SERVOTRONIX | DORNA

高精高速 科技创造美好未来

High Precision & High Speed: Technology Creates a Better Future



高创产品总册

Servotronix Products Collection

精准控制 高效传动

Precise Control, Efficient Motion

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高创公众号
Servotronix Official Account

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样册印刷于2026年9月，欲了解最新产品技术信息，请访问Servotronix官方网站：www.servotronix.cn
This products collection was printed in Septemper 2026. For the latest technical information of products, please visit the official website of Servotronix: www.servotronix.cn

2026/09

公司简介
Company Profile

企业 | About Servotronix

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、嘉善设置研发团队，是一家国际化公司。

Servotronix Motion Control Ltd., founded in Israel in 1987, is a comprehensive solution provider specializing in R&D, production, and 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, Servotronix 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 Servotronix continues to lead the industry in the field of linear drive in China. As an international company, Servotronix has set up R&D teams in Israel, Shanghai and Jiashan.

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、锂电等行业。

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

发展历程
History

2026
LDHD3 高性能伺服驱动器
softMC803 中型运动控制器
LDHD3 High Performance Servo Drive
softMC803 Mid-range Motion Controller
基石资本入驻深度赋能高创
LDHD2 高压高性能伺服驱动器
Cornerstone Capital’s deeply entry empowers Servotronix
LDHD2 High Voltage High Performance Servo Drive

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 Drive
DS2A+DM2A AC Servo System
LVD2 Low Voltage Servo Drive

2024
CD3E 伺服驱动器
smartPX 多合一驱控一体机
P3 系列伺服电机
PH3 系列伺服电机
CD3E Servo Drive
smartPX Controller Integrated with Servo Drive
P3 Series Servo Motor
PH3 Series Servo Motor

2023
BD3 系列交流伺服系统
SC302 控制器
MC804 控制器
CDHD2S 高性能伺服驱动器
BD3 Series AC Servo System
SC302 Controller
MC804 Controller
CDHD2S High Performance Servo Drive

2022
DS2P 伺服驱动器增强版
DM2 伺服电机
PM2 伺服电机
DS2P Series Enhanced Servo Drive
DM2 Servo Motor
PM2 Servo Motor
BDHDE 伺服驱动器增强版
23 位光编编码器
SC301 运动控制器
ET 系列 I/O 扩展模块
BDHDE Enhanced Servo Drive
23-bit Optical Encoder
SC301 Motion Controller
ET Series I/O Expansion Module

2021
高创与东菱技术整合
Integration of Servotronix with Dorna

2020
DS2P 系列产品
DS2P Series Products
BDHDE 伺服驱动器
PH2-R 系列伺服电机
BDHDE Servo Drive
PH2-R Series Servo Motor
美的集团收购东菱
Dorna was acquired by Midea Group

2019
LDHD2 直线驱动器
LDHD2 Linear Drive
新品 DS2 研发成功
Successful Research and Development of New DS2 Servo Drive

2017
美的集团收购高创
Servotronix was acquired by Midea Group

2006
东菱成立
Dorna Founded
DORNA

2000
高创随科尔摩根并入丹纳赫集团
Servotronix Joined Danaher Group With Kohlmorgan

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

1996
CD 系列伺服驱动器
CD Series Servo Drive

1995
被美国科尔摩根收购
Acquired by US-based Kohlmorgan

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

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

1987
高创运动控制成立
Servotronix Founded
SERVOTRONIX | DORNA

产品架构
Product Structure

工业软件 Industrial software

ControlStudio™ | ControlStudio™+ | ServoStudio™ | DriveStudio

控制层 Control layer

紧凑型运动控制器 Compact motion controller
- SC301
- SC302

中型运动控制器 Mid-range motion controller
- softMC803

高性能运动控制器 High performance motion controller
- softMC703S

I/O模块 I/O module
- ET系列 ET series
- TL系列 TL series

HMI

Ethernet
Modbus
EtherCAT
CANopen
Profinet
AP

执行层 Execution layer

直线伺服 Linear servo drive
- CDHD2S系列 CDHD2S series
- LDHD3 (NEW)
- LDHD2高压 LDHD2 high voltage servo drive (NEW)
- CD3E
- CDHD
- CDHD2
- LDHD2

低压伺服 Low voltage servo drive
- LVD2 (NEW)

旋转伺服 Rotary servo drive
- CDHD2S-RO
- BD3E
- DS3E
- DS3P

驱控一体 Controller integrated with servo drive
- smartPX

通用高性能伺服电机 High performance servo motor
- PH3E/S

通用基础型伺服电机 Basic servo motor
- P3E/S/C 系列 P3 series

通用型大功率伺服电机 High power servo motor
- P3G 系列 P3G series

通用基础型伺服电机 Basic servo motor
- DM3 DORNA

编码器 Encoder
- SEA20M / SEA17M 分体式磁电绝对值旋转编码器 Split magnetic absolute rotary encoder
- SEA23P 分体式光电绝对值旋转编码器 Split optical absolute rotary encoder

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运动控制器
Motion controller

紧凑型运动控制器
Compact motion controller

SC300 系列 03-04
SC300 series

中型运动控制器
Mid-range motion controller

softMC803 05-06

高性能运动控制器
High performance motion controller

softMC703S 07-08

I/O 模块
I/O module

ET 系列 09
ET series

TL 系列 09-10
TL series

伺服驱动器
Servo drive

直线伺服
Linear servo drive

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Low-Voltage Drive

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旋转伺服
Rotary servo drive

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Multi-axis drive

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smartPX controller integrated with servo drive

伺服电机
Servo motor

通用高性能伺服电机
High performance servo motor

PH3E/S 51-62

通用基础型伺服电机
Basic servo motor

P3C 63-64

P3E/S 65-66

通用型大功率伺服电机
High power servo motor

P3G 67-68

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SERVOTRONIX

伺服驱动器
Servo drive

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伺服电机
Servo motor

DM3 99-102

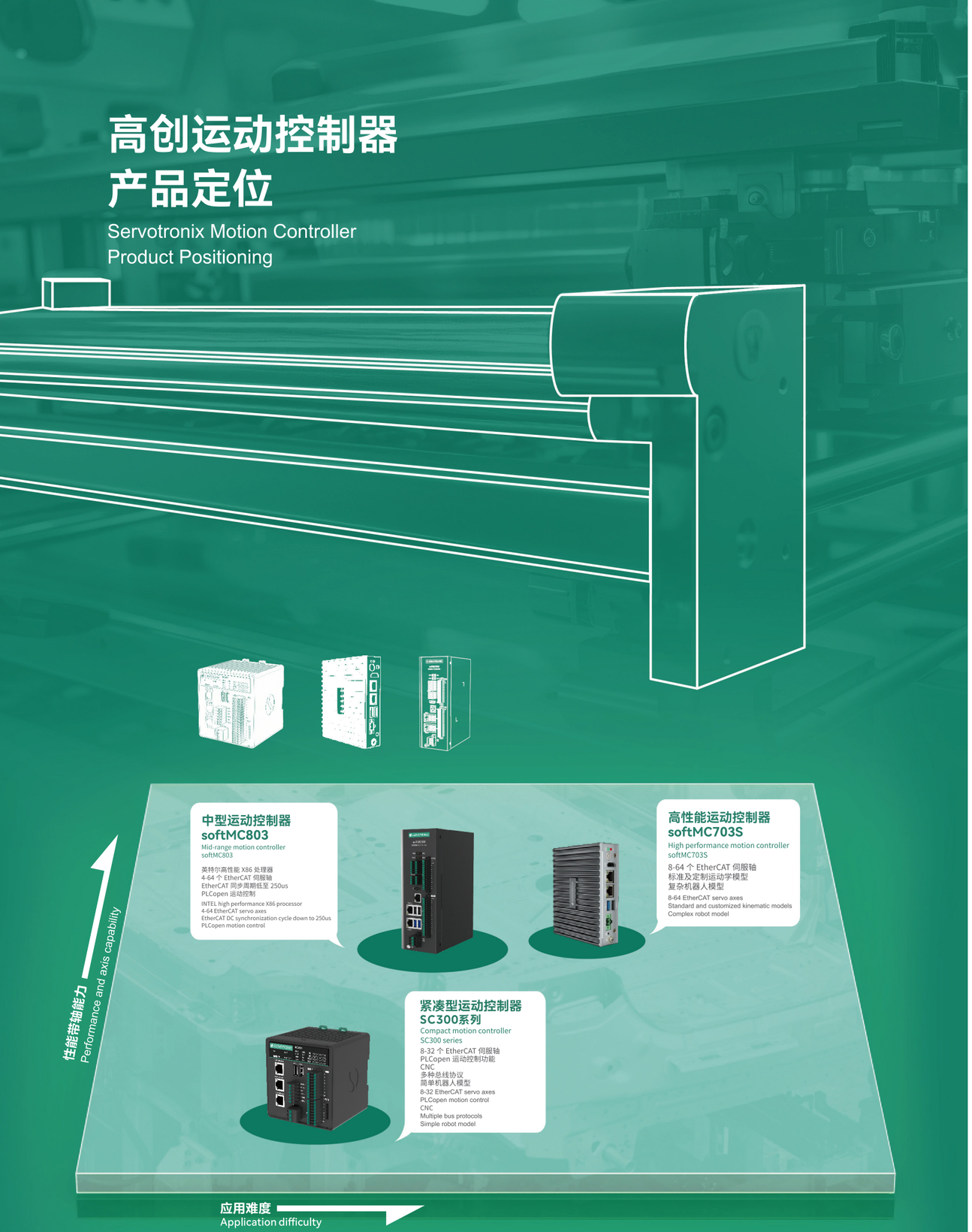
配件
Accessories

DS3P 系列端子 103-104
DS3P series terminals

DORNA

高创运动控制器
产品定位

Servotronix Motion Controller
Product Positioning



运动控制器命名规则

Motion controller naming rules

SC - E 08 - 3 01 - 0 1 05 □□

1 2 3 4 5 6 7 8 9

SC

1 系列 Series

符号 Mark	含义 Meaning
MC	运动控制器 Motion controller
SC	softMC 紧凑型运动控制器 softMC Compact Motion Controller
DC	专用控制器 Dedicated Controller
TC	薄型控制器 Tiny 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	规格 Specification
04	支持 4 轴 4 axes
06	支持 6 轴 6 axes
08	支持 8 轴 8 axes
12	支持 16 轴 16 axes
32	支持 32 轴 32 axes
64	支持 64 轴 64 axes

3

4 CPU

符号 Mark	含义 Meaning
3	ARM
7	X86 以色列研发 X86 Israel
8	X86 中国研发 X86 China

01

（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-Celeron
04	X86-i3
05	X86-i5
07	X86-i7

0

6 操作系统 6 Operating system

符号 Mark	规格 Specification
0	Linux
1	Windows

1

7 软件 7 Software

符号 Mark	规格 Specification
0	ControlStudio
1	CODESYS
2	ControlStudio Plus

05

8 许可证 8 License

符号 Mark	规格 Specification
00	ControlStudio/ ControlStudio Plus
01	PLC
02	02:PLC+ 网络可视化 (WebHMI) 02: PLC + WebHMI
03	03:PLC+SoftMotion
04	04:PLC+SoftMotion+ 网络可视化 (WebHMI) 04: PLC + SoftMotion + WebHMI
05	05:PLC+SoftMotion+ 网络可视化 (WebHMI)+CNC+Robotics 05: PLC + SoftMotion + WebHMI +CNC+Robotics

□□

9 特殊规格 9 Special Specification

符号 Mark	规格 Specification
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 Robotic arms
WM	木工 Woodworking
PV	光伏 Photovoltaics
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

The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

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
CODESYS real-time kernel, supporting EtherCAT fieldbus

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

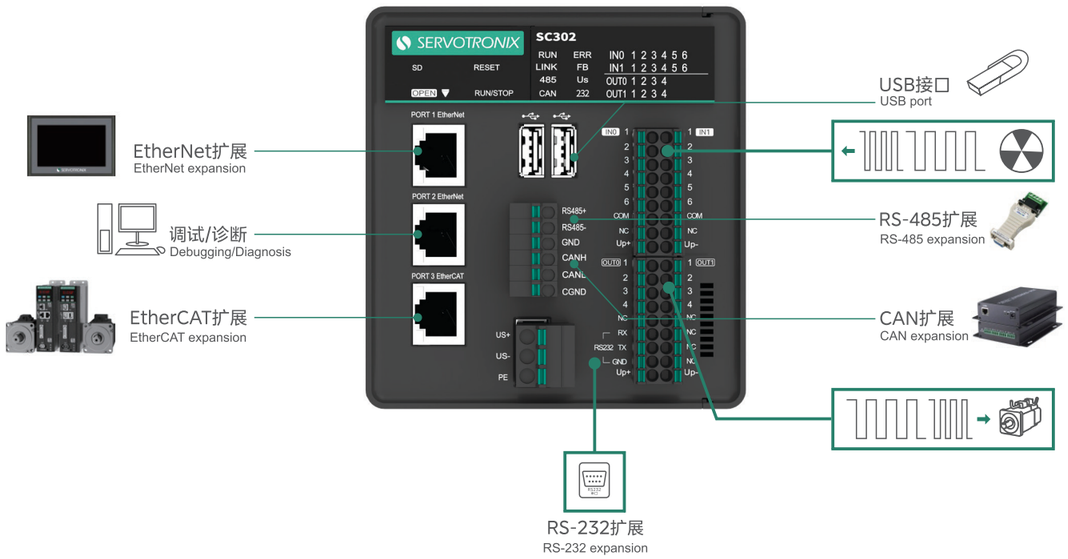
支持本地扩展 16 个 I/O 模块
Up to 16 I/O modules extension

点到点运动、速度 / 位置同步、
G 代码插补 (直线 / 圆弧)、
机器人坐标转换
Point-to-Point Motion, Speed/Position Synchronization, G-code Interpolation (Linear/Circular), Robot Coordinate Transformation

支持 8 点高速输出 &8 点高速输入，
最高频率 200KHz
8 high-speed inputs & 8 high-speed outputs up to 200kHz

支持 RS485/232、CAN 等多种通信接口
Multiple interfaces such as RS-485, RS-232 and CAN

接线图
Wiring diagram



产品规格参数
Product specifications

规格参数 Specifications	SC301	SC302
掉电保持容量 Data Retention Capacity	256 KBytes 256 KBytes	1 MBytes 1 MBytes
时钟 Clock	内置实时时钟 RTC inside	
操作系统 Operating system	Linux	
控制软件 Control software	CODESYS	
EtherCAT	1x RJ45, 标准 EtherCAT 主站 1x RJ45, Standard EtherCAT Master	
以太网 Ethernet	2 x RJ45, 支持 UDP/TCP/IP,Modbus TCP,OPC-UA, PLCHandler 通信 2 x RJ45,Supporting UDP/TCP/IP,Modbus TCP,OPC-UA, PLCHandler Communication	
串口 Serial port	1x RS-485	1x RS-485 1x RS-232C
CAN 接口 CAN port	CANopen 协议 CANopen protocol	
SD 卡 SD card	固件升级 Firmware upgrade	
USB 接口 USB port	用户程序下载 User program download	
带轴能力 Axis capability	2ms@8 轴 ; 4ms@16 轴 2ms@8; 4ms@16	2ms@16 轴 ;4ms@32 轴 2ms@16;4ms@32
本体自带 I/O Built-in I/O	① 16 个 NPN 数字量输入通道 16 NPN digital input channels ② 16 个 NPN 数字量输出通道：500mA/ 每通道 16 NPN digital output channels: 500 mA per channel	① 12 个 NPN/PNP 数字量输入通道，含 8 个高速输入通道 12 NPN/PNP digital input channels, including 8 high-speed input channels ②8 个 NPN 数字量输出通道 , 含 8 个高速输出通道 8 NPN digital output channels, including 8 high-speed output channels
	③支持负载类型：电阻负载、感性负载、电灯负载 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% (non-condensing)	
防护等级 IP 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 cable lug, depth: 110 mm)	

产品选型配置
Product selection and configuration

产品型号 Product model	描述 Description
SC-E08-301-0104	2ms@8 轴，4ms@16 轴，点到点运动、速度 / 位置同步、追剪、飞剪、电子齿轮、电子凸轮、WebHMI 2ms@8, 4ms@16, Point-to-Point Motion, Speed/Position Synchronization, Following Cut, Flying Shear, Electronic Gear, Electronic Cam, WebHMI
SC-E08-301-0105	2ms@8 轴，4ms@16 轴，点到点运动、速度 / 位置同步、追剪、飞剪、电子齿轮、电子凸轮、WebHMI、CNC、机器人坐标转换 2ms@8, 4ms@16, Point-to-Point Motion, Speed/Position Synchronization, Following Cut, Flying Shear, Electronic Gear, Electronic Cam, WebHMI, CNC, Robot Coordinate Transformation
SC-E08-302-0104	2ms@16 轴，4ms@32 轴，点到点运动、速度 / 位置同步、追剪、飞剪、电子齿轮、电子凸轮、WebHMI 2ms@16, 4ms@32, Point-to-Point Motion, Speed/Position Synchronization, Following Cut, Flying Shear, Electronic Gear, Electronic Cam, WebHMI
SC-E08-302-0105	2ms@16 轴，4ms@32 轴，点到点运动、速度 / 位置同步、追剪、飞剪、电子齿轮、电子凸轮、WebHMI、CNC、机器人坐标转换 2ms@16, 4ms@32, Point-to-Point Motion, Speed/Position Synchronization, Following Cut, Flying Shear, Electronic Gear, Electronic Cam, WebHMI, CNC, Robot Coordinate Transformation

softMC803

中型运动控制器
Mid-range motion controller



稳定的实时 Linux 操作系统
Stable real-time Linux operating system

250us@4,500us@8,1ms@32,
2ms@64 个 EtherCAT 伺服轴，
兼顾规模与高精度
250us@4, 500us@8, 1ms@32,
2ms@64 EtherCAT axes,
balancing scale and high precision

