logic can be changed
	顺控输出信号 Cis control output signal	可分配的输出信号 Assignable output signal	4 点 报警信号（ALM）Alarm Signal (ALM) 定位完成信号（COIN）Positioning complete Signal (COIN) Z 冲集电极信号（CZ）Z-stroke Collector Signal (CZ) 外部制动器解除信号（BK）External Brake Release Signal (BK) 伺服准备好（S-RDY）Servo Ready (S-RDY) 可进行上述信号的分配以及正 / 负逻辑的变更 The above signals can be assigned and the positive/negative logic can be changed
通讯功能 Communication function	485 通讯 485 communication	1：N 通信 1: N communication	使用中继的情况下，最大可为 N=31 站 If a trunk is used, the maximum number of stations can be N=31
		轴地址设定 Axis address setting	通过参数设定 By parameter setting
		连接设备 Connecting device	电脑、上位机 Computer, upper computer
	电脑通讯 Computer communication	通讯接口 Communication interface	RS485
显示按键功能 Display key function			7 段 LED*5 位，4 个按键 7 LED*5 bits, 4 keys
再生处理 Regenerative treatment			内置和外置再生电阻器 Built-in and external regenerative resistors
超程（OT）防止功能 Overrange (OT) prevention function			POT、NOT 输入动作时减速停止或者自由运行停止 POT, NOT input action to slow down stop or free running stop
保护功能 Protection function			过电流、过电压、欠电压、过载、再生故障 Over current, over voltage, under voltage, over load, regenerative fault

DS2P 通用规格

DS2P TECHNICAL SPECIFICATIONS

特性 peculiarity			DS2P 规格 Product type
位置控制 Position control	前馈补偿 Feedforward compensation		0~100%（设定单位：1%） 0~100% (set unit: 1%)
	定位完成宽度设定 Positioning completes width setting		0~65565 个编码器单位 0~65565 encoder units
	输入信号 Input signal	输入脉冲种类 Input pulse type	
		输入脉冲形态 Input pulse pattern	线性驱动，集电极开路 Linear drive, open collector
		最大输入脉冲频率 Maximum input pulse frequency	线性驱动：Linear drive: 符合 + 脉冲序列、CW 脉冲 +CWW 脉冲序列：500kppsComply with + pulse sequence, CW pulse +CWW pulse sequence: 500kpps 90°相位差二相脉冲（A 相 +B 相）：125Kpps90° phase difference two-phase pulse (phase A + phase B) : 125Kpps 集电极开路：Open collector: 符合 + 脉冲序列、CW 脉冲 +CCW 脉冲序列：200kpps 90°相位差 Compliance + pulse train, CW pulse +CCW pulse train: 200kpps 90° phase difference 二相脉冲（A 相 +B 相）：125kppsTwo-phase pulse (phase A + phase B) : 125kpps
		清除信号 Clear signal	清除偏差脉冲 Clear deviation pulse 集电极开路 Open collector
	内部设定 Internal setting	位置选择 Position control	使用 DI 信号组合实现第 0-15 段位置选择。The DI signal combination is used to realize the position selection of segment 0-15. （可设定其他端子为此功能）(Other terminals can be set for this function)
	位置控制 Location selection		
速度控制 Speed control	输入信号 Input signal	指令电压 Command voltage	无数据 / 不支持 No data/Not supported
		输入阻抗 Input impedance	无数据 / 不支持 No data/Not supported
	内部设定 Internal setting	软起动时间设定 Soft start time setting	0~10s（可分别设定加速与减速）0~10s (acceleration and deceleration can be set separately)
	速度控制 Speed control	速度选择 Speed selection	使用外部 IO 信号输入选择 Use external IO signal input selection
转矩控制 Torque control	输入信号 Input signal	指令电压 Command voltage	无数据 No data
		输入阻抗 Input impedance	无数据 No data
	内部设定 转矩控制 Internal setting Torque selection	转矩选择 Torque control	使用外部 IO 信号输入选择 Use external IO signal input selection
环境规格 Environmental specification		保护功能 Protection function	包括但不限于：低 / 过电压、过电流、驱动和电动机过热 Including but not limited to: low/overvoltage, overcurrent, drive and motor overheating
		合规 compliance	CE 指令：EN61800-3,EN61800-5-1 CE Directive: EN61800-3,EN61800-5-1
		环境 environment	工作温度 0-45° C 不降额，45-55° C 降额 Operating temperature 0-45° C not derated, 45-55° C derated 存储温度 -20 ~ 65° Storage temperature -20 to 65° 湿度：10 - 90%（无凝露）Humidity: 10-90% (no condensation) 高度：按照 IEC 61800-5-1 标准规定间距要求，使用高度为海拔 1000 米以下。 Height: According to IEC 61800-5-1 standard spacing requirements, the use of the height of 1000 meters above sea level. 振动：5.88m/s2，10Hz-60HzVibration: 5.88m/s2, 10Hz-60Hz
		工作条件 Working condition	防护等级：IP20Protection level: IP20 污染等级：IEC 60664-1 标准 2 级 Pollution level: IEC 60664-1 standard Level 2 请勿在下列地点使用：腐蚀性或易燃气体、水油或化学品、粉尘（包括铁粉）和盐 Do not use in the following places: corrosive or flammable gases, water oil or chemicals, dust (including iron powder) and salt

典型行业应用

DS3E TECHNICAL SPECIFICATIONS

纺织行业

采用优化设计偏心连杆机构，电子多段多速送经和电子牵挂，利用贾卡提花，形成筒形及全成形织物等等

The optimized design of eccentric linkage mechanism, electronic multi-stage multi-speed warp feeding and electronic attaching, the use of jaca jacquard, the formation of cylindrical and fully formed fabrics, etc

核心工位 Core station

轴位：电子送经轴，罗拉轴，横移轴等 6-10 轴完成编织织物

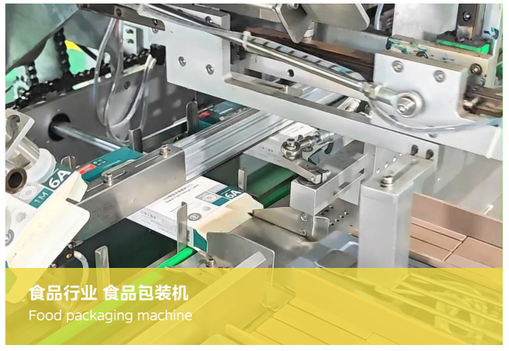
Axis position: electronic beam feed shaft, roller shaft, transverse axis and other 6-10 axes to complete the woven fabric

性能表现 Performance

1. 驱动器支持电源直流 310V 输入，驱动有断电瞬间延时功能（共母线）
2. 现场环境温度高，电机长时间一个方向运行，电机温升低和编码器抗油污高
3. 纱线张力控制高
4. 品质稳定，高可靠性