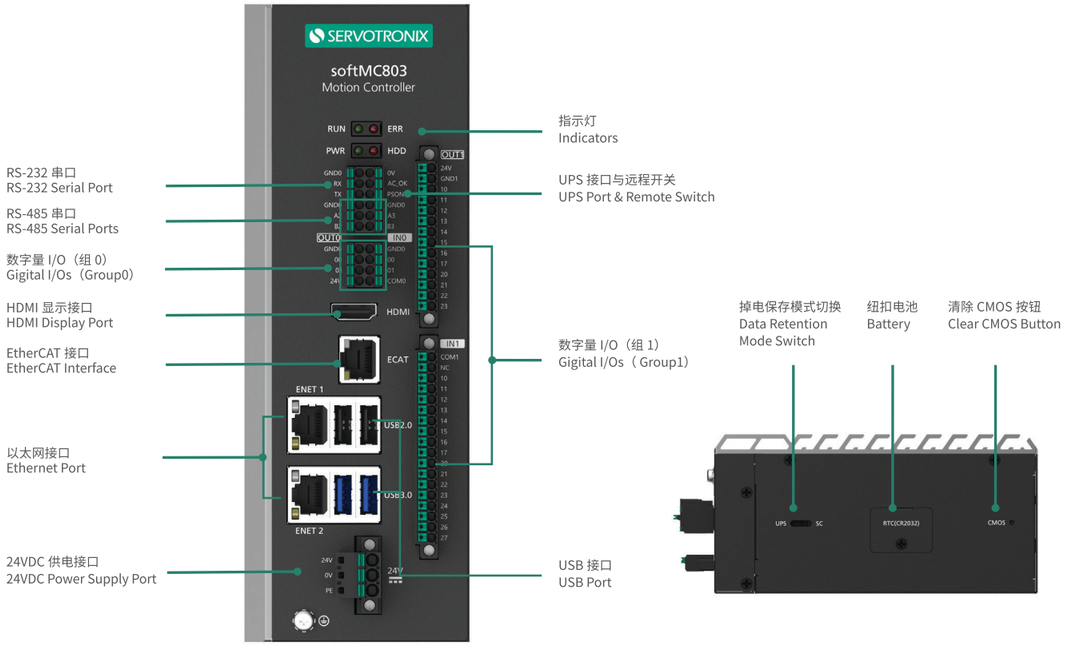
多个任务运行于不同内核，
自动负载均衡
Multi-core task scheduling,
automatic load balancing

点到点运动、速度同步、位置同步、
电子凸轮、电子齿轮、
Point-to-Point Motion, Speed Synchronization, Position Synchronization, E-Cam, E-Gear

本体自带 32 个 I/O，
支持掉电保存
32 integrated I/Os, data retention

G 代码插补、机器人坐标转换、
WebHMI
G-code Interpolation, Robot Coordinate Transformation, WebHMI

接线图
Wiring diagram



产品规格参数
Product specifications

规格参数 Specifications	描述 Description
供电电源 Power Supply	24VDC
操作系统 Operating System	实时 Linux Real-time Linux
控制内核 Control Kernel	CODESYS
中央处理器 CPU	Intel® 4 核处理器，2.0GHz 主频 Intel® quad-core processor with a peak frequency of 2.0GHz
内存 RAM	4GB
储存 Storage	128GB
程序容量 Program Capacity	128MB
数据容量 Data Capacity	128MB
掉电保存容量 Data Retention Capacity	5MB
以太网 Ethernet	2 x RJ45, Intel 千兆网卡 , 支持 UDP/TCP/IP, Modbus TCP, OPC-UA, PLCHandler 通信 2 x RJ45 ports with Intel GbE chipsets, supporting UDP/TCP/IP, Modbus TCP, OPC-UA and PLCHandler communication protocols
运动控制 Motion Control	点到点运动、速度同步、位置同步、电子凸轮、电子齿轮、数控、机器人 Point-to-Point Motion, Speed Synchronization，Position Synchronization, E-Cam, E-Gear,CNC,Robotics
EtherCAT	1 x RJ45, Intel 千兆网卡 , 标准 EtherCAT 主站 1 x RJ45 port with Intel GbE chipset, supporting standard EtherCAT master
带轴能力 Axis Support Capacity	250us@4，500us@8, 1ms@32, 2ms@64 EtherCAT 轴 250us@4，500us@8, 1ms@32, 2ms@64 EtherCAT Axes
本体 I/O Integrated I/Os	18DI,NPN&PNP,14DO,NPN
串口 Serial Ports	2x RS-485 + 1x RS-232，支持 Modbus RTU 协议和自由协议 2 x RS-485 + 1 x RS-232, supporting Modbus RTU protocol & free protocol
WebHMI	支持 Supported
UPS	支持 Supported
远程开关 Remote Switch	支持 Supported
USB	2 x USB3.0 + 2 x USB2.0
HDMI	分辨率 :3840 x 2160, @30Hz Resolution:3840 x 2160, @30Hz
安装方式 Installation	DIN 导轨 / 壁挂式 DIN-rail / Wall
工作温度 / 储存温度 Operating/Storage Temperature	(-20~55)°C / (-40~80)°C
相对湿度 Relative umidity	95%（无凝结） 95%（non-condensing）
防护等级 IP Rating	IP 20
尺寸 Dimensions	74 mm x 210 mm x 169 mm (W x H x D)，含端子，不含支架 (terminal included bracket not included)
认证 Certification	CE

产品选型配置
Product selection and configuration

产品型号 Product model	描述 Description
MC-E64-803-0105	SoftMotion + WebVisu + CNC +Robotics

softMC703S

高性能运动控制器
High performance motion controller



- 开放式、模块化的软件环境 Open and modular software environment
- 高实时性 Linux 操作系统 High real-time Linux operating system
- 以太网人机接口 Ethernet HMI
- 小体积，满足安装空间苛刻要求 Small size to meet stringent installation space requirements
- 支持 EtherCAT EtherCAT fieldbus
- 可控制最多 64 个轴 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 solution

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	实时 Linux Real-time Linux
控制软件 Control software	softMC/Controlstudio+
CPU	Intel® 双核处理器 Intel® dual-core processor
RAM	4GB
储存 Storage	64GB
Ethernet	1 x RJ45, Intel GbE, 支持 TCP/IP, Modbus TCP, OPC-UA 通信 1 x RJ45, Intel GbE, supporting TCP/IP, Modbus TCP, OPC-UA communication
EtherCAT	1 x RJ45, Intel GbE, 标准主站 1 x RJ45, Intel GbE, standard master
USB	1x USB3.2; 1 x USB2.0
串口 Serial Port	1x RS-232C，支持 Modbus RTU 通信 1x RS-232C, supporting Modbus RTU protocol
HDMI	最高分辨率 4096 x 2304@30Hz Max resolution 4096 x 2304@30Hz
安装方式 Installation	DIN 导轨安装 / 壁挂式安装 DIN-rail/wall mounted
工作温度 / 储存温度 Operating temperature/ Storage temperature	-20 至 55°C /-40 至 80°C -20 to 55°C /-40 to 80°C
相对湿度 Relative humidity	95% (无凝结) 95% (non-condensing)
防护等级 IP rating	IP 30
尺寸 Dimensions	38 mm x 135 mmx 105 mm (WxHxD)
认证 Certification	CE/UKCA/WEEE

产品选型配置
Product selection and configuration

产品型号 Product model	描述 Description	
MC-E08-703S-0000 MC-E16-703S-0000	1 单轴 / 多轴运动 (移动、点动) 2 电子凸轮表、电子齿轮 , 速度同步功能 3 G 代码插补指令 (移动、圆弧) 4 模拟运动 (离线程序仿真) 5 3D 补偿表功能 6 内置机器人运动学和动力学模型 7 传送带跟踪功能 8 碰撞检测	1 Single-axis/multi-axis motion (move, jog) 2 Electronic cam table, electronic gear, speed synchronization 3 G-code interpolation commands (move, arc) 4 Motion simulation (offline program simulation) 5 3D compensation table 6 Built-in robot kinematics and dynamics models 7 Conveyor belt tracking 8 Collision detection

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, compatible with standard EtherCAT master

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

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

免工具接线，前置连接器，便于维护
Tool-free wiring and front connectors for easy maintenance

产品规格参数
Product specifications

产品型号 Product model	描述 Description
ET0100	EtherCAT 耦合器 EtherCAT coupler
ET1216	8 通道数字输入，NPN/0V 有效 / 源型　8 通道数字输出 ,NPN/OV 8-channel DI, NPN/0V active/source　8-channel DO, NPN/0V
ET1316	8 通道数字输入 .PNP/24V 有效 / 漏型　8 通道数字输出，PNP/24V 8-channel DI, PNP/24V active/sinK　8-channel DO, PNP/24V
ET9000	终端盖板模块 Terminal cover module

TL 系列
TL 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, compatible with standard EtherCAT master

支持数字量、模拟量、温度模块、编码器模块等
Supporting digital, temperature,analog and encoder modules

产品规格参数
Product specifications

分类 Classification	产品型号 Product model	描述 Description
EtherCAT 耦合器 EtherCAT coupler	TL0100	EtherCAT 耦合器 EtherCAT coupler
TL 终端盖板 TL terminal cover	TL9000	终端盖板 Terminal cover
数字量输入模块 Digital input module	TL1016	16 通道数字量输入，PNP/24V 有效 16-channel DI, PNP/24V active
	TL1116	16 通道数字量输入，NPN/0V 有效 16-channel DI, NPN/0V active
数字量输出模块 Digital output module	TL2016	16 通道数字量输出，PNP/24V,0.5A/ 通道 16-channel DO, PNP/24V, 0.5A/CH
	TL2116	16 通道数字量输出，NPN/0V, 0.5A/ 通道 16-channel DO, NPN/0V, 0.5A/CH
数字量混合输入输出模块 Digital input/ output module	TL1516	8 通道数字量输入 , PNP/24V 有效兼容 NPN/0V 有效 8-channel DI, PNP/24V active & NPN/0V active 8 通道数字量输出：PNP/24V, 0.5A/ 通道 8-channel DO: PNP/24V, 0.5A/CH
模拟量输入模块 Analog input module	TL3104	4 通道电压输入，0~5VDC/0~10VDC/±5VDC/±10VDC,15 位 /16 位，通道隔离 4-channel voltage input, 0~5VDC/0~10VDC/±5VDC/±10VDC, 15-bit/16-bit, channel isolated
	TL3108	8 通道电压输入 ,0~5VDC/0~10VDC/±5VDC/±10VDC,15 位 /16 位 8-channel voltage input, 0~5VDC/0~10VDC/±5VDC/±10VDC, 15-bit/16-bit
	TL3204	4 通道电流输入，0&4~20mA，15 位，单端 4-channel current input, 0&4~20mA, 15-bit, single-ended
	TL3208	8 通道电流输入，0&4~20mA，15 位，单端 8-channel current input, 0&4~20mA, 15-bit, single-ended
温度采集模块 Temperature acquisition module	TL3703	3 通道热电阻输入，RTD-PT100 3-channel RTD input, RTD-PT100
	TL3704	4 通道热电阻输入，RTD-PT100，通道隔离 4-channel RTD input, RTD-PT100, channel isolated
	TL3803	3 通道热电阻输入，RTD-PT1000 3-channel RTD 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
模拟量输出模块 Analog output module	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 通道电流输出，0&4~20mA，16 位，单端 4-channel current output, 0&4~20mA, 16-bit, single-ended
高速计数模块 High-speed counting module	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
通信模块 Communication module	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
电源模块 Power module	TL9410	电源扩展模块，SV:5V/2AFV:24V/8A Power expansion module, SV: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 saw

划片机主要应用于将磨砂处理后的晶圆，切割成一个个独立的芯片，为后续工序做准备。
Dicing saws are mainly used to cut ground wafers into individual dies to prepare for subsequent processes.

设备描述 Description

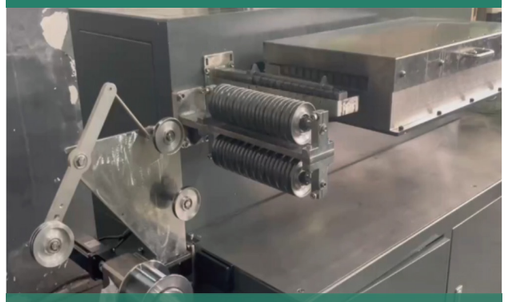
远程读取和解析上位机生成的轨迹文件 (Dat)，上位机与下位机大量数据需要高速通讯；上位机视觉系统读取划片轨迹数据生产为划切轨迹文件，MC804 通过远程文件共享方式读取该文件，进行解析。对数据传输的速度和稳定性有高要求。
高精度测高和快速停止
划片之前，需要通过自动测高来检测平台的高度。测高的时候，主轴是高速旋转的，测高精度对加工质量非常关键。测高完成后能否快速停止 Z 轴并上抬，也非常重要。停止距离过长，切刀会损伤台面。
划切精度极高
① Y 轴单步精度 ±0.003mm; ② Z 轴重复精度 0.002mm; ③ E 轴定位精度 ±30

The trajectory file (Dat) generated by the upper computer are remotely read and parsed, which requires high speed communication for large amounts of data between the upper computer and the lower computer. The vision system of the upper computer reads the dicing trajectory data to generate a dicing trajectory file, and the MC804 reads and parses this file through remote file sharing, posing high requirements for data transmission speed and stability.
High precision height measurement and rapid stop
Before dicing, the height of the stage needs to be detected through automatic height measurement. During height measurement, the main axis rotates at high speed, and the accuracy of the measurement is critical to the processing quality. The ability to quickly stop and lift Z-axis after height measurement is also very important. If the stopping distance is too long, the cutting blade will damage the worktable.
Ultra-high dicing accuracy
① Y-axis single-step accuracy: ±0.003mm; ② Z-axis repeated accuracy: 0.002mm; ③ E-axis positioning accuracy: ±30

配置清单 Configuration

MC803	X 1	I/O 模块 I/O module	若干 As demanded
CDHD、CDHD2	X 4	第三方视觉上位机 Third-party vision upper computer	X 1

光伏行业 Photovoltaic 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
Wire drawing machine is used to produce diamond wire for PV cable cutting equipment, by drawing thick tungsten wires into thin ones.

设备描述 Description

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/unwinding tension control
The minimum output wire diameter is 0.028~0.034mm; the wire drawing speed is 100~150m/min; and the single wire length is >=125km. The tension for thin wire rewinding does not exceed 1.2N. Indirect tension control is used, requiring a tension fluctuation of no more than 0.1N and a stable and continuous rewinding. The active unwinding force is less than 0.6N, with continuous torque control designed.
Re-winding wire arrangement control
The wire reciprocates via the wire arrangement axis during rewinding to ensure an even arrangement.
Multiple sets of temperature control are implemented, with heating furnace temperature deviation less than +5° C, and heating film temperature deviation less than +2° C.

配置清单 Configuration

MC803	X 1	触摸屏 FE9100WE	Touch screen FE9100WE	X 1
CDHD、CDHD2	X 4	第三方视觉上位机	Third-party vision upper computer	X 1
I/O 模块 I/O module	若干 As demanded	PH2		X 4

3C 行业 3C industry



插件机
Insertion 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。 An insertion machine is a mechanical device that automatically inserts regular electronic components into the conductive holes on a printed circuit board in a standard manneer.

设备描述 Description

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 motion
Based on the component list, the continuous main axis rotates at high speed to complete multi-axis cam interpolation logic, and the X and Y axes move the worktable to insert the components into the PCB.
Complex insertion logic
The component insertion logic and the material replenishment logic are calculated based on the component list. The feeding mechanism needs to arrange materials according to the formula, ensuring strict consistency and no empty slots.

配置清单 Configuration

MC803	X 1	CDHD、CDHD2	X 1
I/O 模块 I/O module	若干 As demanded	第三方视觉上位机 Third-party vision upper computer	X 8

印刷行业 Description



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
This machineis designed to print various patterns on the outer surface of daily chemical bottles of various shapes by screen printing.

设备描述 Description

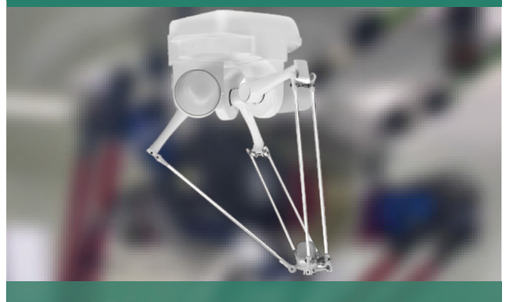
多种图形的轨迹联动
日化品瓶具有多种形状：圆形、椭圆、倒圆角方形、八面弧形等。需要通过计算各种形状尺寸，来控制网板、挂刀、旋转、抬刀进行四轴插补。印刷时刮刀需要始终跟踪图案最高点，网板移动和图形外表面要求距离严格同步。

Trajectory linkage for various patterns
Daily chemical bottles come in various shapes: round, oval, rounded-corner square, octagonal curved, etc. The shape and dimensions of the bottles need to be calculated to control the screen, squeegee attachment, rotation, and lifting for four-axis interpolation. During printing, the squeegee needs to consistently track the highest point of the pattern, and the movement of the screen must be strictly synchronized with the outer surface of the shape to meet the required distance.