1. The driver supports power supply DC 310V input, and the driver has the function of instantaneous delay after power failure (common bus).
2. The site ambient temperature is high, the electric length runs in one direction for a long time, the motor temperature rise is low, and the encoder has high oil resistance
3. Yarn tension control high
4. Stable quality and high reliability

食品行业



包装机就是把产品包装起来的一类机器，起到保护，美观的作用；主要机型：枕式包装，立式包装，中包机，给袋式包装

Packaging machine is a kind of machine that packs the product, plays a protective and beautiful role; Main models: pillow packing, vertical packing, medium packing machine, bag packing

核心工位 Core station

轴位：切刀轴，送摸轴，送料轴等完成食品等包装热封

Axis position: cutter shaft, feeding shaft, feeding shaft, etc., to complete the hot sealing of food packaging

性能表现 Performance

1. 高响应，高精度
2. 电机一体灌封工艺，性能强，过载能力强
3. 品质稳定，高可靠性

1. High response, high precision
2. Motor integrated potting process, strong performance, strong overload capacity
3. Stable quality and high reliability

木工行业

开料机作为木工生产线的核心设备，开料机将自动上料、板材切割、雕刻、钻铣、自动下料等工序结合于一体，工序无间断，流畅、高效、实现效率产出最大化。

As the core equipment of woodworking production line, the cutting machine will automatically feed, plate cutting, engraving, drilling and milling, automatic cutting and other processes in one, the process without interruption, smooth, efficient, to achieve maximum efficiency output.

核心工位 Core station

轴位：X 轴一套、龙门 Y 轴两套、Z 轴一套

Axis position:One set of X axis, two sets of Y axis and one set of Z axis

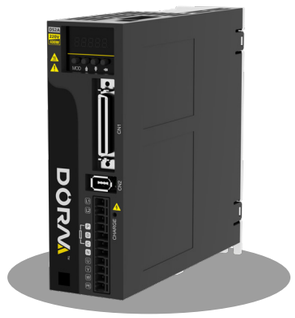
性能表现 Performance

1. 高刚性，高响应，为客户提供上下料、多主轴、排钻包、自动换刀等全套木工开料机功能，实现高速高精度定位、多轴插补轨迹控制等加工要求
2. 电机一体灌封工艺，耐油污等，过载能力 3.5 倍
3. 品质稳定，高可靠性

1. High rigidity, high response, to provide customers with loading and unloading, multi-spindle, drill pack, automatic tool change and other full set of woodworking cutting machine functions, to achieve high-speed and high-precision positioning, multi-axis interpolation trajectory control and other processing requirements
2. Motor integrated filling and sealing process, oil resistance, overload capacity 3.5 times
3. Stable quality and high reliability

DS2A
DS2A

伺服驱动器
Servo driver



转矩 3.5 倍过载
Torque 3.5 times overload

品质稳定
调试简单
Stable quality, simple debugging

功率
power
0.4kW~1.5kW

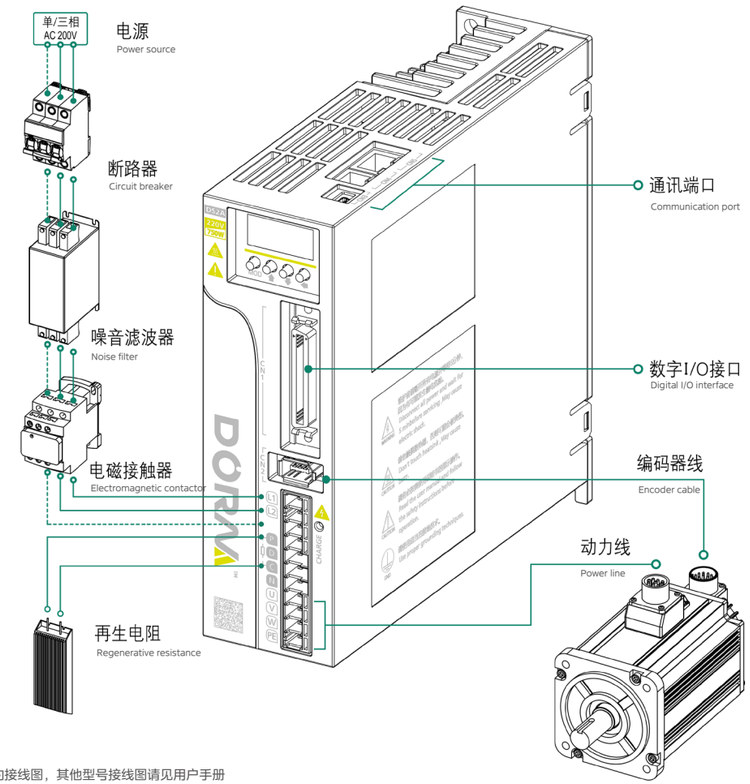
17 位单圈 / 多圈对绝对值编码器
17-bit single-turn/multi-turn pair absolute encoder

可设置 4 级陷波滤波器
4-stage notch filter can be set

缩短定位整定时间
Shorten the positioning setting time

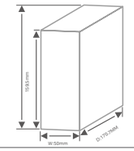
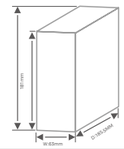
拥有抑制外部扰动功能
It has the function of suppressing external disturbance

接线图
Wiring Diagram



仅为该系列一种型号的接线图，其他型号接线图请见用户手册
The wiring diagram is for only one model of the series. For other models, see the user manual

DS2A 功率规格与尺寸
DS2P model and specifications

型号 Product type	输入电压 (VAC) Input voltage	主电路输入电源 Main circuit input power	连续电流 (Arms) Continuous current	峰值电流 (Arms) Peak current	宽 x 高 x 深 (mm) Width x height x depth
DS2A-04AS	220V	1 phase	2.2	6.6	
DS2A-08AS	220V	1 phase	4.2	12	
DS2A-10AS	220V	1/3 phase	5.2	13	
DS2A-15AS	220V	1/3 phase	8.5	23	

DS2A 通用规格
DS2A TECHNICAL SPECIFICATIONS

特性 peculiarity			DS3E 规格 Product type
控制方式 Control mode			单相或者三相全波整流 IGBT PWM 控制，正弦波电流驱动方式 Single-phase or three-phase full wave rectification IGBT PWM control, sine wave current drive mode
性能 Performance	速度环频率响应 speed loop frequency response		> 1.2kHz
	速度控制范围内 Speed control within range		1:5000（速度控制范围的下限是额定转矩负载时不停止的条件） 1:500 (the lower limit of the speed control range is the condition that the rated torque load does not stop)
	速度波动率 Velocity fluctuation	负载波动 Load fluctuation	0~100% 负载时：±0.01%（额定转速时） 0~100% load: ±0.01% (rated speed)
		电压波动 Voltage fluctuation	额定电压 ±10%：0.001%（额定转速时） Rated voltage ±10% : 0.001% (rated speed)
		温度波动 Temperature fluctuation	25±25℃：±0.1% 以下（额定转速时） 25±25℃ : ±0.1% or less (rated speed)
	转矩控制精度（再现性） Torque control accuracy (reproducibility)		±5%
	软起动时间设定 Soft start time setting		0~10s（可分别设定加速与减速） 0~10s (acceleration and deceleration can be set separately)
输入 输出信号 Input/output signal	编码器分频脉冲输出 Encoder split pulse output		A 相，B 相：差分输出　Z 相：差分输出或集电极开路输出任意分频 Phase A, phase B: differential output Phase Z: differential output or open collector output arbitrary frequency division
	顺控输入信号 Cis control input signal	可分配的输入信号 Assignable input signal	6 点
			伺服接通输入（S-ON）Servo on-input (S-ON) 控制模式切换输入（控制模式切换输入）Control mode switching input (control mode switching input) 正向驱动禁止输入（POT）Forward drive Disable input (POT) 负向驱动禁止输入（NOT）Negative drive disable input (NOT) 偏差计数器清除输入（CLR）Deviation counter clear input (CLR) 报警清楚（A-RST）Alarm Clear (A-RST) 增益切换输入（GAIN）GAIN switching input (GAIN) 指令脉冲禁止输入（INHIBIT）等 Command pulse INHIBIT input (INHIBIT), etc 可进行上述信号的分配以及正 / 负逻辑的变更 The above signals can be assigned and the positive/negative logic can be changed
	顺控输出信号 Cis control output signal	可分配的输出信号 Assignable output signal	4 点
			报警信号（ALM）Alarm Signal (ALM) 定位完成信号（COIN）Positioning complete Signal (COIN) Z 冲集电极信号（CZ）Z-stroke Collector Signal (CZ) 外部制动器解除信号（BK）External Brake Release Signal (BK) 伺服准备好（S-RDY）Servo Ready (S-RDY) 可进行上述信号的分配以及正 / 负逻辑的变更 The above signals can be assigned and the positive/negative logic can be changed
通讯功能 Communication function	485 通讯 485 communication	1：N 通信 1: N communication	使用中继的情况下，最大可为 N=31 站 If a trunk is used, the maximum number of stations can be N=31
		轴地址设定 Axis address setting	通过参数设定 By parameter setting
		连接设备 Connecting device	电脑、上位机 Computer, upper computer
	电脑通讯 Computer communication	通讯接口 Communication interface	RS485
显示按键功能 Display key function			7 段 LED*5 位，4 个按键 7 LED*5 bits, 4 keys
再生处理 Regenerative treatment			外置再生电阻器 External regenerative resistor
超程（OT）防止功能 Overrange (OT) prevention function			POT、NOT 输入动作时减速停止或者自由运行停止 POT, NOT input action to slow down stop or free running stop
保护功能 Protection function			过电流、过电压、欠电压、过载、再生故障 Over current, over voltage, under voltage, over load, regenerative fault

DS2A 通用规格

DS2A TECHNICAL SPECIFICATIONS

特性 peculiarity			DS3E 规格 Product type
位置控制 Position control	前馈补偿 Feedforward compensation		0~100%（设定单位：1%） 0~100% (set unit: 1%)
	定位完成宽度设定 Positioning completes width setting		0~65565 个编码器单位 0~65565 encoder units
	输入信号 Input signal	输入脉冲种类 Input pulse type	
		输入脉冲形态 Input pulse pattern	线性驱动，集电极开路 Linear drive, open collector
		最大输入脉冲频率 Maximum input pulse frequency	线性驱动：Linear drive: 符合 + 脉冲序列、CW 脉冲 +CWW 脉冲序列：500kppsComply with + pulse sequence, CW pulse +CWW pulse sequence: 500kpps 90°相位差二相脉冲（A 相 +B 相）：125Kpps90° phase difference two-phase pulse (phase A + phase B) : 125Kpps 集电极开路：Open collector: 符合 + 脉冲序列、CW 脉冲 +CCW 脉冲序列：200kpps 90°相位差 Compliance + pulse train, CW pulse +CCW pulse train: 200kpps 90° phase difference 二相脉冲（A 相 +B 相）：125kppsTwo-phase pulse (phase A + phase B) : 125kpps
		清除信号 Clear signal	清除偏差脉冲 Clear deviation pulse
			集电极开路 Open collector
	内部设定 Internal setting	位置选择 Position control	使用 DI 信号组合实现第 0-15 段位置选择。The DI signal combination is used to realize the position selection of segment 0-15.
	位置控制 Location selection		（可设定其他端子为此功能）(Other terminals can be set for this function)
速度控制 Speed control	输入信号 Input signal	指令电压 Command voltage	无数据 / 不支持 No data/Not supported
		输入阻抗 Input impedance	无数据 / 不支持 No data/Not supported
	内部设定 Internal setting	软起动时间设定 Soft start time setting	0~10s（可分别设定加速与减速）0~10s (acceleration and deceleration can be set separately)
	速度控制 Speed control	速度选择 Speed selection	使用外部 IO 信号输入选择 Use external IO signal input selection
转矩控制 Torque control	输入信号 Input signal	指令电压 Command voltage	无数据 No data
		输入阻抗 Input impedance	无数据 No data
	内部设定 Internal setting	转矩选择 Torque control	使用外部 IO 信号输入选择 Use external IO signal input selection
	转矩控制 Torque selection		
环境规格 Environmental specification		保护功能 Protection function	包括但不限于：低 / 过电压、过电流、驱动和电动机过热 Including but not limited to: low/overvoltage, overcurrent, drive and motor overheating
		合规 compliance	CE 指令：EN61800-3,EN61800-5-1 CE Directive: EN61800-3,EN61800-5-1
		环境 environment	工作温度 0-45° C 不降额，45-55° C 降额 Operating temperature 0-45° C not derated, 45-55° C derated 存储温度 -20 ~ 65° Storage temperature -20 to 65° 湿度：10 - 90%（无凝露）Humidity: 10-90% (no condensation) 高度：按照 IEC 61800-5-1 标准规定间距要求，使用高度为海拔 1000 米以下。 Height: According to IEC 61800-5-1 standard spacing requirements, the use of the height of 1000 meters above sea level. 振动：5.88m/s2，10Hz-60HzVibration: 5.88m/s2, 10Hz-60Hz
		工作条件 Working condition	防护等级：IP20Protection level: IP20 污染等级：IEC 60664-1 标准 2 级 Pollution level: IEC 60664-1 standard Level 2 请勿在下列地点使用：腐蚀性或易燃气体、水油或化学品、粉尘（包括铁粉）和盐 Do not use in the following places: corrosive or flammable gases, water oil or chemicals, dust (including iron powder) and salt