配置清单 Configuration

MC803	X 1	I/O 模块 I/O module	若干 As demanded
BD3 系列 BD3 series	X 5	触摸屏 PT1001-1007 Touch screen PT1001-1007	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 is designed with a parallel structure, including three parallel linkage axes and one planar rotation axis, to achieve planar handling of small items. It is widely applied in industries such as food, medicine, and cosmetics.

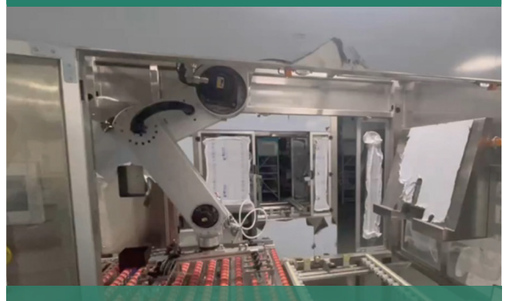
设备描述 Description

> 坐标系偏移、旋转	> Coordinate system offset and rotation
> 配合视觉手眼标定和取放	> Hand-eye calibration and pick-and-place with vision system
> 空间保护	> Spatial protection
> 节拍	> Cycle time

配置清单 Configuration

SC301	X 1	触摸屏 PT1001-1010 Touch screen PT1001-1010	X 1
BD3 系列 +PH2 BD3 series + 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 for movement and angle control within a plane. It is widely applied in pick-and-place applications for packaging equipment. Sometimes it is also configured on a movable base to achieve dynamic pick-and-place of products.

设备描述 Description

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，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。

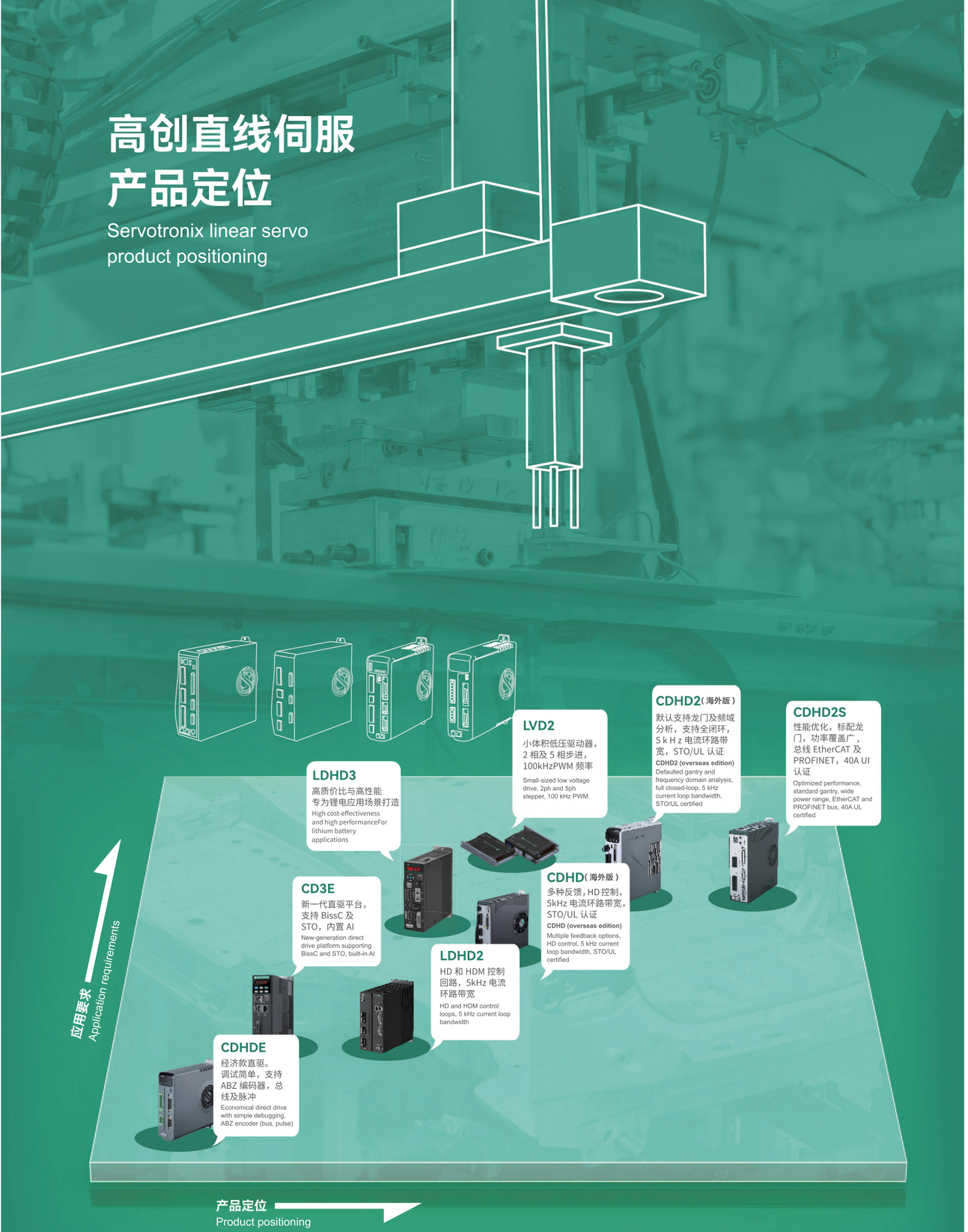
Robot forward and inverse kinematics calculation
By establishing a mathematical model based on the mechanical structure of the SCARA robot, the angle data of J1, J2, and J3 are calculated from the (x, y, r) coordinates in planar space. This enables motion control of the robot on a general-purpose motion controller, simplifying the control system of the robot.
Trajectory teaching and path smoothing
The position points for pick-and-place actions need to be teachable to simplify equipment operation, and the movement speed must be fast but stable. The trajectory smoothing function allows the trajectories of multiple points to be smoothed, significantly improving operating speed and stability.

配置清单 Configuration

SC301	X 1	触摸屏 PT1001-1010 Touch screen PT1001-1010	X 1
BD3 系列 +PH2 BD3 series + PH2	X 4		

高创直线伺服
产品定位

Servotronix linear servo
product positioning



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

CDHD2S - 006 - 2A AP1 - ST

1 2 3 4 5

CDHD2S

1 序列号 Series

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
CD3E	CD3E 经济型伺服驱动器 CD3E Economical servo drive

CDHD2S

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 current (Arms)	峰值电流 (A rms) Peak current (Arms)
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	130

输入电压 380 VAC Input voltage 380 VAC

符号 Mark	连续电流 (A rms) Continuous current (Arms)	峰值电流 (A rms) Peak current (Arms)
003	3	9
006	6	18
012	12	24
024	24	72
030	30	90
040	40	120
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 current (Arms)	峰值电流 (A rms) Peak current (Arms)
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
The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

3 电压等级 Voltage class

符号 Mark	规格 Specification	
1D	低电压输入电源 20-90 VDC(用于电机电源)	Low voltage input power supply 20-90 VDC (for motor power supply)
2A	中压输入电源 单相输入 120L-L VAC +10%-15%50/60 HZ 单相输入 240L-L VAC +10% -15%50/60 Hz 三相输入 120-240 L-L VAC +10%-15%50/60 Hz	Medium voltage input power supply 1ph input 120L-L VAC +10%-15%50/60 HZ 1ph input 240L-L VAC +10% -15%50/60 Hz 3ph input 120-240 L-L VAC +10%-15%50/60 Hz
4D	高压输入电源 输入三相 400 L-L VAC +10% -15%50/60 Hz 输入三相 460 L-L VAC +10% -15%50/60 Hz 输入三相 480 L-L VAC+10% -15%50/60 Hz 24VDC 控制板供电	High voltage input power supply 3ph input 400 L-L VAC +10% -15%50/60 Hz 3ph input 460 L-L VAC +10% -15%50/60 Hz 3ph input 480 L-L VAC+10% -15%50/60 Hz 24VDC 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 None
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、EtherNET、USB	1 或 2* 1 or 2*
EB2	EtherCAT、脉冲方向、USB、RS232 EtherCAT, pulse/direction, USB, RS232	2
PN2	模拟电压、脉冲方向、USB、profiNET Analog voltage, pulse direction, USB, PROFINET	2
EG	EtherCAT、 EtherNET、 Gantry	无 None

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

* 标准配置
*Standard

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

符号 Mark	规格 Specification	功能安全认证 * Functional safety certification*
空 Blank	旋转和直线伺服电机 Rotary and linear servo motors	无 None
Pb0	旋转伺服电机 Rotary servo motor	无 None
APx	支持旋转变压器 Resolver supported	无 None
AFX	根据市场需求的定制产品。 Customized products based on market demand	无 None

* 功能安全认证选项不适用于以下情况：
*Functional safety certification is not applicable to:

220 VAC 驱动器：型号 020、024
220 VAC drives: Models 020, 024

380 VAC 驱动器：型号 024、030
380 VAC drives: Models 024, 030

CDHD2S-EC/AP

直线伺服
Linear servo drive



高性能电机控制
High performance motor control

提供多种反馈接口
Multiple feedback interfaces

通过第二反馈，
全闭环高精度控制
Secondary feedback interface for high-precision closed-loop control

位置比较输出模块
Position comparison output module

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

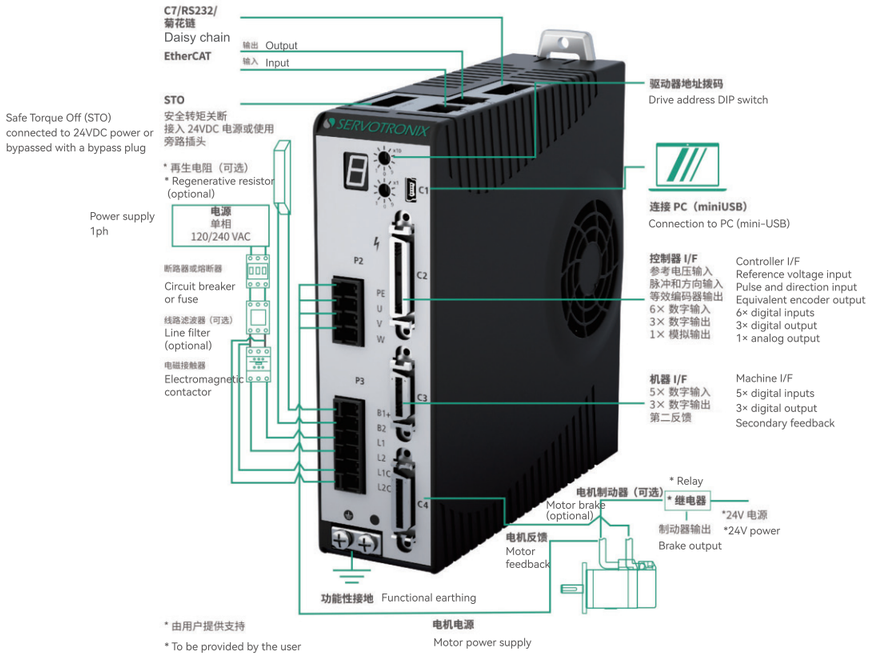
安全转矩关闭功能 (STO)
Safe Torque Off (STO)
高功率密度
High power density

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 to minimize position error and shorten positioning time to about zero

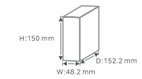
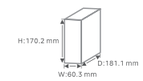
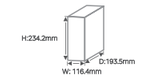
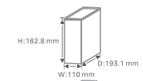
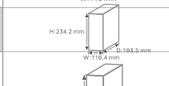
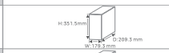
符合 CE、RoHS 认证
CE and RoHS certified

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 Operating temperature: 0-55° C for medium-voltage models, and 0-45° C for other models; storage temperature: 0-70° C
湿度 Humidity	湿度：10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级：IP20，污染程度：IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree: IEC 60664-1, Level 2

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	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
CDHD2S-0031DEC2	20-90VDC	单相 1ph	3	9	
CDHD2S-1D52AEC2/AP1	120/240VAC +10%~-10%	单相 1ph	1.5	4.5	
CDHD2S-0032AEC2/AP1		单相 1ph	3	9	
CDHD2S-4D52AEC2/AP1		单 / 三相 1ph/3ph	4.5	18	
CDHD2S-0062AEC2/AP1		单 / 三相 1ph/3ph	6	18	
CDHD2S-0082AEC2/AP1		单 / 三相 1ph/3ph	8	31.8	
CDHD2S-0102AEC2/AP1		单 / 三相 1ph/3ph	10	31.8	
CDHD2S-0132AEC2/AP1		三相 3ph	13	31.8	
CDHD2S-0202AEC2/AP1		三相 3ph	20	72	
CDHD2S-0242AEC2/AP1*		三相 3ph	24	72	
CDHD2S-0034DEC2	380/480VAC +10%~-10%	三相 3ph	3	9	
CDHD2S-0064DEC2		三相 3ph	6	18	
CDHD2S-0124DEC2		三相 3ph	12	24	
CDHD2S-0244DEC2		三相 3ph	24	72	
CDHD2S-0304DEC2		三相 3ph	30	90	
CDHD2S-0404DEC2		三相 3ph	40	120	
CDHD2S-0604DEC2		三相 3ph	60	180	

* 无控制电源输入，功率电源和控制电源共用
*No control power supply input is designed; power supply for power also serves as the control power supply

产品选型配置
Product selection and 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	Supported
数字量输入	Digital input	11 路，三路快速输入	11 channels, including 3 fast input channels
数字量输出	Digital output	8 路，两路快速输出	8 channels, including 2 fast output channels
全闭环	Full closed-loop	支持	Supported
直驱抱闸	Direct drive brake	无，通过 IO 控制继电器	None, relay control via IO
		控制模式 Control mode	
调试口	Debugging port	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	支持	Supported
位置比较输出功能	Position comparison output	支持，两路输出	Supported, 2 outputs
探针功能	Touch probe	支持，两路输入	Supported, 2 inputs

典型行业应用
Typical industry applications

半导体行业 Semiconductor 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

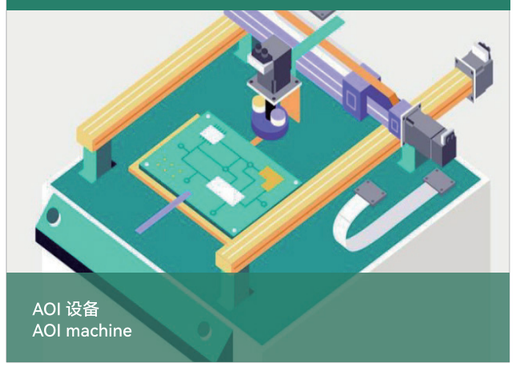
The vacuum coating machine requires the rotary motor to operate in a vacuum environment, posing high requirements for high motor stability and effective heat control. The CDHD2S-PN servo drive is a perfect fit as it supports Profinet, meets the requirements for low voltage DC input, and is fully compatible with third-party custom motors.