典型行业应用

DS3E TECHNICAL SPECIFICATIONS

食品行业

食品摆盘机的主要功能包括快速摆放、智能化管理、节省人力成本和高精度定位

The main functions of food platter include quick placement, intelligent management, labor cost saving and high-precision positioning

核心工位 Core station

轴位：送料轴，推盘轴等完成食品自动摆盘

Axis position: feed shaft, push plate shaft and so on to complete the automatic food plate

性能表现 Performance

1. 高响应，高精度，速度达到 4500R
2. 电机一体灌封工艺，性能强，过载能力强
3. 品质稳定，高可靠性

1. High response, high precision, speed up to 4500R
2. Motor integrated potting process, strong performance, strong overload capacity
3. Stable quality and high reliability

木工行业

侧孔机是一种常用的木工工具，用于在木材表面开槽或打孔

A side hole machine is a common woodworking tool used to slot or punch holes in wood surfaces

核心工位 Core station

轴位：横移轴，上下轴，钻孔进给轴等跟随木材开槽或打孔等多工艺功能

Axis position: transverse axis, upper and lower axis, drilling feed axis, etc. follow wood slotting or drilling and other process functions

性能表现 Performance

1. 高响应，高转速应用
2. 电机一体灌封工艺，防护高
3. 品质稳定，高可靠性

1. High response, high speed application
2. Motor integrated potting process, high protection
3. Stable quality and high reliability

机器人行业

注塑机械手是为注塑生产自动化专门配备的机械，它可以在减轻繁重的体力劳动、改善劳动条件和安全生产

Injection molding manipulator is a machine specially equipped for the automation of injection molding production, which can reduce heavy manual labor, improve working conditions and safe production

核心工位 Core station

轴位：X 轴，Y 轴，Z 轴等 3-5 轴完成从注塑机中自动取料

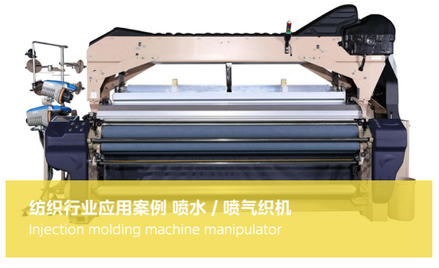
X axis, Y axis, Z axis 3-5 axis to complete the automatic material from the injection molding machine

性能表现 Performance

1. 高响应，高精度，速度达到 4500R-5000R
2. 电机一体灌封工艺，性能强，过载能力强
3. 品质稳定，高可靠性

1. High response, high precision, speed up to 4500R-5000R
2. Motor integrated potting process, strong performance, strong overload capacity
3. Stable quality and high reliability

纺织行业



通过高压水流 / 高压气体将纬线推向经线，从而完成织布的过程

The process of weaving is completed by pushing the weft line towards the warp line through high pressure water flow/high pressure gas

核心工位 Core station

轴位：电子送经，电子卷取

Axis position: electronic let-off, electronic take-up

性能表现 Performance

1. 现场环境温度高，潮湿等温度等要求，驱动器三防漆防护高
2. 电机一体灌封工艺，耐油污等
3. 品质稳定，高可靠性

1. High ambient temperature, humidity and other temperature requirements, drive three anti-paint protection is high
2. Motor integrated filling sealing process, oil resistance, etc
3. Stable quality and high reliability

DM2 系列电机命名规则

DM2 naming rules

DM	2	M	04	A	60	#	I	8	S	**
1	2	3	4	5	6	7	8	9	10	11

DM 1 系列号 Serial number

标识字母 Identifying letter	含义 Meaning
DM	DM 系列 DM Series

2 2 版本号 Version number

符号 symbol	含义 Meaning
2	第二代 Second generation

M 3 惯量类型 Inertia type

符号 symbol	规格 specification
S	小惯量 Small inertia
M	中惯量 Medium inertia

04 4 额定输出功率 Rated output power

符号 symbol	含义 Meaning
01	100W
02	200W
04	400W
08	750W
09	850W
10	1.0kW
13	1.3kW
15	1.5kW
18	1.8kW

A 4 输入电源电压 Input supply voltage

符号 symbol	含义 Meaning
A	220VAC

60 6 机座号 Engine seat number

符号 symbol	规格 specification
40	□ 40 机座
60	□ 60 机座
80	□ 80 机座
100	□ 100 机座
110	□ 110 机座
130	□ 130 机座

7 电磁方案 Electromagnetic Solutions

符号 symbol	规格 specification
空	默认电磁 Default electromagnetic
A	电磁版本 A Electromagnetic Version A
B	电磁版本 B Electromagnetic Version B

8 8 编码器类型 Encoder type

符号 symbol	含义 Meaning
I	17 位单圈绝对值编码器（磁） 17-bit single-turn absolute encoder (magnetic)
J	17 位多圈绝对值编码器（磁） 17-bit multi-turn absolute encoder (magnetic)

8 9 轴端规格 Shaft end specification

符号 symbol	规格 specification
8	直轴带键带螺孔 Straight shaft with key with screw hole

S 10 选配件 Select accessories

符号 symbol	规格 specification
1	无选购件（不带油封不带制动器） No options (no oil seal, no brake)
B	带制动器 Band brake
S	带油封 With oil seal
E	带油封、带制动器 With oil seal, with brake

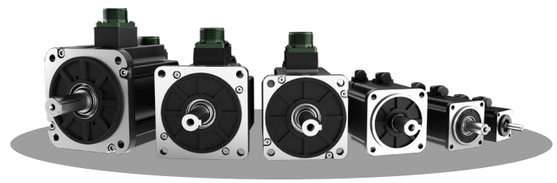
** 11 特殊规格 Special specification

符号 symbol	规格 specification
无	标准款 Standard style
-**	客户定制型，不同代码代表不同定制方案，详见规格书 Customized, different codes represent different customization schemes, see the specification for details

仅用于对产品型号做解释说明，不代表所有字符组合都存在相应产品
It is only used to explain the product model and does not mean that all character combinations have corresponding products

DM2 系列经济型通用伺服电机

DM2 series economical general purpose servo motor



功率
0.1kW~1.5kW 0.85~3.0kW
220V 380V

包含小惯量、中惯量品类机型
Includes small inertia, medium inertia category models

IP65 外壳防护等级
IP65 enclosure protection rating

标配 17bit 多圈磁编
单圈和多圈两个版本
Standard 20bit multi-turn magnetic knittingMagnetic knitting can realize on-line monitoring of motor temperature

6000rpm
最高转速

3.5 倍
最高过载能力
Maximum speed 7000RPM, maximum overload capacity 3.77 times

550W 以上机型符合国家 1 级能效标准
Models above 550W meet the national Level 1 energy efficiency standards

符合 CE 认证
Comply with CE certification standards

选型配置

Selection and configuration

电压等级（VAC）Voltage level	机座号 Engine seat number	惯量等级 Class of inertia	额定功率（W）Rated power	转速（额定 / 最高）Rotational speed (Rated/Max.)	电流规格（额定 / 最高）Current specification (Rated/Max.)	惯量值（无制动 / 带制动）Value of inertia (No brake/with brake	油封 Oil seal	制动器 brake	17bit 磁编 单圈绝对值 17bit magnetic knitting Absolute value of a turn	17bit 磁编 多圈绝对值 17bit magnetic knitting Multiturn absolute value	标配 DS2 驱动器 DS2 driver as standard	标配 DS3 驱动器 DS3 driver as standard
220	40	小惯量	100	3000/6000	1.0/3.8	0.041/0.043	×	√	DM2S-01A40I8B	DM2S-01A40J8B	DS2P-01AS	DS3E-1D62AEB
							×	×	DM2S-01A40I81	DM2S-01A40J81		
							√	√	DM2S-01A40I8E	DM2S-01A40J8E		
							√	×	DM2S-01A40I8S	DM2S-01A40J8S		
	60	中惯量	200	3000/6000	1.5/5.8	0.23/0.236	√	√	DM2M-02A60I8E	DM2M-02A60J8E	DS2P-02AS	DS3E-1D62AEB
							√	×	DM2M-02A60I8S	DM2M-02A60J8S		
			400	3000/6000	2.5/9.8	0.401/0.403	√	√	DM2M-04A60I8E	DM2M-04A60J8E	DS2P-04AS	DS3E-2D82AEB
							√	×	DM2M-04A60I8S	DM2M-04A60J8S		
	80	中惯量	750	3000/6000	4.44/16.8	1.31/1.44	√	√	DM2M-08A80I8E	DM2M-08A80J8E	DS2P-08AS	DS3E-5D52AEB
							√	×	DM2M-08A80I8S	DM2M-08A80J8S		
	100	小惯量	1000	3000/6000	7.5/23.4	2.18/2.78	√	√	DM2S-10A100I8E	DM2S-10A100J8E	DS2P-10AS	DS3E-7D62AEB（开发中）
							√	×	DM2S-10A100I8S	DM2S-10A100J8S		
			1500	3000/6000	9.8/30	3.14/3.74	√	√	DM2S-15A100I8E	DM2S-15A100J8E	DS2P-15AS	DS3E-0122AEB（开发中）
							√	×	DM2S-15A100I8S	DM2S-15A100J8S		
	110	小惯量	1000	3000/6000	7.5/23.4	2.18/2.78	√	√	DM2S-10A110I8E	DM2S-10A110J8E	DS2P-10AS	DS3E-7D62AEB（开发中）
							√	×	DM2S-10A110I8S	DM2S-10A110J8S		
			1500	3000/6000	9.8/30	3.14/3.74	√	√	DM2S-15A110I8E	DM2S-15A110J8E	DS2P-15AS	DS3E-0122AEB（开发中）
							√	×	DM2S-15A110I8S	DM2S-15A110J8S		
	130	中惯量	850	1500/3000	6.4/16.9	13.8/14.39	√	√	DM2M-09A130I8E	DM2M-09A130J8E	DS2P-10AS	DS3E-7D62AEB（开发中）
							√	×	DM2M-09A130I8S	DM2M-09A130J8S		
			1300	1500/3000	10.2/25.5	19.9/20.53	√	√	DM2M-13A130I8E	DM2M-13A130J8E	DS2P-15AS	DS3E-0122AEB（开发中）
							√	×	DM2M-13A130I8S	DM2M-13A130J8S		
380	100	小惯量	1000	3000/6000	3.1/10.6	2.18/2.78	√	√	DM2S-10B100I8E	DM2S-10B100J8E	-	DS3E-3D54DEB
							√	×	DM2S-10B100I8S	DM2S-10B100J8S		
			1500	3000/6000	4.1/12.6	3.14/3.74	√	√	DM2S-15B100I8E	DM2S-15B100J8E	-	DS3E-5D44DEB
							√	×	DM2S-15B100I8S	DM2S-15B100J8S		
			2000	3000/6000	6/19.0	3.14/3.74	√	√	DM2S-20B100I8E	DM2S-20B100J8E	-	DS3E-8D44DEB
							√	×	DM2S-20B100I8S	DM2S-20B100J8S		
			2500	3000/6000	7.4/22.4	4.48/5.13	√	√	DM2S-25B100I8E	DM2S-25B100J8E	-	DS3E-0124DEB
							√	×	DM2S-25B100I8S	DM2S-25B100J8S		
	110	小惯量	1000	3000/6000	3.1/10.6	2.18/2.78	√	√	DM2S-10B110I8E	DM2S-10B110J8E	-	DS3E-3D54DEB
							√	×	DM2S-10B110I8S	DM2S-10B110J8S		
			1500	3000/6000	4.1/12.6	3.14/3.74	√	√	DM2S-15B110I8E	DM2S-15B110J8E	-	DS3E-5D44DEB
							√	×	DM2S-15B110I8S	DM2S-15B110J8S		
			2000	3000/6000	6/19.0	3.14/3.74	√	√	DM2S-20B110I8E	DM2S-20B110J8E	-	DS3E-8D44DEB
							√	×	DM2S-20B110I8S	DM2S-20B110J8S		
			2500	3000/6000	7.4/22.4	4.48/5.13	√	√	DM2S-25B110I8E	DM2S-25B110J8E	-	DS3E-0124DEB
							√	×	DM2S-25B110I8S	DM2S-25B110J8S		
	130	中惯量	850	1500/3000	3.4/8.5	13.8/14.39	√	√	DM2M-09B130I8E	DM2M-09B130J8E	-	DS3E-3D54DEB
							√	×	DM2M-09B130I8S	DM2M-09B130J8S		
			1300	1500/3000	5.1/16	19.9/20.53	√	√	DM2M-13B130I8E	DM2M-13B130J8E	-	DS3E-5D44DEB
							√	×	DM2M-13B130I8S	DM2M-13B130J8S		
			1800	1500/3000	8/25.0	25/25.28	√	√	DM2M-18B130I8E	DM2M-18B130J8E	-	DS3E-8D44DEB
							√	×	DM2M-18B130I8S	DM2M-18B130J8S		
		小惯量	3000	3000/5000	9.4/29.7	9.6/11.5	√	√	DM2S-30B130I8E	DM2S-30B130J8E	-	DS3E-0124DEB
							√	×	DM2S-30B130I8S	DM2S-30B130J8S		