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
> 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

> When an encoder supporting Tamagawa protocol is used, the motor meets the customer's requirement for PLC-controlled homing after a mechanical position change in case of a power outage
> The customer's technical team needs to access and view the drive's real-time torque feedback for monitoring
> The overall machine control is based on the PN bus, involving message 3 and extra message 750

3C 行业 3C industry



AOI 设备
AOI machine

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

The AOI (Automated Optical Inspection) machine works to detect defects based on optical principles. It is widely applied in industries such as printed circuit boards, touch panels, and semiconductors

核心工位 Core station

> 点到点定位
> 直线、圆弧插补
> 路径规划

> Point-to-point positioning
> Linear and circular interpolation
> Path planning

性能表现 Performance

> 线速度 150mm/sec
> 轨迹精度 ±0.02mm
> 整定时间 3-5ms

> Linear velocity 150mm/sec
> Trajectory accuracy: ±0.02 mm
> Tuning time: 3-5 ms

光伏行业 Photovoltaic industry



叠片机设备
Laminating machine

核心工位 Core station

> S1 叠片下料平移电机 CDHD2S-006
> S1 定位取料平移电机 CDHD2S-012
> S1 负料盒取料平移电机 CDHD2S-012
> S1 隔膜储料电机 CDHD2S-012
> S1 正料盒取料平移电机 CDHD2S-012

> S1 laminated sheet loading translation motor: CDHD2S-006
> S1 positioning and retrieving translation motor: CDHD2S-012
> S1 negative electrode magazine retrieving translation motor: CDHD2S-012
> S1 separator storage motor: CDHD2S-012
> S1 positive electrode magazine retrieving translation motor: CDHD2S-012

核心工位 Core station

> 性能 : 要求最高运行速度 3m/s, 加减速 3g,10 μ 以内的稳态误差，以及整定时间在 50ms 以内
> 功能 : 总线控制
> 方案完整 : CDHD2S 驱动器
> 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

> Performance: max operating speed: 3 m/s; acceleration/deceleration: 3g; steady-state error ≤ 10 μm; tuning time ≤ 50 ms
> Function: Bus control
> Complete solution: CDHD2S drive
> Usability: Convenient debugging and maintenance, with HD non-linear control algorithm adopted for effectively suppressing end-effector vibrations

CDHD2S-PN-RS

直线伺服
Linear servo drive



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 Operating temperature: 0-55° C for medium-voltage models, and 0-45° C for other models; storage temperature: 0-70° C
湿度 Humidity	湿度：10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级：IP20，污染程度：IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree: IEC 60664-1, Level 2

高性能电机控制
High performance motor control
PROFINET IRT 等时同步通讯
PROFINET IRT isochronous real-time communication

提供多种反馈接口
Multiple feedback interfaces

通过第二反馈，全闭环高精度控制
Secondary feedback interface for high-precision closed-loop control

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 to minimize position error and shorten positioning time to about zero

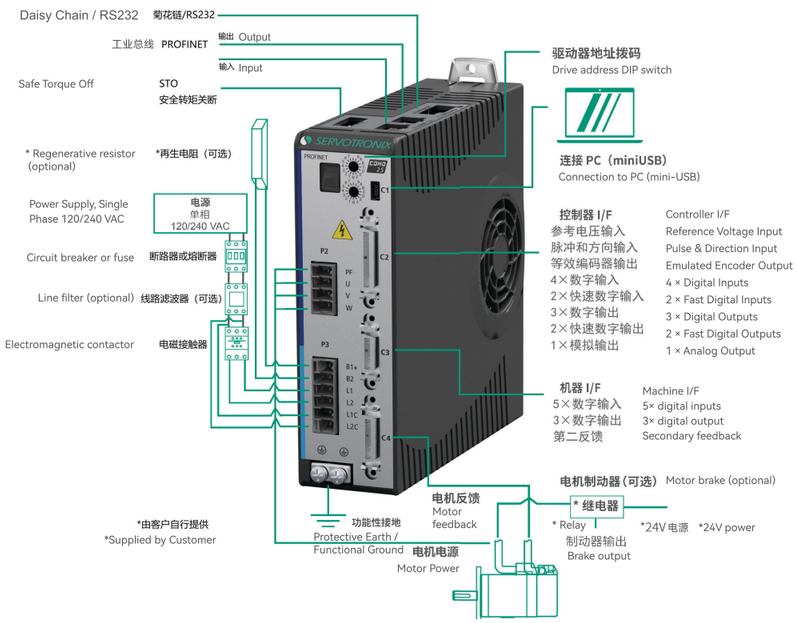
高功率密度
High power density
安全转矩关闭功能 (STO)
Safe Torque Off (STO)

CDHD2S-4D52APNU-RS、CDHD2S-0062APNU-RS 型号符合 UL 认证规范
CDHD2S-4D52APNU-RS and CDHD2S-0062APNU-RS comply with UL certification specifications

符合 CE、RoHS 认证
CE and RoHS certified

PROFINET 报文
PROFINET message
1, 2, 3, 5, 7, 9, 102, 105, 110, 111, 112, 750

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	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
CDHD2S-1D52APN□-RS	120/240VAC +10%~-10%	单相 1ph	1.5	4.5	H:173mm W:47.7mm D:152.2mm
CDHD2S-0032APN□-RS		单相 1ph	3	9	
CDHD2S-4D52APN□-RS		单相 / 三相 1ph/3ph	4.5	18	H:173.4mm W:53.2mm D:161.1mm
CDHD2S-0062APN□-RS		单相 / 三相 1ph/3ph	6	18	
CDHD2S-0082APN□-RS		单相 / 三相 1ph/3ph	8	31.8	H:194.3mm W:60.3mm D:181.1mm
CDHD2S-0102APN□-RS		单相 / 三相 1ph/3ph	10	31.8	
CDHD2S-0132APN□-RS		三相 3ph	13	31.8	
CDHD2S-0034DPN□-RS	380/400/480VAC +10%~-10%	三相 3ph	3	18	H:172.2mm W:110mm D:193.1mm
CDHD2S-0064DPN□-RS		三相 3ph	6	18	
CDHD2S-0124DPN□-RS		三相 3ph	12	24	H:145.4mm W:116.4mm D:193.5mm
CDHD2S-0244DPN□-RS		三相 3ph	24	72	H:353mm W:163.3mm D:209.3mm
CDHD2S-0304DPN□-RS		三相 3ph	30	90	
CDHD2S-0404DPN□-RS		三相 3ph	40	120	H:351.5mm W:179.3mm D:209.3mm
CDHD2S-0604DPN2		三相 3ph	60	180	H:610mm W:330mm D:310mm

PN：PND、PNR、PNU，详细区别请见宣传手册　For detailed differences, please refer to the brochure

产品选型配置
Product selection and 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	Supported
数字量输入	Digital input	11 路，三路快速输入	11 channels, including 3 fast input channels
数字量输出	Digital output	8 路，两路快速输出	8 channels, including 2 fast output channels
全闭环	Full closed-loop	支持	Supported
直驱抱闸	Direct drive brake	无，通过 IO 控制继电器	None, relay control via 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	支持	Supported
位置比较输出功能	Position comparison output	支持，两路输出	Supported, 2 outputs
探针功能	Touch probe	支持，两路输入	Supported, 2 inputs

LDHD3



高性能
电流环带宽：5.0KHz
速度环带宽：3.0KHz
High performance
Current loop bandwidth: 5.0 KHz
Speed loop bandwidth: 3.0 KHz

支持电机类型
直线电机，DD 马达
旋转伺服电机
Supported motor types
Linear motors, DD motors, rotary servo motors

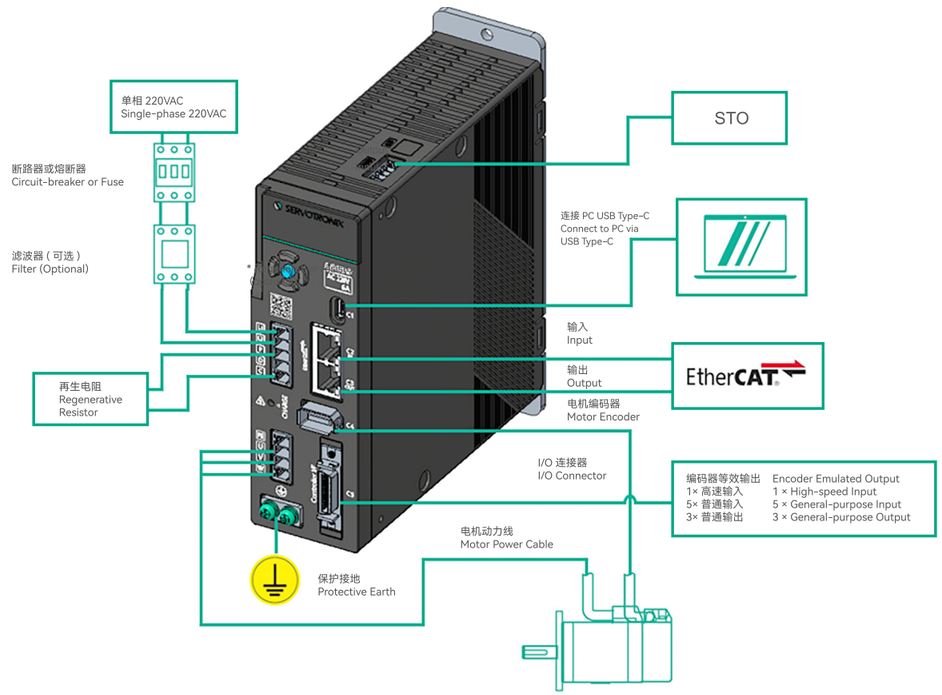
EtherCAT 总线，STO
位置分频，高速探针
EtherCAT bus, STO, position-based frequency division, high-speed probe

支持多种编码器类型
AB 增量，BissC
多摩川
Supported multiple encoder types
Incremental AB, BissC, Tamagawa

一键自整定和在线自整定
One-click auto tuning and online auto tuning

高、中、低全频段振动抑制，
模型跟踪 MFC，扰动抑制
摩擦补偿，重力补偿，增益切换，
自适应陷波器
Full-frequency band (high, medium and low) vibration suppression, model following control (MFC), disturbance suppression
Friction compensation, gravity compensation, gain switching, adaptive notch filter

接线图
Wiring diagram



产品选型配置
Product selection and configuration

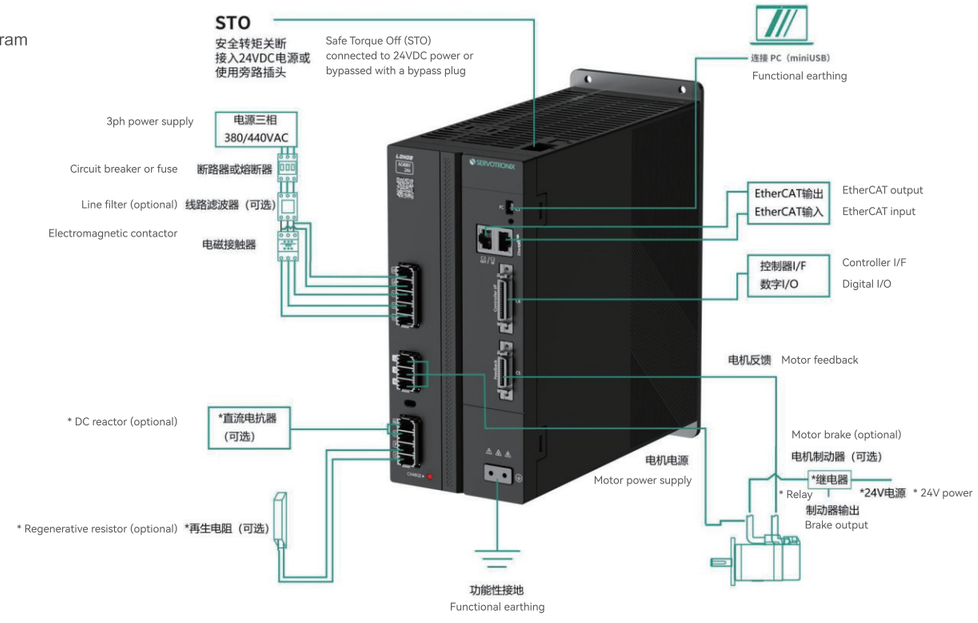
规格 Specification		LDHD3-0062AEB	LDHD3-0102AEB
额定值 Ratings			
功率电路输入 L1、L2、L3 Power circuit inputs L1, L2. L3	额定电压 (L-N)±10% Rated voltage (L-N)+10%	220	220
	线频率 (Hz) Line frequency (Hz)	50160	50160
	交流电压 220V 220 VAC	单相 1ph	单相 / 三相 1ph/3ph
	连续电流 (单相 / 三相 Arms) Continuous current(1ph/3ph,Arms)	9	1418
	线熔断器 (FRN-R、LPN，或同等产品)(A) Line fuse (FRN-R, LPN,or equivalent)(A)	16	3
驱动器输出 Drive output	连续输出电流 (Amms) Continuous output current (Arms)	6	10
	连续输出电流 (Apeak) Continuous output current (Apeak	8.48	14.14
	峰值输出电流 (Ammms)2 秒 Peak output current(Arms) for 2s	18	30
	峰值输出电流 (Apeak)2 秒 Peak output current (Apeak) for 2s	25.45	42.42
	kVA，交流电压 220V kVA.220 VAC	1.5	2.2
	PWM 频率 (kHz) PWM frequency (kHz)	16	8
硬件 Hardware			
连接规格 Connection specification	PE 接地螺钉尺寸 / 扭矩 PE screw/torque	M4/1.35 Nm	M4/1.35 Nm
线缆规格 Cable specification	控制电路 (3 米以下)(AWG) Control circuit (<3 m)(AWG)	24-28	24-28
	主电路电动机线路 (AWG) Main circuit motor line (AWG	16	14
	主电路交流输入 (AWG) Main circuit AC input (AWG)	16	14
间距规格 Clearance specification	安装方式 Installation	书本式 Installation of Book	书本式 Installation of Book
	左右 (mm) Left/right (mm)	10	10
	顶部 / 底部 (mm) Top/bottom (mm)	5o	50
电压保护 Voltage protection	欠压保护值 (VDC) Undervoltage protection value (VDC)	180	180
	过压保护值 (VDC) Overvoltage protection value (VDC)	400	400
风扇 Fan	风扇启动条件 Fan activation conditions	使能开启 Enable	使能开启 Enable
外部再生电阻器 (P、D) Extemal regenerative resistor (P. D)	最小电阻 (Ω) Min resistance(Ω)	40	20
	最大电流 (A) Max curent (A)	10	30
	内部直流母线电容量 (F) Internal bus capacitance(uF)	940	2040
	再生制动电路关闭电压 (VDC) regenerative circuit off voltage (VDC)	380	380
	再生制动电路启动电压 (VDC) regenerative circuit on voltage (VDC)	390	390

LDHD2 高压 LDHD2 high voltage servo drive



- 高性能电机控制 High performance motor control
- 提供多种反馈接口 Multiple feedback interfaces
- 高功率密度 High power density
- 位置比较输出模块 Position comparison output module
- 1D 误差纠正补偿表 1D error correction and compensation table
- 安全转矩关闭功能 (STO) Safe Torque Off (STO)
- 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 to minimize position error and shorten positioning time to about zero
- CE、RoHS 认证 CE and RoHS certified

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	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
LDHD2-0124DEC	380/440VAC	单 / 三相 1ph/3ph	12	36	
LDHD2-0184DEC			18	54	
LDHD2-0244DEC			24	72	

产品选型配置
Product selection and configuration

		接口配置 Interface configuration
调试口	Debugging port	USB
STO		默认 Default
分频输出	Frequency division output	支持 Supported
数字量输入	Digital input	输入 4，快速输入 24 inputs, including 2 high-speed inputs
数字量输出	Digital output	输出 4，快速输出 14 outputs, including 1 high-speed output
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 via IO
		控制模式 Control mode
控制模式	Control mode	EtherCAT 总线，脉冲 EtherCAT bus, pulse
		控制特性 Control characteristics
龙门同步功能	Gantry synchronization	不支持 , Not Supported
位置比较输出功能	Position comparison output	支持，一路输出 Supported,1 outputs
探针功能	Touch probe	支持，两路输入 Supported,2inputs

CD3E



温度 Temperature	0° C 至 45° C，无需降额，45° C 至 55° C，需降额存储温度 :-20° C 至 70° C Operating te mperature: 0° Cto 45° C (no deratingrequired),or 45° Cto 55° C (derating required);storage te mperature: -20° Cto 70° C
湿度 Humidity	湿度 :10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级 :IP20，污染程度 :IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree:IEc 60664-1, Leve 12

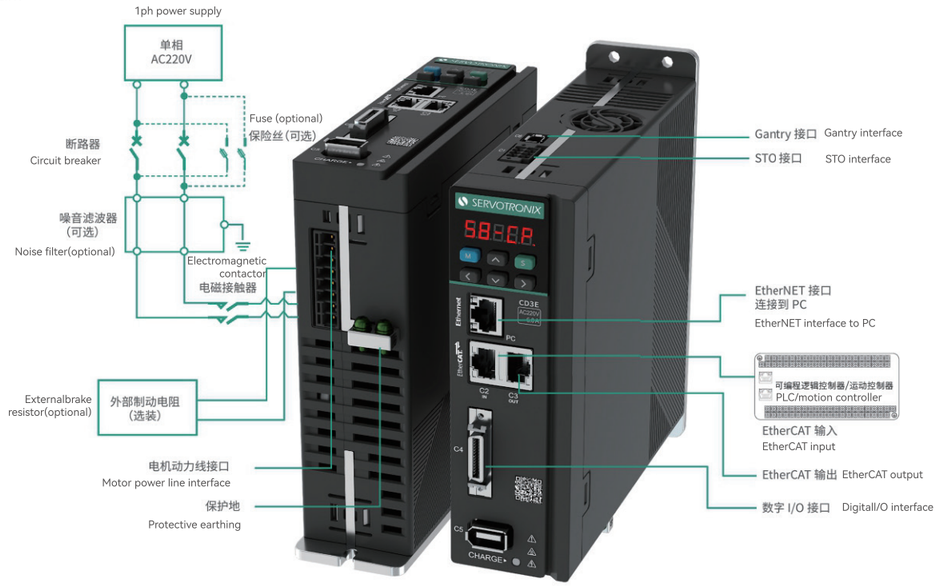
版本 : 总线版本 EtherCAT、脉冲版本、模拟量版本
Version: EtherCAT bus version, pulse version, analog version

Ai 助手
AIAssistant
动态制动
Dynamic brake

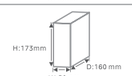
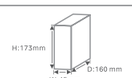
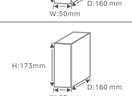
紧急制动
Emergency brake
飞车保护
Runaway protection

飞拍 PCOM*、探针 *、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)
Flying cam PCOM*, touch probe*, error compensation,collision detection*, input shaping, frequency analyzer,variable gain, and field weakening*(* indicates functions that 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	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
CD3E-0032AEB0	120/240VAC +10%~-10%	单相 1ph	3	9	
CD3E-0062AEB0		单相 1ph	6	18	
CD3E-0032AAP0		单相 1ph	3	9	
CD3E-0062AAP0		单相 1ph	6	18	
CD3E-0032AAP1		单相 1ph	6	18	
CD3E-0032AAP1		单相 1ph	6	18	