DM2A 系列电机命名规则

DM2A naming rules

DM	2	A	-	04	A	60	I	8	S	-	**
1	2	3	4	5	6	7	8	9	10	11	12

DM 1 系列号 Serial number

符号 symbol	含义 Meaning
DM	DM：Dorna Motor

2 2 版本号 Version number

符号 symbol	含义 Meaning
2	第二代 Second generation

A 3 性能类别 Performance class

符号 symbol	规格 specification
A	轻载型旋转伺服电机 Light load rotary servo motor

4 连接符 Connectors

04 5 额定功率 Rated power

符号 symbol	含义 Meaning
04	0.4kW
08	0.75kW
09	0.85kW
13	1.3kW

A 6 额定供电 Rated power supply

符号 symbol	含义 Meaning
A	220V

60 7 机座号 Engine seat number

符号 symbol	规格 specification
60	□ 60 机座
80	□ 80 机座
130	□ 130 机座

I 8 编码器类型 Encoder type

符号 symbol	含义 Meaning
I	经济款 17bit 单圈磁编码器 Economical 17bit single-turn magnetic encoder
J	经济款 17bit 多圈磁编码器 Economical 17bit multi-turn magnetic encoder

8 9 轴类型 Shaft type

符号 symbol	规格 specification
8	带键轴 Keyed shaft

S 10 制动器 / 油封配置 Brake/oil seal configuration

符号 symbol	规格 specification
S	带油封 无制动器、（Seal） With oil seal
E	带油封 带制动器（Either） With oil seal, with brake

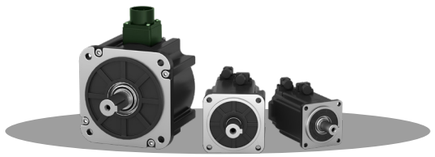
11 连接符 Connectors

★★ 12 定制代码 Custom code

符号 symbol	规格 specification
无	标准品（标准结构、标准键、标准轴）Standard product (standard structure, standard key, standard axis)
-**	其它：详见定制产品规格书 Others: See Custom product specifications

DM2A 系列轻载型伺服电机

DM2A series light load type simultaneous motor



重复定位精度 50 角秒精度高、鲁棒性能强

Repeat positioning accuracy 50 arcseconds
High precision, robust performance

IP65 外壳防护等级

IP65 enclosure protection rating

标配 17bit 多圈磁编单圈和多圈两个版本

Standard 20bit multi-turn magnetic knittingMagnetic knitting can realize on-line monitoring of motor temperature

□ 60/80 机座产品

4500rpm 最高转速 **2.5 倍** 最高过载能力

Maximum speed 4500RPM, maximum overload capacity 2.5 times

□ 130 机座产品

3000rpm 最高转速 **2.0 倍** 最高过载能力

Maximum speed 3000RPM, maximum overload capacity 2.0 times

1 1级
2
3

550W 以上机型符合国家 1 级能效标准

Models above 550W meet the national Level 1 energy efficiency standards

选型配置

Selection and configuration

电压等级 (VAC) Voltage level	机座号 Engine seat number	惯量等级 Class of inertia	额定功率 (W) Rated power	转矩值 N · m (额定 / 峰值) Torque value N · m (Rated/peak)	转速 (额定 / 最高) Rotational speed (Rated/Max.)	电流规格 (额定 / 最高) Current specification (Rated/Max.)	惯量值 (无制动 / 带制动) Value of inertia (No brake/with brake)	编码器类型 Encoder type	带制动器 带油封 With brake with oil seal	无制动器 带油封 No brake with oil seal	标配驱动器 Standard configuration driver
220	60	中惯量	400	1.27/3.18	3000/4500	2.3/6.2	0.34/0.35	17bit 磁编 单圈绝对值 17bit absolute value of a single turn of magnetic braids	DM2A-04A60I8E	DM2A-04A60I8S	DS2A-04AS
								17bit 磁编 多圈绝对值 17bit magnetic braids absolute value of multiple turns	DM2A-04A60J8E	DM2A-04A60J8S	DS2A-04AS
	80	中惯量	750	2.39/5.97	3000/4500	3.9/11.2	1.03/1.08	17bit 磁编 单圈绝对值 17bit absolute value of a single turn of magnetic braids	DM2A-08A80I8E	DM2A-08A80I8S	DS2A-08AS
								17bit 磁编 多圈绝对值 17bit magnetic braids absolute value of multiple turns	DM2A-08A80J8E	DM2A-08A80J8S	DS2A-08AS
	130	中惯量	0.85	5.39/10.78	1500/3000	5.08/13	9.3/11.6	17bit 磁编 单圈绝对值 17bit absolute value of a single turn of magnetic braids	DM2A-09A130I8E	DM2A-09A130I8S	DS2A-10AS
								17bit 磁编 多圈绝对值 17bit magnetic braids absolute value of multiple turns	DM2A-09A130J8E	DM2A-09A130J8S	DS2A-10AS
			1.3	8.34/16.68	1500/3000	7.76/23.1	14.36/16.66	17bit 磁编 单圈绝对值 17bit absolute value of a single turn of magnetic braids	DM2A-13A130I8E	DM2A-13A130I8S	DS2A-15AS
								17bit 磁编 多圈绝对值 17bit magnetic braids absolute value of multiple turns	DM2A-13A130J8E	DM2A-13A130J8S	DS2A-15AS

东菱线缆 & 端子

Cables & terminals

B1 系列

B1 Series

功率 power	机座号 Engine seat number	编码线（5000 线省线） Code line (5000 lines)	防水编码线（5000 线省线） Waterproof coding line (5000 line provincial line)	编码线（17bit 增量、20bit） Code line (17bit increments, 20bit)	防水编码线（17bit 增量、20bit） Waterproof coding cable (17bit increments, 20bit)	编码线（17bit 绝对值） Code line (17bit absolute value)	动力线 Power line	防水动力线 Waterproof power line	防水抱闸动力线 Waterproof holding brake power line	抱闸线 Brake cable	控制线（线、头不焊接） Control wire (wire, head not welded)
0.1KW — 0.75KW	60 系列 60 series	BA-031 (BE-031)	(BM-017)	BA-030(BE-030)	BJ-030	BB-030(BF-030)	DA-024 (DF-024)	DK-035（DI-035）	(DL-035)	BG-014	KE-007
	80 系列 80 series										
	90 系列 90 series										
0.8KW — 1.0KW	80 系列 80 series	BA-031 (BE-031)	(BM-017)	BA-030 (BE-030)	BJ-030	BB-030 (BF-030)	DE-024			BG-014	
	110 系列 110 series	BB-031 (BF-031)	BC-030 (BK-030)		BD-030 (BH-030)		DB-024			BC-014	
	130 系列 130 series										
1.0KW-1.5KW	110 系列 110 series						DC-024				
	130 系列 130 series										
2.1KW-3KW	110 系列 110 series						DE-002				
	130 系列 130 series										
3.1KW-4.5KW	110 系列 110 series						DF-002				
	130 系列 130 series										
1.0-1.5KW(B 型机箱 尾椎 A000)（Type B Chassis tail vertebrae A000)	110/130 系列 110/130 series						DB-024				
2.1KW-3.0KW	130/180 系列 130/180series						DD-002				
3.1KW-4.5KW	130/180 系列 130/180series						DE-002				
4.5KW-7.5KW	130/180 系列 130/180series						DF-002				
	200 系列 200 series	BN-031					DM-002				
	220 系列 220 series						DI-002				
11KW-15KW	200 系列 200 series						DK-002				
	220 系列 220 series						DJ-002				
22KW	200 系列 200 series						DN-002				