产品选型配置
Product selection and configuration

		接口配置 Interface configuration	
调试口	Debugging port	EtherNET 以太网 192.168.57.60	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 factor fixed at 1, with output pulse frequency the same as the encoder input pulse frequency (direct output)
数字量输入	Digital input	7 路，两路快速输入	7 channels, including 2 fast input channels
数字量输出	Digital output	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 via 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	不支持，Not Supported	
位置比较输出功能	Position comparison output	支持，一路输出 Supported,1 outputs	
探针功能	Touch probe	支持，两路输入 Supported,2inputs	

CDHD(海外版) CDHD (overseas edition)

直线伺服
Linear servo 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° C to 45° C, storage temperature 0° C to 70° C
湿度 Humidity	湿度：10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级：IP20，污染程度：IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree: IEC 60664-1, Level 2

可对所有永磁伺服电机进行高性能控制
High performance control for all permanent magnet servo motors

支持多种反馈设备
Compatible with 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
Advanced control algorithms for secured precision and optimal productivity

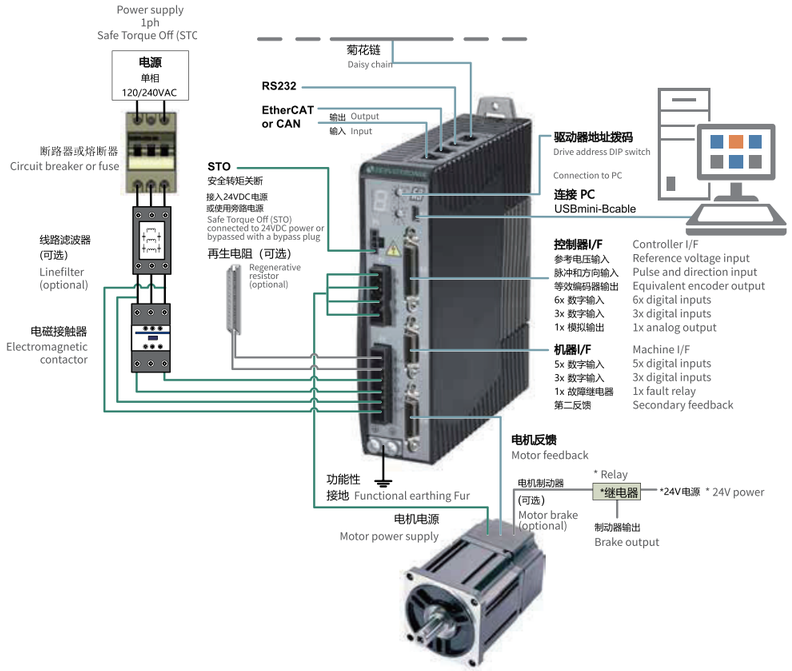
外形小巧，占地空间小
Compact design with a small footprint

安全扭矩关断 (STO)
Safe Torque Off (STO)

可快速修改固件以满足特定的应用需求
Quick firmware modification to meet specific application needs

CE RoHS cULus
符合 CE、ROHS、STO、UL、semi F47 认证
CE, RoHS, STO, UL, and SEMI F47 certified

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	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
CDHD-1D5	120/240VAC +10%~-10%	单相 1ph	1.5	4.5	H:150mm W:43.2mm D:143.7 mm
CDHD-003		单相 1ph	3	9	
CDHD-4D5		单相 / 三相 1ph/3ph	4.5	18	H:150mm W:54.7mm D:167.4 mm
CDHD-006		单相 / 三相 1ph/3ph	6	18	
CDHD-008		三相 3ph	8	28	H:170mm W:61.8 mm D:181.6 mm
CDHD-010		三相 3ph	10	28	
CDHD-013		三相 3ph	13	28	
CDHD-020	380/480VAC +10%~-10%	三相 3ph	20	48	H:233.8mm W:117.4 mm D:193.5 mm
CDHD-024		三相 3ph	24	48	
CDHD-003		三相 3ph	3	9	H:162.8mm W:110 mm D:193.1 mm
CDHD-006		三相 3ph	6	18	
CDHD-012		三相 3ph	12	24	H:234mm W:117.4 mm D:193.5 mm
CDHD-024		三相 3ph	24	72	H:353mm W:149.1 mm D:200.9 mm
CDHD-030		三相 3ph	30	90	

产品选型配置
Product selection and 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	Supported
数字量输入	Digital input	11 路，三路快速输入	11 channels, including 3 fast input channels
数字量输出	Digital output	6 路，两路快速输出	6 channels, including 2 fast output channels
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 via 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	不支持	Not supported
位置比较输出功能	Position comparison output	不支持	Not supported
探针功能	Touch probe	支持	Supported

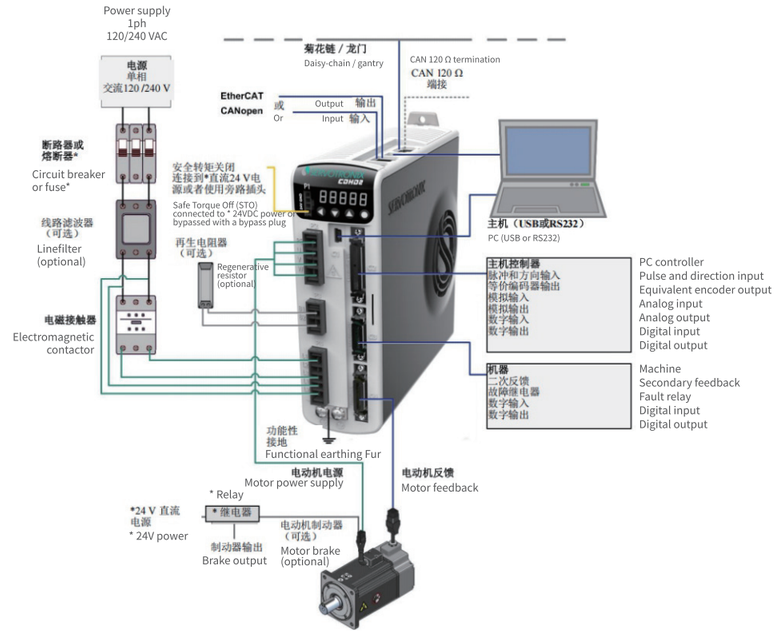
CDHD2(海外版) CDHD2 (overseas edition)



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° C to 45° C, storage temperature 0° C to 70° C
湿度 Humidity	湿度：10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级：IP20，污染程度：IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree: IEC 60664-1, Level 2

- 高性能控制所有永磁伺服电机 High performance control for all permanent magnet servo motors
- 提供多种反馈装置接口 Multiple feedback interfaces
- 双闭环控制的第二编码器接口 Second encoder interface for dual closed-loop control
- 内置驱动器配置和诊断的操作面板 Built-in control panel for drive configuration and diagnostics
- 内置支持刚性和柔性龙门系统 Built-in rigid and flexible gantry systems
- 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 符合 CE、RoHS 认证 (* 部分型号支持 STO 及 UL 认证) CE and RoHS certified (*STO and UL certifications supported on select models)

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	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
CDHD2-003	20-90 VDC	单相 1ph	3	9	
CDHD2-006		单相 1ph	6	18	
CDHD2-012		单相 1ph	12	24	
CDHD2-015		单相 1ph	15	30	
CDHD2-1D5		单相 1ph	1.5	4.5	
CDHD2-003		单相 1ph	3	9	
CDHD2-4D5		单相 / 三相 1ph/3ph	4.5	18	
CDHD2-006	120/240VAC +10%~-10%	单相 / 三相 1ph/3ph	6	18	
CDHD2-008		三相 3ph	8	28	
CDHD2-010		三相 3ph	10	28	
CDHD2-013		三相 3ph	13	28	
CDHD2-020		三相 3ph	20	60	
CDHD2-024		三相 3ph	24	72	
CDHD2-033		三相 3ph	33	130	
CDHD2-044		三相 3ph	44	130	
CDHD2-055		三相 3ph	55	130	

产品选型配置
Product selection and 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	Supported
数字量输入	Digital input	11 路，三路快速输入	11 channels, including 3 fast input channels
数字量输出	Digital output	6 路，两路快速输出	6 channels, including 2 fast output channels
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 via 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	不支持	Not supported
位置比较输出功能	Position comparison output	不支持	Not supported
探针功能	Touch probe	支持	Supported

典型行业应用
Typical industry applications

3C 行业 3C 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

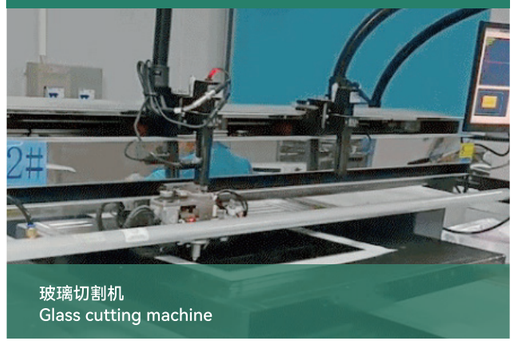
> CDHD-30A HV(400V)+3rd DDR-> High-speed precision rotary table
> CDHD2(full closed-loop)+PRHD2->Printing deviation correction
> 6-axis/12-axis DC drive (custom)->Paper roll platform
> CDHD2(force control)+PRHD2->Constant pressure printing
> EtherCAT communication
> 24 axes per device

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 μm

玻璃行业 Glass



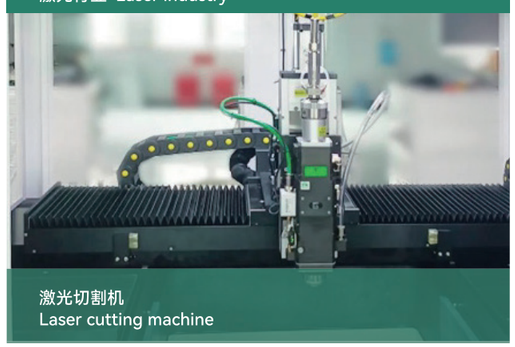
玻璃切割机
Glass cutting machine

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 a preliminary and frequently used process in the deep processing of glass. However, the fragile nature of glass often presents many challenges during processing, such as cracking and rough edges. To address these issues, the glass cutting machine employs diamond saws for cutting based on the low tensile strength of glass, achieving high production efficiency, low production cost, high cutting quality, and precision cutting motion.

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 ±10 μm 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 a glass cutting machine is closely related to the performance of its drives and motors. Servotronix's CDHD drive, when applied to a glass cutting machine, coordinates with the motor to drive the cutting motion in X, Y, and R axes, effectively achieving precision cutting.
Solution for “pain points”: In the application in the glass cutting machine, the CDHD drive can keep the diagonal error within ±10 μm and meet the customer's process requirements for the cutting error of straight lines and circular arcs with a diameter of 3MM. The key to debugging is to minimize the PE fluctuation of the X/Y axis trajectory motion, ensuring that the glass cutting motion is “completed in one step.” While delivering “fast, stable, and precise” motion, the CDHD drive also offers higher cost-effectiveness, bringing 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
The gantry laser cutting machine, with its gantry structure, offers fast cutting speed, narrow kerf, small heat-affected zone, good kerf verticality, and smooth cutting edges. At the same time, laser cutting is applicable for a wide variety of materials. The gantry design overcomes the inherent limitations of load, speed, reach, and repeated accuracy, offering excellent flexibility.

技术难点 Technical challenges

> 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。

> Fast response: When the gantry laser cutting machine is in motion, the CDHD2 servo system is frequently starting, stopping, accelerating, and decelerating. To improve production efficiency and processing quality, the linear motor marble platform solution is developed, which can increase the speed to 1 m/s and acceleration/deceleration to 1G according to the customer's actual needs.
> High precision: To meet the accuracy requirements of gantry laser cutting, it is crucial to ensure the positioning accuracy and repeated accuracy of the machine. The CDHD2 servo gantry system features the positioning compensation to achieve high precision.
> Key indicators of precision are described as follows: accuracy of CDHD2 linear motor gantry marble platform before compensation: main axis side: bidirectional, positioning accuracy 24.0um, repeated accuracy 1.5um; secondary axis side: bidirectional, positioning accuracy 17.0um, repeated accuracy 2.0um; accuracy of CDHD2 linear motor gantry marble platform after compensation: main axis side: bidirectional, positioning accuracy 2.3um, repeated accuracy 1.4um; secondary axis side: bidirectional, positioning accuracy 2.5um, repeated accuracy: 1.1um.
> The CDHD2 linear motor gantry servo solution adopts the HD control algorithm, ensuring a main axis positioning accuracy of 2.5um, a tuning time of 0ms, and a main/secondary axis deviation of 1.2um, which are far superior to other control algorithms.
> High-precision cutting: For circular arc cutting trajectories with a diameter of 5mm/3mm, the accuracy is within 10um with stable consistency, meeting industry standards.

LDHD2

直线伺服
Linear servo drive



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

支持直驱直线电机，直驱旋转电机控制
Compatible with direct drive linear motors and direct drive rotary motors for control

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

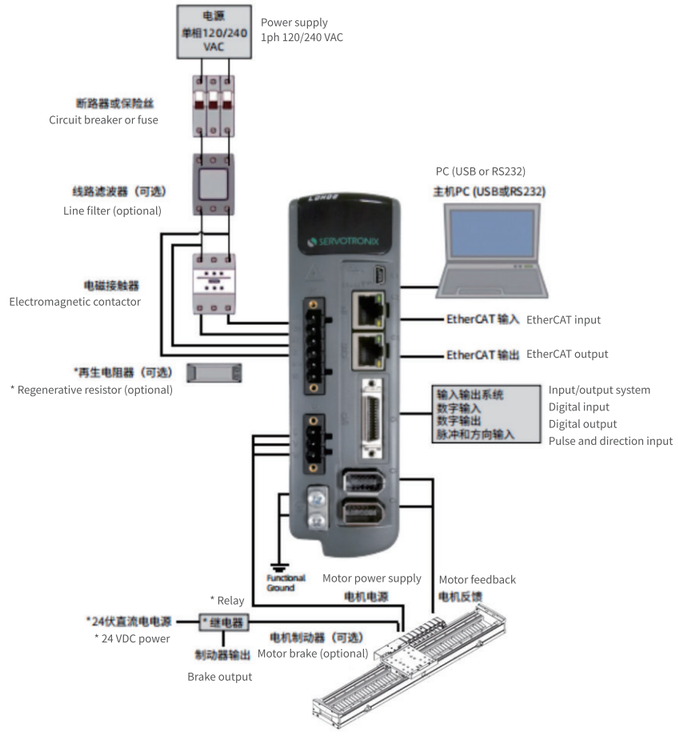
5kHz 电流环路带宽
5 kHz current loop bandwidth
支持差分脉冲控制
Differential pulse control

支持在线使能，控制模式切换
Online enable and control mode switching

符合 CE、RoHS 认证
CE and RoHS certified

温度 Temperature	工作温度为 0-55°C，存储温度 0-70°C Operating temperature: 0°C to 55°C , storage temperature: 0°C to 70°C
湿度 Humidity	湿度：10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级：IP20，污染程度：IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree: IEC 60664-1, Level 2

接线图
Wiring diagram



产品规格参数
Product specifications

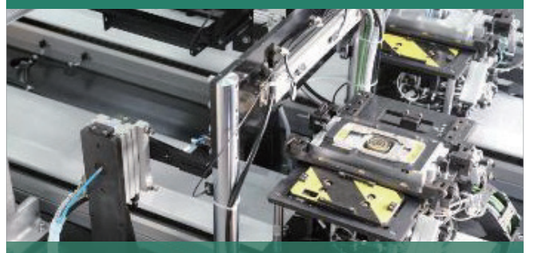
产品型号 Product model	输入电压 Input voltage	输入电压 Input voltage	输入电压 Input voltage	输入电压 Input voltage	输入电压 Input voltage	输入电压 Input voltage	输入电压 Input voltage	输入电压 Input voltage	宽 x 高 x 深 Dimensions (width × height × depth)
LDHD2-0032AEC	单相 240 L-N VAC, +10%-15% 1ph 240 L-N VAC, +10%-15%		50/60	3	9	2	8/16	0-55	
LDHD2-0062AEC				6	18				

产品选型配置
Product selection and 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 Supported
数字量输入	Digital input	6 路 6-channel
数字量输出	Digital output	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	不支持 Not supported
位置比较输出功能	Position comparison output	不支持 Not supported
探针功能	Touch probe	支持 Supported

典型行业应用
Typical industry applications

3C 行业 3C industry



点胶机
Dispensing machine

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
In applications with high requirements for performance, such as high acceleration/deceleration and max speed, the LDHD2 servo drive is recommended

核心工位 Core station

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

性能表现 Performance

> 可使点胶机实现高速、高性能及轨迹运动
> 点胶精度实测 0.015mm
> High speed, high performance, and trajectory-followed motion of dispensing machine
> Measured dispensing accuracy of 0.015 mm

CDHDE

直线伺服
Linear servo drive



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

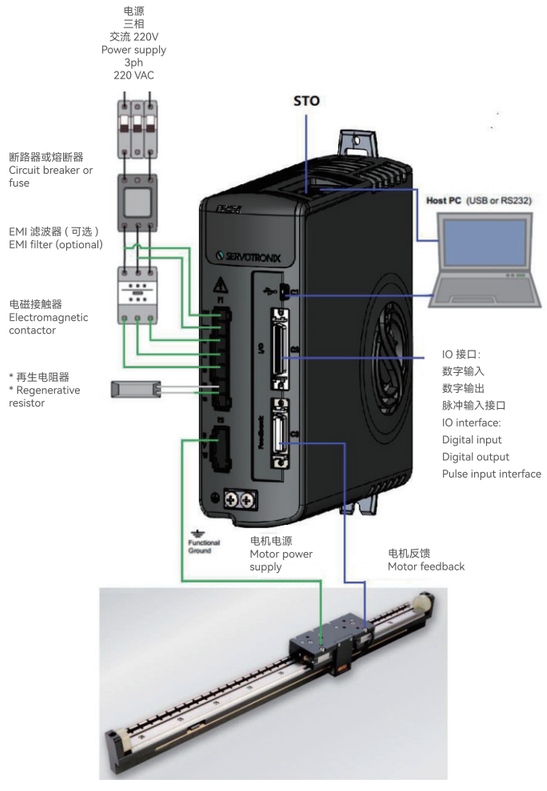
支持刚性表调试方法，方便把位置误差和整定时间最小化
Rigidity table-based debugging adopted to minimize position error and tuning time

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
Position compensation available, which eliminates the influence of cumulative encoder errors through multi-segment position deviation correction

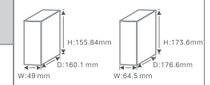
符合 CE、RoHS 认证
CE and RoHS certified

温度 Temperature	工作温度为 0-45°C，存储温度 -20-70°C Operating temperature: 0° C to 45° C, storage temperature: -20° C to 70° C
湿度 Humidity	湿度：10%~90% Humidity: 10%~90%
防护等级 Protection rating	保护等级：IP20，污染程度：IEC60664-1 标准 2 度 Protection rating: IP20; pollution degree: IEC 60664-1, Level 2

接线图
Wiring diagram



产品规格参数
Product specifications

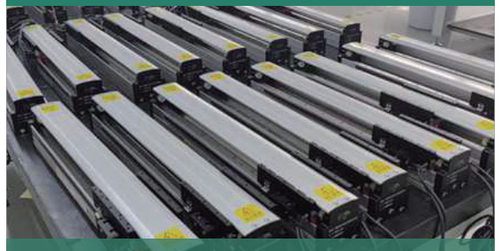
产品型号 Product model	输入电压 Input voltage	主电路输入电源 Main circuit input power supply	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
CDHDE-4D52A	220	单相 1ph	4.5	18	
CDHDE-0102A	220	单相 1ph	10	30	

产品选型配置
Product selection and configuration

		接口配置 Interface configuration
调试口	Debugging port	USB
STO		无，特定版本支持 None, supported by specific versions only
分频输出	Frequency division output	仅 AP 版本 AP version only
数字量输入	Digital input	普通 4 路 (AP)、3 路 (EB)，高速 2 路 4 AP channels, 3 EB channels, 2 fast channels
数字量输出	Digital output	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	不支持 Not supported
位置比较输出功能	Position comparison output	不支持 Not supported
探针功能	Touch probe	支持 Supported

典型行业应用
Typical industry applications

通用行业 General industries



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
This product is suitable for all automated applications that involve point-to-point motion but have no in-process precision requirements

核心工位 Core station

> 经济型直线电机驱动器产品
> 支持简单刚性表调试方法
> 支持位置补偿
> 支持增量式 ABZ 编码器、BISS-C

> Cost-effective linear motor drive
> Simple rigidity table-based debugging
> Position compensation
> Incremental ABZ encoder and BISS-C

性能表现 Performance

> 定位精度 <0.005/160mm
> 重复精度 +-1um

> Positioning accuracy <0.005/160mm
> Repeated accuracy +-1um

LVD2

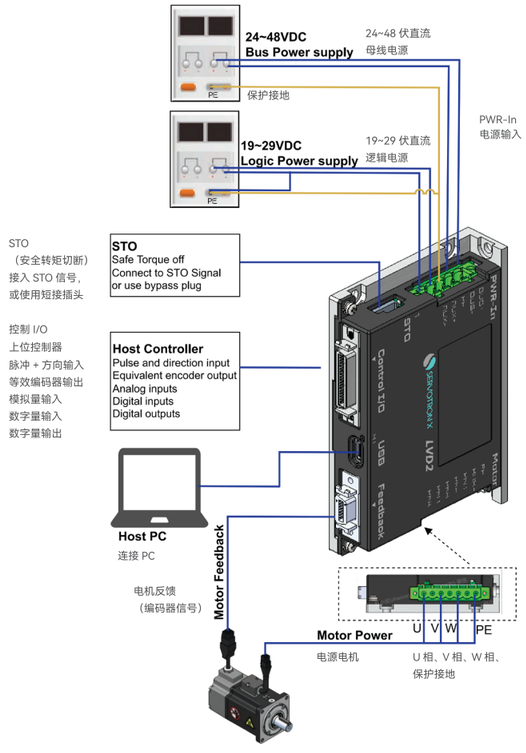
低压伺服
Low-Voltage Drive



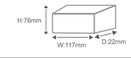
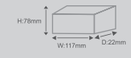
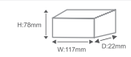
- 高功率密度 · 超小体积
  High power density · ultra-compact size
- 多反馈接口支持
  Multiple feedback interfacessupported
- 低压宽范围供电 24-48VDC
  Wide low-voltage range: 24–48 VDC
- EtherCAT 实时总线通讯
  EtherCAT real-time fieldbus communication
- 板载数字量与模拟量 I/O
  Onboard digital and analog I/O
- 安全转矩关闭 (STO)
  Safe Torque Off (STO)
- 高性能运动控制算法
  High-performance motion control algorithms
- 符合 CE、RoHS 认证
  CE and RoHS certified

温度 Temperature	运行环境温度: 0–45°C (不降额) ;45–55°C (每升高 1°C输出降额 4%) , 存储温度: -20–70°C Operating ambient temperature: 0–45°C (no derating); 45–55°C (output derating by 4% for every 1°C rise), Storage temperature: -20–70°C
湿度 Humidity	10–90%RH（不结露） 10–90%RH (non-condensing)
防护等级 Protection rating	IP20，污染等级：2（符合 IEC 60664-1） IP20, Pollution degree: 2 (compliant with IEC 60664-1)

接线图
Wiring diagram



产品规格参数
Product specifications

产品型号 Product model	功率电路输入电压 Power circuit input voltage	控制电路输入电压 Control circuit input voltage	连续电流 Continuous current	峰值电流 Peak current	宽 x 高 x 深 Dimensions (width × height × depth)
LVD2-001□□	24-48 VDC	19-29VDC	1.15	3.45	
LVD2-003□□	24-48 VDC	19-29VDC	3	9	
*LVD2-006□□	24-48 VDC	19-29VDC	6	18	
*LVD2-010□□	24-48 VDC	19-29VDC	10	30	

□□：AP、AP1、EB、EC2
*：待上市 To be launched

产品选型配置
Product selection and configuration

接口配置 Interface configuration	
调试口 Debug Port	USB type-C
STO	默认 By Default
分频输出 Frequency Divider Output	支持
数字量输入 Digital input	7 路，含 2 路快速输入（AP/AP2） 7 channels, including 2 fast inputs (AP/AP2) 4 路含 2 路快速输入（EB/EC2） 4 channels, including 2 fast inputs (EB/EC2)
数字量输出 Digital output	5 路，含 2 路快速输出（AP/AP2） 5 channels, including 2 fast outputs (AP/AP2) 3 路，含 1 路快速输出（EB/EC2） 3 channels, including 1 fast output (EB/EC2)
模拟量输入 Analog input	2 路（仅 AP2/EC2 型号）2 channels (AP2/EC2 models only)
控制模式 Control mode	
控制模式 Control mode	EtherCAT 总线，脉冲，模拟量 EtherCAT bus, Pulse, Analog
操作模式 Operation modes	位置 / 速度 / 转矩 Position / Velocity / Torque
电子齿轮比 Electronic gearing ratio	支持 Supported

高创旋转伺服
功能对比

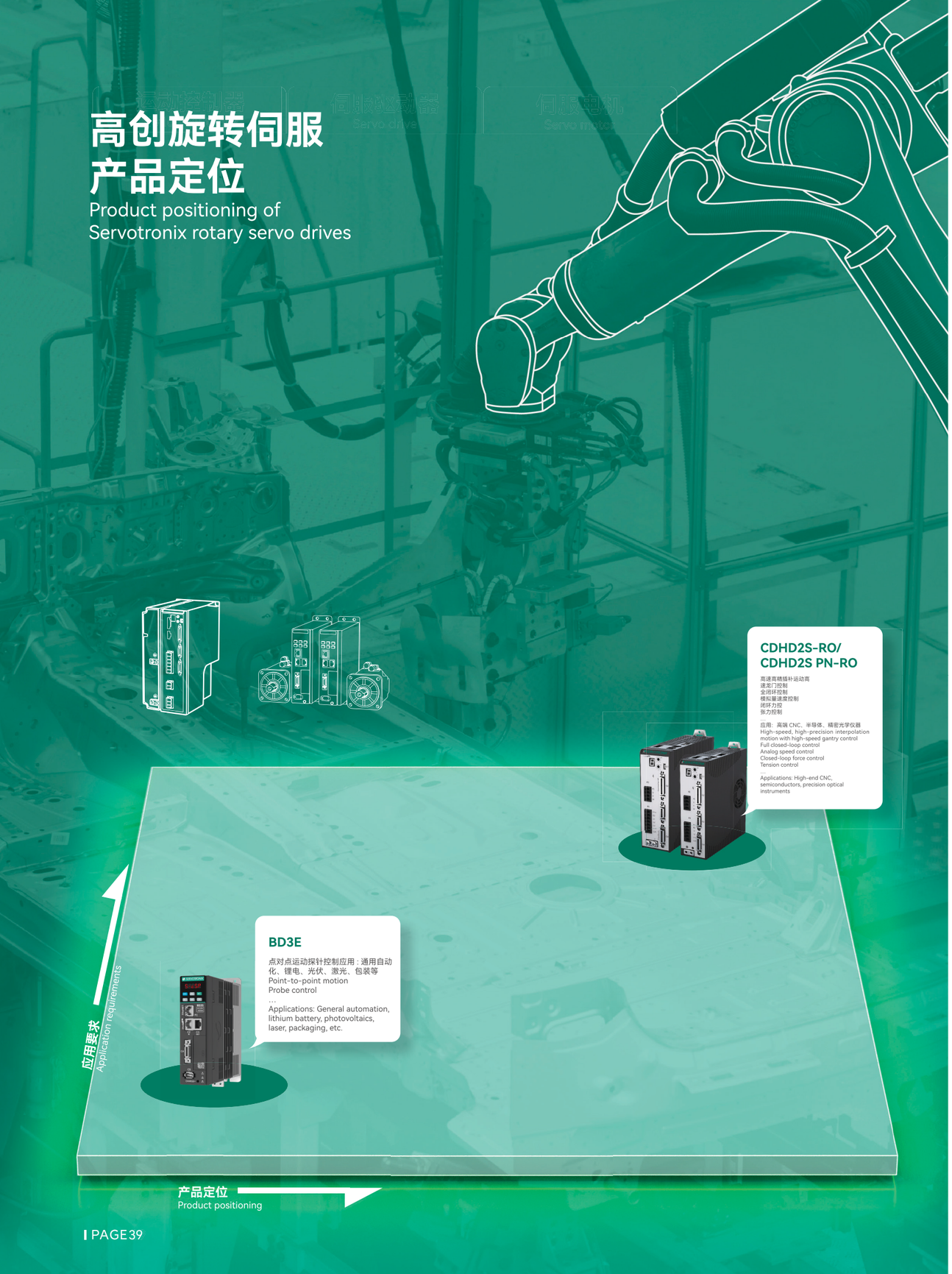
Function Comparison of Servotronix
Rotary Servo Drives

旋转伺服功能对比表
Rotary Servo Drive Function Comparison Table

产品配置 Product configuration	功能特性 Features	CDHD2S-RO 系列 CDHD2S-RO series	BD3E-EB	BD3E-AP2	BD3E-AP	DS3E	DS3P
配置与定位 Configuration and positioning	适配电机系列 Compatible motor series	PH3、P3 系列 PH3, P3 series	PH3、P3 系列 PH3, P3 series	PH3、P3 系列 PH3, P3 series	PH3、P3 系列 PH3, P3 series	DM3	DM3
	品牌 Brand	高创 Servotronix	高创 Servotronix	高创 Servotronix	高创 Servotronix	东菱 Dorna	东菱 Dorna
	产品定位 Product positioning	高性能、全功能 High-performance, rich functions	基础、总线 Basic, bus	基础、脉冲 Basic, pulse	基础、脉冲 Basic, pulse	经济、总线 Economical, bus	基础、脉冲 Basic, pulse
控制类型与接口说明 Control type and interface description	EtherCAT 总线 EtherCAT bus	√	√	×	×	√	×
	PROFINET 总线 PROFINET bus	√	×	×	×	×	×
	脉冲控制 Pulse control	√	×	√	√	×	√
	模拟量 Analog	√	×	√	×	×	×
	普通数字输入 Standard digital input	8	3	7	7	3	6
	普通数字输出 Standard digital output	6	3	5	5	3	4
	高速数字输入 High-speed digital input	3	2	0	0	2	0
	高速数字输出 High-speed digital output	2	0	0	0	0	0
	RS232/485 通讯 RS232/485 communication	√	×	√	√	×	√
	USB 通讯 (调试) USB communication (debugging)	√	×	×	×	×	×
	网线通讯 （调试） Ethernet communication (debugging)	×	√	×	×	√	×
特色功能 Special features	HD 控制 HD control	√	×	×	×	×	×
	龙门 Gantry	√	×	×	×	×	×
	全闭环 Full closed-loop	√	×	×	×	×	×
	PCOM	√	×	×	×	×	×
	误差补偿 Error compensation	√	×	×	×	×	×
	闭环压力控制 Closed-loop pressure control	√	×	×	×	×	×
	动态制动 Dynamic brake	√	√	√	√	√ (选配) √ (optional)	√ (选配) √ (optional)
安全与认证 Safety and certification	电机温度保护 Motor temperature protection	√	√	√	√	×	×
	STO	√	√	×	×	×	×
	RoHS 认证 RoHS certified	√	√	√	√	√	√
	CE 认证 CE certified	√	√	√	√	√	√
传感器协议 Sensor protocol	多摩川 17Bit Tamagawa 17-bit	√	√	√	√	√	√
	多摩川 23Bit Tamagawa 23-bit	√	√	√	√	√	√
	sensAR	√	×	×	×	×	×
	Biss-C	√	×	×	×	×	×
	尼康 Nikon	√	×	×	×	×	×
	Endat	√	×	×	×	×	×
	Hiperface	√	×	×	×	×	×
	ABZ	√	×	×	×	×	×
	霍尔 Hall	√	×	×	×	×	×

高创旋转伺服产品定位

Product positioning of
Servotronix rotary servo drives



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

1 CDHD2S servo drive - HD series

006

2 功率规格 Power rating

	120/240 VAC			400/480 VAC	
	连续电流 Continuous current [Arms]	峰值电流 Peak current [Arms]		连续电流 Continuous current [Arms]	峰值电流 Peak current [Arms]
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 380VAC/460VAC

2A

3 输入电源 Input power supply

符号 Mark	规格 Specification
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 1ph 120 L-N VAC +10%-15%50/60 HZ 1ph 240L-N VAC+10%-15%50/60HZ 3ph 120-240 L-LVAC +10%-15%50/60HZ
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 （仅适用于 60A）24 VDC 控制板供电 AC power input supply 3ph input 400L-LVAC+10%-15%50/60HZ 3ph input 480L-LVAC+10%-15% 50/60HZ 3ph input 460L-LVAC +10%-15% 50/60HZ(for 60A only) 24 VDC control board power supply

EC2

4 通讯接口 Communication interface

符号 Mark	规格 Specification	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
PN2	PROFINET，模拟电压，脉冲，USB，RS232 PROFINET, analog voltage, pulse, USB, RS232	2
	x= 1: 一个模拟输入，16 位两个模拟输入 one analog input, 16-bit x= 2: two analog inputs	* 标准配置 *Standard

RO

5 电机类型 Motor type

空 Blank	旋转伺服电机和直线电机 Rotary servo motors and linear motors
RO	仅旋转伺服电机 Rotary servo motors only

000

6 特殊标准 Special standards

空 Blank	标准 Standard

BD3 命名规则

BD3 naming rules

BD3 E - 2D8 2A EB - □□

1 2 3 4 5

E

1 驱动类型 Drive type

符号 Mark	规格 Specification
E	经济型 Economical version

2A

3 额定输入电压 Rated input voltage

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

□□

5 伺服驱动器系列 Servo drive series

符号 Mark	规格 Specification
[空白] [Blank]	标准型 Standard edition
ST	STO
BS	内置电阻 +STO Built-in resistor + STO