（ ）内为运动型线号（柔性线、拖链线） ( ) Inside is the sport line number (flexible line, drag chain line)

B2、M1、BS 系列 220V

B2、M1、BS Series 220V

功率 power	机座号 Engine seat number	编码线（5000 线省线） Code line (5000 lines)	防水编码线（5000 线省线） Waterproof coding line (5000 line provincial line)	编码线（17bit 增量、20bit） Code line (17bit increments, 20bit)	防水编码线（17bit 增量、20bit） Waterproof coding cable (17bit increments, 20bit)	编码线（17bit 绝对值） Code line (17bit absolute value)	防水编码线（17bit 增量、20bit） Waterproof coding cable (17bit increments, 20bit)	动力线 Power line	防水动力线 Waterproof power line	防水抱闸动力线 Waterproof holding brake power line	抱闸线 Brake cable	控制线（线、头）不焊 Control wire (wire, head not welded)
0.2KW-0.75KW	40 系列 40 series	BD-031 (BH-031)	BP-031 (BR-031)	BD-031 (BH-031)	BP-031 (BR-031)	BG-030 (BM-030)	(BR-030)	DA-002 (DB-020)	DF-035 (DR-035)	DG-035	BG-014	KJ-007
	60 系列 60 series											
	80 系列 80 series											
	90 系列 90 series											
0.8KW-1.0KW	80 系列 80 series	BD-031 (BH-031)	BP-031 (BR-031)	BD-031 (BH-031)	BP-031(BR-031)	BG-030 (BM-030)	(BR-030)	DA-002 (DB-020)				
	110-180 系列 110-180 series	BC-031 (BG-031)		BC-031 (BG-031)		BI-030 (BN-030)		DB-002			BC-014 (BC-014T)	
1.1KW-1.5KW	110-180 系列 110-180 series							DC-002 (DV-002)				
1.6KW-2.2KW	110-180 系列 110-180 series							DD-002				
2.3KW-3.0KW	110-180 系列 110-180 series							DE-002				

EB 系列 220V

EB Series 220V

机座号 Engine seat number	编码线（2500 线省线） Code line (2500 lines)	编码线（5000 线省线） coding line (5000 line provincial line)	防水编码线（5000 线省线）Waterproof coding line (5000 line provincial line)	编码器线（1024 磁性编码器） Encoder cable (1024 magnetic encoder)	动力线 Power line	防水动力线 Waterproof power line	防水抱闸动力线 Waterproof holding brake power line	抱闸线 Brake cable	控制线（线、头不焊接） Control wire (wire, head not welded)
40 系列 40 series	BA-017	无		无	DD-035	DF-035 (DR-035)	DG-035	BG-014	KJ-007
60 系列 60 series	BD-002 (BB-027)	BA-017 (BG-017)	BN-017 (BL-017)	BA-017 (BG-017)	DA-002 (DB-020)				
80 系列 80 series									
90 系列 90 series									
110 系列 110 series	BC-002 (BG-027)	BD-017 (BH-017)		BD-017 (BH-017)	DB-002(0.8 ~ 1.0KW) DC-002（1.1 ~ 1.5KW） DD-002（1.6 ~ 2.0KW） DE-002（2.1 ~ 3.0KW）			BC-014	
130 系列 130 series									

DS2 系列 220V

DS2 Series 220V

DS2P+DM1

机座号 Engine seat number	编码线（17 位磁编） Code line (17bit increments)	编码线（绝对值带电池）Code line (absolute value with battery)	防水编码线（17 位磁编） Waterproof coding cable (17bit increments)	动力线 Power line	防水动力线 Waterproof power line	抱闸动力线 holding brake power line	防水抱闸动力线 Waterproof holding brake power line	控制线（线、头不焊接） Control wire (wire, head not welded)
40 系列 40 series	BF-040 (BF-040S)	BK-040 (BK-040S)	BA-050 (BA-050S)	DB-050 (DB-050S)	BQ-050	DC-050(DC-050S)	DN-060	KE-007
60 系列 60 series								
80 系列 80 series								
130 系列 130 series	BT-040 (BT-040S)	BS-040 (BS-040S)		DS-060 (DS-060S)		DT-060(DT-060S)		

DS2P+DM2

伺服电机规格 Servo motor specification	伺服驱动器规格 Servo driver specification	单圈编码器延长线（无电池）Single turn encoder extension cable (no battery)		多圈编码器延长线（带电池）Multiturn encoder extension cable (with battery)		控制线（线、头不焊接）Control wire (wire, head not welded)
		编码器线套件包 Encoder cable kit package	编码器线 Code line	编码器线套件包 Encoder cable kit package	编码器线 Code line	
100/110/130 机座 DM2 系列伺服电机 100/110/130 stand DM2 series servo motor	DS2P 系列伺服驱动器 DS2P series servo drivers	CAP-FBPH2S301A0	CBL-FBPH2#S301A0xx	CAP-FBPH2T201A017419450001464	CBL-FBPH2#T201A0xx	KE-007
40/60/80 机座 DM2 系列伺服电机 40/60/80 stand DM2 series servo motor	DS2P 系列伺服驱动器 DS2P series servo drivers	BF-040TJ17419400000147	BF-040	BK-040TJ17419400000399	BK-040	

伺服电机规格 Servo motor specification	伺服驱动器规格 Servo driver specification	动力线延长线（无制动器）Power line extension (no brake)		动力线延长线（带制动器）Power line extension (with brake)		控制线（线、头不焊接）Control wire (wire, head not welded)
		动力线套件包 Power line kit package	动力线接线定义 Power wire wiring definition	动力线套件包 Power line kit package	动力线接线定义 Power wire wiring definition	
100/110/130 机座 DM2 系列伺服电机 100/110/130 stand DM2 series servo motor	DS2P 系列伺服驱动器 DS2P series servo drivers	CAP-PWPH20000A0	DE-081	CAP-PWPH20001A017419410001481	DF-081	KE-007
40/60/80 机座 DM2 系列伺服电机 40/60/80 stand DM2 series servo motor	DS2P 系列伺服驱动器 DS2P series servo drivers	DB-050TJ17419400000477	DB-050	DC-050TJ17419400000317	DC-050	