2D8

2 额定值 Rated value

符号 Mark	规格 Specification
	220V
1D6	持续 1.6Arms，最大 5.6Arms Continuous 1.6 Arms, max 5.6 Arms
2D8	持续 2.8Arms，最大 9.8Arms Continuous 2.8 Arms, max 9.8 Arms
5D5	持续 5.5Arms，最大 16.9Arms Continuous 5.5 Arms, max 16.9 Arms
7D6	持续 7.6Arms，最大 23Arms Continuous 7.6 Arms, max 23 Arms
012	持续 11.6Arms，最大 32Arms Continuous 11.6 Arms, max 32 Arms
	380V
3D5	持续 3.5Arms，最大 11Arms Continuous 3.5 Arms, max 11 Arms
5D4	持续 5.4Arms，最大 14Arms Continuous 5.4 Arms, max 14 Arms
8D4	持续 8.4Arms，最大 20Arms Continuous 8.4 Arms, max 20 Arms
012	持续 12Arms，最大 29.8Arms Continuous 12 Arms, max 29.8 Arms
017	持续 17Arms，最大 42Arms Continuous 17 Arms, max 42 Arms
021	持续 21Arms，最大 52Arms Continuous 21 Arms, max 52 Arms
026	持续 26Arms，最大 64.5Arms Continuous 26 Arms, max 64.5 Arms

EB

4 通讯口 Communication interface

符号 Mark	规格 Specification
EB	EtherCAT
AP	脉冲 Pulse version
AP2	脉冲 +2 路模拟量控制 Pulse + 2-channel analog control

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
The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

CDHD2S-RO

CDHD2S-RO Series

旋转伺服
Rotary servo drive



业界领先高带宽电流环路
Industry-leading high-bandwidth current loop

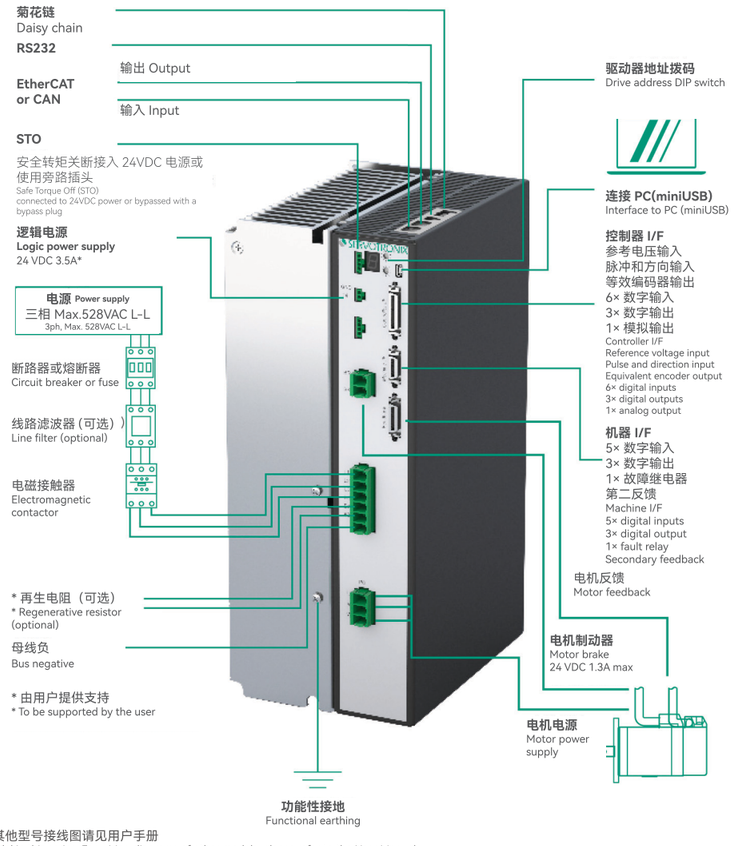
持久稳定，高规格用料
High-specification materials for high durability and stability

5KHz 频率响应
灵活应对高速高精需求
5 kHz frequency response
Flexible adaption to high-speed and high-precision demands

寿命 12 年以上
功耗器件测试寿命
Lifespan of over 12 years
Lifespan test for power consumption components

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
Comprehensive features, with one machine for multiple purposes including gantry, full closed-loop, PCOM, built-in error compensation, and closed-loop force control

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
This wiring diagram is for only one model in this series. For wiring diagrams of other models, please refer to the User Manual

CDHD2S-RO 功率规格与尺寸
CDHD2S-RO power specifications and dimensions

型号 Model	输入电压 (VAC) Input voltage(VAC)	主电路输入电源 Main circuit input power supply	连续电流 (Arms) Continuous current(Arms)	峰值电流 (Arms) Peak current (Arms)	宽（mm） Width（mm）	高（mm） Height (mm)	深（mm） Depth (mm)
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 specifications

特性 Features		CDHD2S-RO 规格 CDHD2S-RO specifications
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 motors)
	编码器 Encoder	23bit 单 / 多圈光电编码器 23-bit single/multi-turn optical 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 and encoder direction
操作模式 Operation mode	可选控制模式 Optional control modes	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, dual-loop control, gantry control
电流（转矩）控制 Current (torque) control	性能 Performance	更新速率 31.25μs(32KHz)，输出波形正弦波 Update rate 31.25μs (32KHz), output waveform: sine
	控制回路 Control loop	DQ、PI，前馈 DQ, PI, feedforward
	参考命令 * Reference command*	模拟直流电压 ±10V，串行 RS232 或 USB，EtherCAT Analog ±10VDC, serial RS232 or USB, EtherCAT
	自动调谐 Auto 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 Performance	更新速率 125μs(8kHz) Update rate 125μs (8kHz)
	参考命令 Reference command	模拟直流电压 ±10V，串行 RS232 或 USB*，EtherCAT Analog ±10VDC, serial RS232 or USB*, EtherCAT
位置控制 Position control	性能 Performance	更新速率 250μs(4kHz) Update rate 250μs (4kHz)
	控制回路 Control loop	PID 和前馈 PID + 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 pulse/direction, serial RS232 or USB, EtherCAT
HD 控制 HD control	性能 Performance	更新速率 125μs(8kHz) Update rate 125μs (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。 Non-linear control algorithm for smooth motion with low tracking error, zero or minimum settling time; Adaptive feedforward characteristic available, which is applied at the end of motion to achieve zero or minimum settling 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 One second-order low-pass filter, two notch filters, and other filters for handling 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 ±10VDC, serial RS232 or USB, EtherCAT Position: pulse train, serial RS232 or USB, EtherCAT
	自动调谐 Auto 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, automatic setting and optimization of HD control loop parameters.
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 for H-frame mechanical structures
制动器 Brake	方法 Method	控制制动，动态制动，电机机电制动。 Controlled brake, dynamic brake, and motor electromechanical brake
数码管 Digital tube	用户界面 GUI	7 段 LED（绿色），显示驱动器状态 7-segment LED (green), displaying drive status
GUI	用户界面 GUI	基于 windows 的 ServoStudio2 应用程序 Windows-based ServoStudio2
	功能 Features	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 Connection setting, drive information, power supply information, motor, feedback, I/O selection/configuration, motion setting/tuning, fault history/ display, setup wizard, expert view, etc.
运动单位 Motion units	位置 Position	转速、计数、度数 Revolutions, counts, degrees
	速率 Rate	Rps、rpm、deg/s Rps, rpm, deg/s
	加速 / 减速 Acceleration/deceleration	rps/s、rpm/s、deg/s2 rps/s, rpm/s, deg/s2

CDHD2S PN-RO

旋转伺服
Rotary servo drive



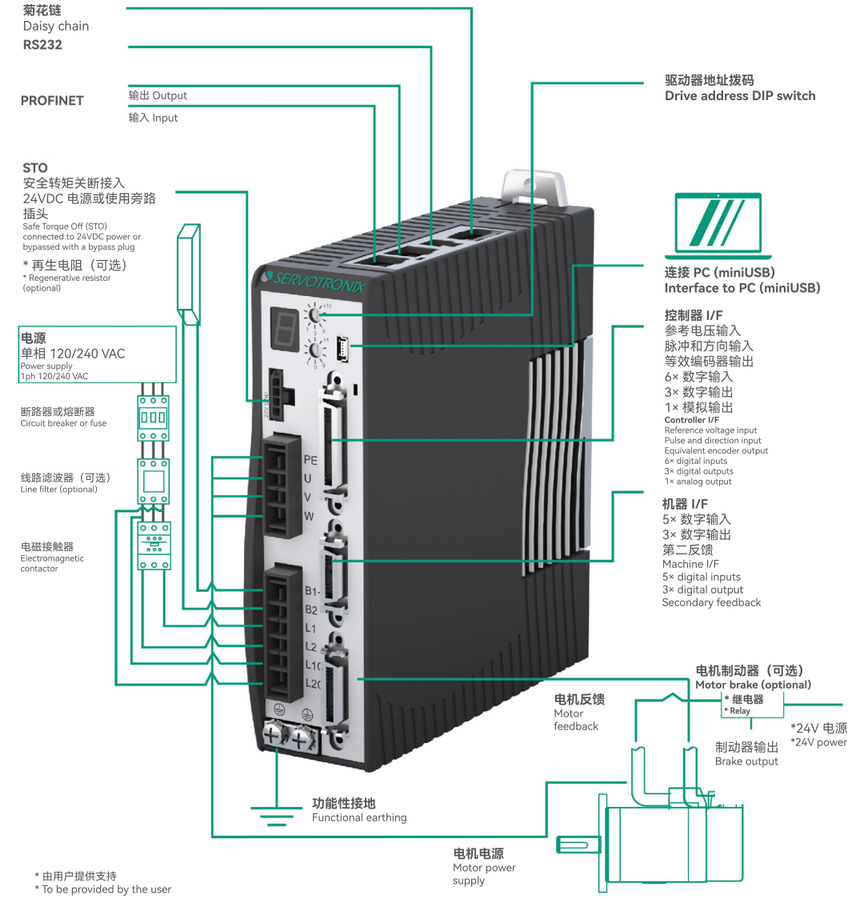
完整支持 PROFINET RT 及 IRT 通信
PROFINET RT and IRT communication

高带宽电流环路，业界领先
Industry-leading high-bandwidth current loop

高规格用料，持久稳定
High-specification materials for high durability and stability

功能全面，一机多能
Comprehensive features, with one machine for multiple purposes

接线图
Wiring diagram



通用规格
General specifications

特性 Features		CDHD2S PN-RO 规格 CDHD2S PN-RO specifications
电机 Motor	类型 Type	旋转伺服电动机（PH3、P3C、P3G 系列电机） Rotary servo motor (PH3, P3C, P3G series motors)
	编码器 Encoder	多圈光电编码器 Multi-turn optical 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 and encoder direction
操作模式 Operation mode	可选控制模式 Optional control modes	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, dual-loop control, gantry control
电流 (转矩) 控制 Current (torque) control	性能 Performance	更新速率 31.25μs(32KHz)，输出波形正弦波 Update rate 31.25μs (32KHz), output waveform: sine
	控制回路 Control loop	DQ，PI，前馈 DQ, PI, feedforward
	参考命令 * Reference command*	模拟直流电压 ±10V，串行 RS232 或 USB，PROFINET Analog ±10VDC, serial RS232 or USB, PROFINET
	自动调谐 Auto 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 Performance	更新速率 125μs(8kHz) Update rate 125μs (8kHz)
	参考命令 Reference command	模拟直流电压 ±10V，串行 RS232 或 USB*，PROFINET Analog ±10VDC, serial RS232 or USB*, PROFINET
位置控制 Position control	性能 Performance	更新速率 250μs(4kHz) Update rate 250μs (4kHz)
	控制回路 Control loop	PID 和前馈 PID + feedforward
	参考命令 * Reference command*	电子齿轮传动脉冲和方向，串行 RS232 或 USB，PROFINET Electronic gear pulse/direction, serial RS232 or USB, PROFINET
HD 控制 HD control	性能 Performance	更新速率 125μs(8kHz) Update rate 125μs (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 Non-linear control algorithm for smooth motion with low tracking error, zero or minimum settling time; adaptive feedforward characteristic available, which is applied at the end of motion to achieve zero or minimum settling 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 One second-order low-pass filter, two notch filters, and other filters for handling flexible and resonant systems
	参考命令 * Reference command*	速度：模拟直流电压 ±10V，串行 RS232 或 USB，PROFINET 位置：脉冲串，串行 RS232 或 USB，PROFINET Speed: analog ±10VDC, serial RS232 or USB, PROFINET Position: pulse train, serial RS232 or USB, PROFINET
	自动调谐 Auto 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, automatic setting and optimization of HD control loop parameters
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 for H-frame mechanical structures
制动器 Brake	方法 Method	控制制动，动态制动，电机机电制动 Controlled brake, dynamic brake, motor electromechanical brake
数码管 Digital tube	用户界面 GUI	7 段 LED（绿色），显示驱动器状态 7-segment LED (green), displaying drive status
GUI	用户界面 GUI	基于 windows 的 ServoStudio2 应用程序 Windows-based ServoStudio2
	功能 Features	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 Connection setting, drive information, power supply information, motor, feedback, I/O selection/configuration, motion setting/tuning, fault history/ display, setup wizard, expert view, etc.
运动单位 Motion units	位置 Position	转速、计数、度数 Revolutions, counts, degrees
	速率 Rate	rps、rpm、deg/s rps, rpm, deg/s
	加速 / 减速 Acceleration/deceleration	rps/s、rpm/s、deg/s2 rps/s, rpm/s, deg/s^2

型号 Model	输入电压 Input voltage (VAC)	主电路输入电源 Main circuit input power supply	连续电流 (Arms) Continuous current (Arms)	峰值电流 Peak current (Arms)	宽（mm） Width (mm)	高（mm） Height (mm)	深（mm） Depth (mm)	推荐匹配电机功率 Recommended motor power
CDHD2S-0032APN2-RO	220	单相 1ph	3	9	48.2	173	144.9	400W
CDHD2S-0062APN2-RO	220	单 / 三相 1ph/3ph	6	18	54.7	173	167.4	750W
CDHD2S-0102APN2-RO	220	单 / 三相 1ph/3ph	10	28	61.8	194.3	181.8	1.5KW
CDHD2S-0124DPN2-RO	380	三相 3ph	12	24	116.4	235.2	193.5	3KW
CDHD2S-0244DPN2-RO	380	三相 3ph	24	72	163.3	353	209.3	5.5KW
CDHD2S-0304DPN2-RO	380	三相 3ph	30	90	163.3	353	209.3	7.5KW
CDHD2S-0404DPN2-RO	380	三相 3ph	40	120	179.3	353	209.3	7.5-20KW
CDHD2S-0604DPN2-RO*	380	三相 3ph	60	180	330	610	310	20-37KW

BD3E EB 系列 (总线版 EtherCAT)
BD3E EB series (EtherCAT fieldbus)

旋转伺服
Rotary servo drive



开环力控
Open-loop pressure control

350% 峰值过载
350% peak overload

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

3.2kHZ 速度环响应带宽
3.2kHZ speed loop response bandwidth

搭配 20bit/23bit 绝对值编码器
20-bit/23-bit encoder
Absolute encoder

隐藏式电池仓，连接线整洁稳定
Concealed battery compartment for neat and secure cable connections

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
Separated strong and weak current design, significantly reducing unexplained faults caused by EMC issues

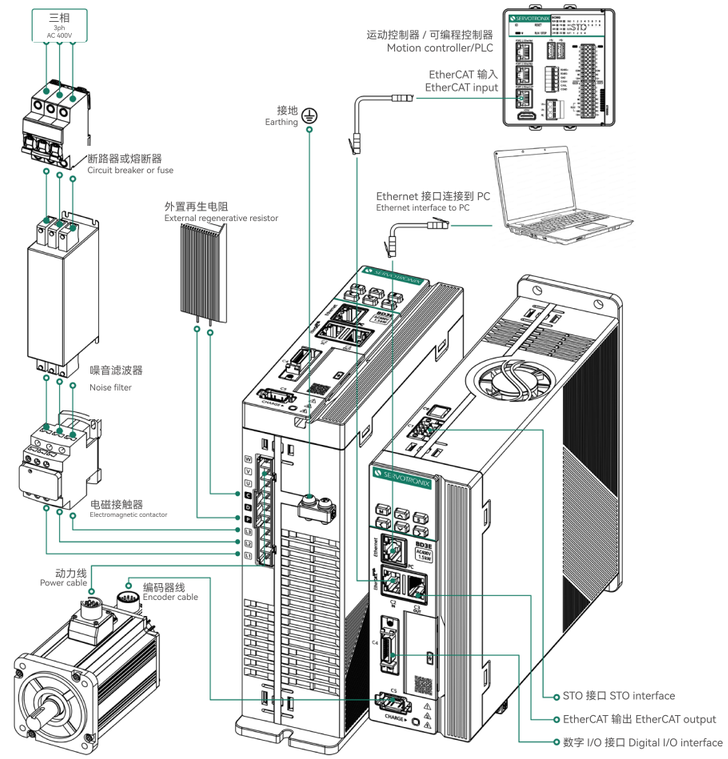
整定过程位移小，无振动 , 不会对物料造成损伤基于机械模型频域分析参数整定
Small displacement and no vibration during the tuning process, with no damage to materials
Parameter tuning based on mechanical model frequency domain analysis

六按键操控面板，减少操作步骤且手感舒适
6-key control panel with less operating steps and better operation comfort

专家模式，通过 HDM 扫频建模，让控制更加得心应手
Expert Mode available for more intuitive control through HDM frequency sweep modeling

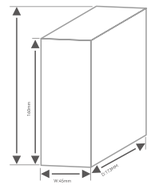
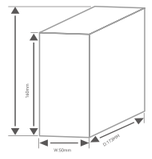
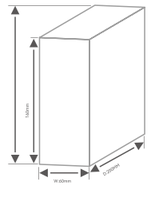
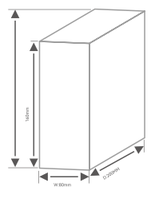
400W 可选内置再生电阻机型，减少电柜安装空间，持续过载性能显著提升
Built-in regenerative resistor optional for 400W model to reduce electrical cabinet installation space and significantly improve continuous overload performance