DS3E+DM2 动力线或配件包

DS3E+DM2 Power cable or accessory pack

无制动器

Brakeless

电机类型 Motor type	驱动类型 Driver type	动力线延长线 - 无制动器 Power line extension (no brake)			连接器套件包 Connector kit	控制线 Control line	控制器 I/O Controller I/O
		线长 Line length	普通线 Common line	拖链线 Towing line			
DM2 系列 40/60/80 机座 DM2 series 40/60/80 stands	DS3E 系列 DS3E Series	3 米 3meters	CBL-PWDM210000D003	CBL-PWDM220000D003	CAP-PWDM20000D0	无 / 网线控制 None/Network cable control	C4 端子 C4 terminal/HPPCS02CNS-20SBK113S1
		5 米 5meters	CBL-PWDM210000D005	CBL-PWDM220000D005			
		10 米 10meters	CBL-PWDM210000D010	CBL-PWDM220000D010			
		15 米 15meters	CBL-PWDM210000D015	CBL-PWDM220000D015			
		20 米 20meters	CBL-PWDM210000D020	CBL-PWDM220000D020			
DM2 系列 100/110/130 机座 DM2 系列 100/110/130 机座	DS3E 系列 DS3E Series	3 米 3meters	CBL-PWPH210000A003	CBL-PWPH220000A003	CAP-PWPH20000A0		
		5 米 5meters	CBL-PWPH210000A005	CBL-PWPH220000A005			
		10 米 10meters	CBL-PWPH210000A010	CBL-PWPH220000A010			
		15 米 15meters	CBL-PWPH210000A015	CBL-PWPH220000A015			
		20 米 20meters	CBL-PWPH210000A020	CBL-PWPH220000A020			

带制动器
Band brake

电机类型 Motor type	驱动类型 Driver type	动力线延长线 - 无制动器 Power line extension (no brake)			连接器套件包 Connector kit	控制线 Control line	控制器 I/O Controller I/O
		线长 Line length	普通线 Common line	拖链线 Towing line			
DM2 系列 40/60/80 机座 DM2 series 40/60/80 stands	DS3E 系列 DS3E Series	3 米 3meters	CBL-PWDM210001D003	CBL-PWDM220001D003	CAP-PWDM20001D0	无 / 网线控制 None/Network cable control	C4 端子 C4 terminal/ HPPCS02CNS-20SBK113S1
		5 米 5meters	CBL-PWDM210001D005	CBL-PWDM220001D005			
		10 米 10meters	CBL-PWDM210001D010	CBL-PWDM220001D010			
		15 米 15meters	CBL-PWDM210001D015	CBL-PWDM220001D015			
		20 米 20meters	CBL-PWDM210001D020	CBL-PWDM220001D020			
DM2 系列 100/110/130 机座 DM2 系列 100/110/130 机座	DS3E 系列 DS3E Series	3 米 3meters	CBL-PWPH210001A003	CBL-PWPH220001A003	CAP-PWPH20001A0		
		5 米 5meters	CBL-PWPH210001A005	CBL-PWPH220001A005			
		10 米 10meters	CBL-PWPH210001A010	CBL-PWPH220001A010			
		15 米 15meters	CBL-PWPH210001A015	CBL-PWPH220001A015			
		20 米 20meters	CBL-PWPH210001A020	CBL-PWPH220001A020			

编码器线或配件包
Encoder cable or accessory pack

单圈磁编版
Single-turn magnetic editing

电机类型 Motor type	驱动类型 Driver type	编码器线延长线 - 单圈磁编版（无电池）Encoder Cable Extension cable - Single turn magnetic editing (battery-free)			连接器套件包 Connector kit	控制线 Control line	控制器 I/O Controller I/O
		线长 Line length	普通线 Common line	拖链线 Towing line			
DM2 系列 40/60/80 机座 DM2 series 40/60/80 stands	DS3E 系列 DS3E Series	3 米 3meters	CBL-FBDM21S301D003	CBL-FBDM22S301D003	CAP-FBDM2S301D0	无 / 网线控制 None/Network cable control	C4 端子 C4 terminal/ HPPCS02CNS-20SBK113S1
		5 米 5meters	CBL-FBDM21S301D005	CBL-FBDM22S301D005			
		10 米 10meters	CBL-FBDM21S301D010	CBL-FBDM22S301D010			
		15 米 15meters	CBL-FBDM21S301D015	CBL-FBDM22S301D015			
		20 米 20meters	CBL-FBDM21S301D020	CBL-FBDM22S301D020			
DM2 系列 100/110/130 机座 DM2 系列 100/110/130 机座	DS3E 系列 DS3E Series	3 米 3meters	CBL-FBPH21S301A003	CBL-FBPH22S301A003	CAP-PWPH2S301A0		
		5 米 5meters	CBL-FBPH21S301A005	CBL-FBPH22S301A005			
		10 米 10meters	CBL-FBPH21S301A010	CBL-FBPH22S301A010			
		15 米 15meters	CBL-FBPH21S301A015	CBL-FBPH22S301A015			
		20 米 20meters	CBL-FBPH21S301A020	CBL-FBPH22S301A020			

多圈磁编版
Multiturn magnetic editing

电机类型 Motor type	驱动类型 Driver type	编码器线延长线 - 多圈磁编版（带电池）Encoder Cable Extension cable - Multi-turn magnetic editing (with battery)			连接器套件包 Connector kit	控制线 Control line	控制器 I/O Controller I/O
		线长 Line length	普通线 Common line	拖链线 Towing line			
DM2 系列 40/60/80 机座 DM2 series 40/60/80 stands	DS3E 系列 DS3E Series	3 米 3meters	CBL-FBDM21T203D003	CBL-FBDM22T203D003	CAP-FBDM2T203D0	无 / 网线控制 None/Network cable control	C4 端子 C4 terminal/ HPPCS02CNS-20SBK113S1
		5 米 5meters	CBL-FBDM21T203D005	CBL-FBDM22T203D005			
		10 米 10meters	CBL-FBDM21T203D010	CBL-FBDM22T203D010			
		15 米 15meters	CBL-FBDM21T203D015	CBL-FBDM22T203D015			
		20 米 20meters	CBL-FBDM21T203D020	CBL-FBDM22T203D020			
DM2 系列 100/110/130 机座 DM2 系列 100/110/130 机座	DS3E 系列 DS3E Series	3 米 3meters	CBL-FBPH21T203A003	CBL-FBPH22T203A003	CAP-FBPH2T203A0		
		5 米 5meters	CBL-FBPH21T203A005	CBL-FBPH22T203A005			
		10 米 10meters	CBL-FBPH21T203A010	CBL-FBPH22T203A010			
		15 米 15meters	CBL-FBPH21T203A015	CBL-FBPH22T203A015			
		20 米 20meters	CBL-FBPH21T203A020	CBL-FBPH22T203A020			