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
This wiring diagram is for only one model in this series.
For wiring diagrams of other models, please refer to the User Manual

BD3 系列功率规格与尺寸
BD3 series power specifications and dimensions

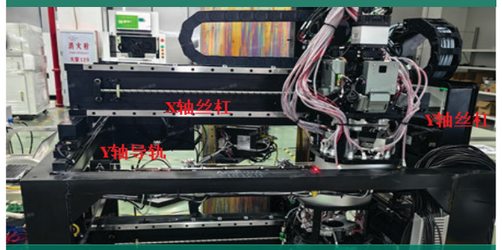
型号 Model	功率 Power	主电路输入电源 Main circuit input power supply	连续电流 (Arms) Continuous current(Arms)	峰值电流 (Arms) Peak current (Arms)	宽 X 高 X 深 Dimensions (width × height × depth)
BD3E-1D62AEB	200	1ph AC 200V-240V +10%~-10%，50/60Hz	1.6	5.8	
BD3E-1D62AEB-ST	200		1.6	5.8	
BD3E-2D82AEB	400		2.8	9.8	
BD3E-2D82AEB-ST	400		2.8	9.8	
BD3E-2D82AEB-BS	400		2.8	9.8	
BD3E-5D52AEB	750		5.5	16.9	
BD3E-5D52AEB-ST	750		5.5	16.9	
BD3E-7D62AEB	1000	1/3ph AC 200V-240V +10%~-10%，50/60Hz	7.6	23	
BD3E-7D62AEB-ST	1000		7.6	23	
BD3E-3D54DEB	1000	3ph AC 380V-440V +10%~-10%，50/60Hz	3.5	11	
BD3E-3D54DEB-ST	1000		3.5	11	
BD3E-5D44DEB	1500		5.4	14	
BD3E-5D44DEB-ST	1500		5.4	14	
BD3E-5D44DEB-ST	1500		5.4	14	
BD3E-0122AEB	1500	1/3ph AC 200V-240V +10%~-10%，50/60Hz	11.6	32	
BD3E-0122AEB-ST	1500		11.6	32	
BD3E-8D44DEB	2000	3ph AC 380V-440V +10%~-10%，50/60Hz	8.4	20	
BD3E-8D44DEB-ST	2000		8.4	20	
BD3E-0124DEB	3000		11.9	29.7	
BD3E-0124DEB-ST	3000		11.9	29.7	

BD3 系列通用规格
BD3 series general specifications

特性 Features		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 method	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 Performance	3.2kHz
	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, speed observer
	参考命令 Reference command	EtherCAT, VarCom
位置控制 Position control	性能 Performance	更新速率 125μs(8kHz) Update rate 125μs (8kHz)
	控制方式 Control method	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 brake, motor regenerative brake
用户交互 User interaction	操作面板 Control panel	6 位按键，LED 显示 6-key keypad, LED display
安全控制 * Safety control*	STO	选配 SAFE TORQUE OFF 安全转矩关断 Safe Torque Off (STO) (optional)
控制功能 Control functions	电机 Motor	弱磁控制算法 Field weakening 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 Standard digital input	通道数量 Number of channels	3
普通数字输出 Standard 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: Profile Position (pp), Cyclic Synchronous Position (csp)
		速度控制：轮廓速度控制 (pv)、周期速度控制 (Csv) Speed control: Profile Velocity (pv), Cyclic Synchronous Velocity (csv)
		转矩控制：轮廓转矩控制 (tq)、周期转矩控制 (cst) Torque control: Profile Torque (tq), Cyclic Synchronous Torque (cst)
		回零模式 (hm) Homing mode (hm)
		上述模式通过 EtherCAT 通信指令切换 Mode switching via EtherCAT communication commands
环境规格 Environmental specifications	保护功能 Protection functions	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 brake (hardware) undervoltage/overvoltage, overcurrent, drive and motor overtemperature protections
	合规 Compliance	CE 指令：EN61800-3,EN61800-5-1 CE Directives: EN61800-3, EN61800-5-1
		工作温度 0-45° C 不降额，45-55° C 降额 Operating temperature: 0° C to 45° C (no derating required), 45° C to 55° C (derating required)
		存储温度 -20 ~ 65° Storage temperature: -20° C to 65° C
	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。 Altitude: <1,000m, as per the spacing requirements specified in IEC 61800-5-1.
		振动：5.88m/s^2,10Hz-60Hz Vibration: 5.88 m/s^2, 10-60 Hz
		防护等级：IP20 Protection rating: IP20
	工作条件 Operating conditions	污染等级：IEC 60664-1 标准 2 级 Pollution degree: IEC 60664-1, 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 the product in an environment with corrosive or flammable gases, water, oil or chemicals, dust (including iron powder), and salt

典型行业应用
Typical industry applications

电子制作行业 Electronics Manufacturing Industry



锡膏检测设备
Solder paste detector

锡膏检测设备利用视觉技术，检测 PCB 电路板上焊锡膏的均匀性。设备为上下罩龙门结构，上下罩各具有 2 个控制自由度；其中，上罩 X 轴为横梁，采用旋转伺服驱动滚珠丝杆， Y 轴为单边龙门，采用旋转伺服驱动滚珠丝杆和导轨，横梁跨度 1200mm；下罩 A 轴为横梁，采用旋转伺服驱动滚珠丝杆，B 轴为单边龙门，采用旋转伺服驱动滚珠丝杆和导轨，横梁跨度 1200mm；下罩刚度明显比上罩刚度强。

The solder paste detector works to detect the uniformity of solder paste on PCBs via vision technologies. It features an upper and lower cover gantry structure, with each cover having 2 degrees of freedom in control. The X-axis of the upper cover is a crossbeam driven by a rotary servo motor and ball screw, and the Y-axis is a single-sided gantry driven by a rotary servo motor, ball screw, and guide rail, with a crossbeam span of 1200mm; the A-axis of the lower cover is a crossbeam driven by a rotary servo motor and ball screw, and the B-axis is a single-sided gantry driven by a rotary servo motor, ball screw, and guide rail, with a crossbeam span of 1200mm. The rigidity of the lower cover is significantly higher than that of the upper cover.

核心工位 Core station

控制系统：SC301、控制接口：EtherCAT、轴配置 ： 6 轴控制电机：PH2 系列伺服电机、驱动器：6*BD3S 驱动 +6* PH2 电机

Control system: SC301; control interface: EtherCAT; axis configuration: 6-axis control

Motor: PH2 series servo motor; drive: 6*BD3S drives + 6*PH2 motors

性能表现 Performance

丝杠螺距 20mm，重复定位精度 1um 定位，位置波动 <2um 满足上述定位精度同时，定位时间 <60ms

Ball screw pitch: 20mm, repeated positioning accuracy: 1um, position fluctuation: <2um.

Positioning time<60ms while the above positioning accuracy is met

通用行业 General Industry



六自由度平台
Six-degree-of-freedom platform

六自由度运动平台是由六支电动缸，上、下各六只万向铰链和上、下两个平台组成，下平台固定在基础上，借助六支作动筒的伸缩运动，完成上平台在空间六个自由度（X，Y，Z，α，β，γ）的运动，从而可以模拟出各种空间运动姿态

The six-degree-of-freedom motion platform consists of six electric actuator cylinders, six universal joints each on the upper and lower platforms, and two platforms (i.e. upper and lower platforms). The lower platform is fixed to the base, and through the telescopic movements of the six actuator cylinders, the upper platform can move in six degrees of freedom in space (X, Y, Z, α, β, γ), thus simulating various spatial motion attitudes.

核心工位 Core station

下平台伺服轴 *6 伺服响应速度快，灵敏度高，加速度可达 0.2g，重复定位精度在 10um 以内，长时间运行监控电机负载占比仅为 27%，运行可靠性高，噪音小。

Lower platform servo axes *6

Fast servo response, high sensitivity, acceleration up to 0.2g, repeated positioning accuracy within 10um; motor load ratio down to 27% during long-term operation monitoring, ensuring high operational reliability and low noise.

性能表现 Performance

高加速度：>0.1g、定位精度：<±0.01mm 重复定位精度：<±0.01mm、负载率：<70%

High acceleration: >0.1g; positioning accuracy: <±0.01mm

Repeated positioning accuracy：<±0.01mm; load rate: <70%

电子制作行业 Electronics Manufacturing Industry



固晶机
Die bonder

双邦头交替固晶，排列一致性好；6 个 6 寸晶圆环，一次装夹完成 RGB 三色固晶。控制方式：EtherCAT 总线。通信周期：1ms。自制控制器。生产周期：60ms,60k/h。

Dual bond heads for alternate die bonding, ensuring good alignment consistency; Six 6-inch wafer rings, able to complete RGB (three-color) die bonding in a single clamping. Control method: EtherCAT bus Communication cycle: 1ms. In-house controller. Production cycle: 60 ms, 60k/h.

核心工位 Core station

摆臂轴：2kw 安川伺服 180 度旋转固晶，固晶压力精准控制
摆臂 Z 轴：400W 高创 BD3E 伺服，高响应，高精度
顶针轴：100W 高创 BD3E 伺服，高响应，高精度
上下料轴：100W 高创 BD3E 伺服，300mm 距离，1s 往返
固晶工作台：直线电机 + 高创 CDHD2，直线十字工作台，高加速度，高响应
晶圆工作台：直线电机 + 高创 CDHD2，直线十字工作台，高响应，高精度

Swing arm axis: 2 kW Yaskawa servo motor for 180-degree rotational die bonding with precise bonding pressure control
Swing arm Z-axis: 400 W Servotronix BD3E servo drive, with high response and high precision
Ejector axis: 100 W Servotronix BD3E servo drive, with high response and high precision
Loading/unloading axis: 100 W Servotronix BD3E servo motor with a travel of 300 mm distance, and a round trip duration of 1s
Wafer stage: Linear motor + Servotronix CDHD2 drive, and a linear X-Y stage with high response and high precision
Wafer stage: Linear motor + Servotronix CDHD2 drive, and a linear X-Y stage with high response and high precision

性能表现 Performance

贴合位置精度：<±15 um、角度误差：< 3°
生产周期 60ms：60K/H @1.0 pitch

Bonding positional accuracy: <±15 um, angular error: < 3°
Production cycle 60ms: 60K/H @1.0 pitch

半导体行业 Semiconductor industry



倒装固晶机
Flip-chip die bonder

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。

The LED die bonder has 3 loading/unloading stations. It was previously equipped with a stepper motor, which has such shortcomings as low speed and high motor temperature rise, and cannot meet the UPH 60K requirement.

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

Axis: vertical transport axis, originally configured with a stepper motor

Structure: synchronous conveyor belt + Z-axis ball screw

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。

Travel: 300 mm; round trip duration: 1s; max motor speed: 3,000 rpm;
Temperature of motor at 25% load after 2 hours of continuous cyclic motion: stabilized at 36° C (at room temperature of 27° C);
Real-time motor positioning accuracy monitoring, ensuring fast and precise positioning.

典型行业应用
Typical industry applications

锂电行业 Lithium battery industry



锂电模切机
Lithium battery 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。

For lithium battery electrode plate cutting, the high-speed motor and cam combination mechanism enables the electrode plate to be cut stably at high speeds and high cycle rates, and after long-term operation, the motor temperature is stabilized at 43.5° C and the drive temperature at 38.5° C, with debugging performance and functions meeting 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: die-cutting axis

Structure: motor + cam structure, where circular motion is converted into vertical motion by the cam to cut the separators and electrode plates

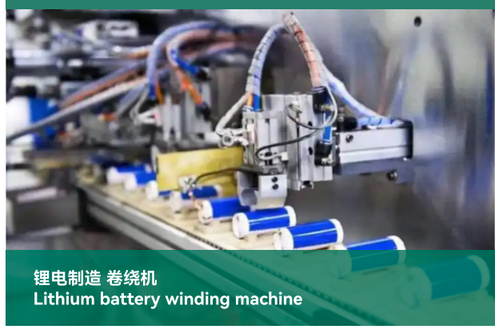
性能表现 Performance

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%。

Max motor speed 2,000 rpm

Motor speed at max cycle rate: about 930 rpm; monitored motor load rate: 35%.

锂电行业 Lithium battery industry



锂电制造 卷绕机
Lithium battery 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 plates and separators are continuously winded to form a lithium battery cell, using a circular or square winding mandrel 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

Winding mandrel axis, unwinding axis, plate feeding/cutter axis, pre-winding deviation correction axis

Winding mandrel axis: speed fluctuation to be controlled within ±2% during engagement with cam (for square winding, high requirements are posed for the speed stability and current fluctuation during acceleration and deceleration phases of prismatic cells turning at right angles)

Unwinding axis: switching between speed and torque modes (it primarily operates in speed mode, which poses high requirements for speed stability and servo bandwidth)

性能表现 Performance

张力波动 <=±3% 卷绕对齐度：±0.2mm1000mm/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: ±0.2 mm

Electrode plate cutting position accuracy at a flying shear speed of 1,000 mm/min: ±0.5 mm

Winding linear velocity fluctuation: < ±1%; max winding linear speed with a circular winding mandrel structure: 2,000 mm/s

BD3E AP/AP2 系列 (脉冲版)
BD3E AP/AP2 series (pulse version)

旋转伺服
Rotary servo drive



一键自整定
节省 90% 调试时间
One-click auto tuning
Debugging time reduced by 90%

350% 峰值过载
350% peak overload

双通道模拟量输入
一薄膜收卷张力速度双闭环
Dual-channel analog input
- dual closed-loop control for separator rewinding tension and speed

3.2kHZ
速度环响应带宽
3.2kHZ speed loop response bandwidth

搭配 20bit/23bit
绝对值编码器
20-bit/23-bit encoder
Absolute encoder

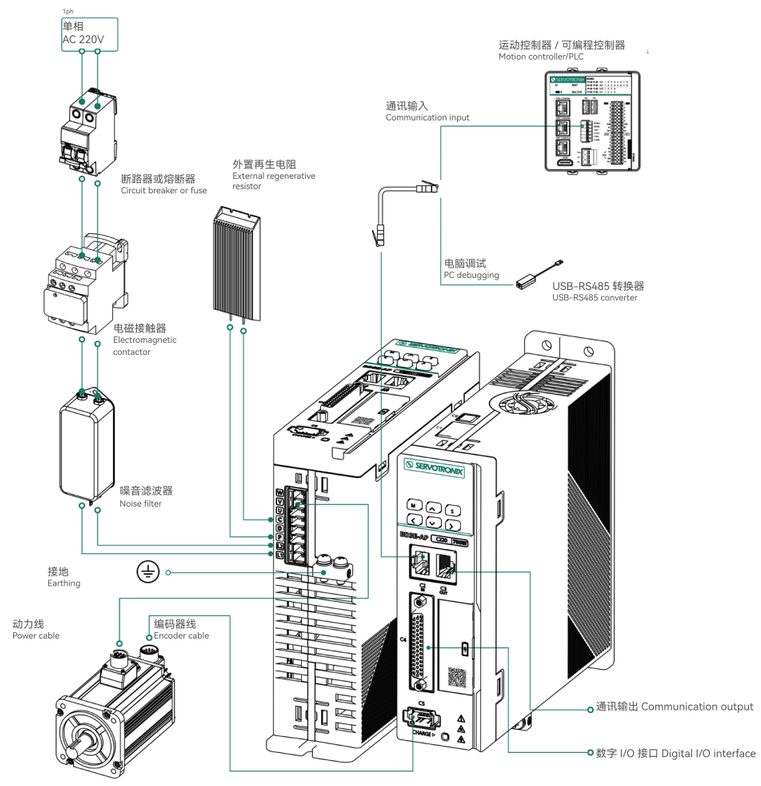
印刷套色偏差实时补偿
Real-time compensation for printing color registration deviation

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
Separated strong and weak current design, significantly reducing unexplained faults caused by EMC issues

主动式散热设计 + 三防涂层
抵御高温、高湿、多粉尘等恶劣应用环境
Active cooling design + three-proof coating to offer good adaptability to severe environments including high temperature, high humidity, and heavy dust

机械手力位混合控制，复杂工艺一驱搞定
Combined force-position control for robotic arms, enabling complex processes to be handled with a single drive

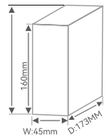
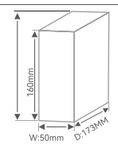
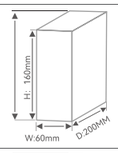
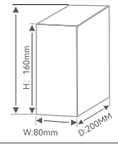
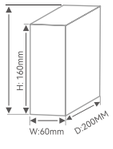
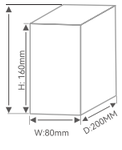
接线图
Wiring diagram



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

This wiring diagram is for only one model in this series. For wiring diagrams of other models, please refer to the User Manual

BD3E AP 系列功率规格与尺寸
BD3E AP series power specifications and dimensions

型号 Model	功率 Power	主电路输入电源 Main circuit input power supply	连续电流 (Arms) Continuous current (Arms)	峰值电流 (Arms) Peak current (Arms)	宽 X 高 X 深 Dimensions (width × height × depth)
BD3E-1D62AAP	200	1ph AC 200V-240V +10% ~ -10%, 50/60Hz	1.6	5.8	
BD3S-1D62AAP2	200		1.6	5.8	
BD3E-2D82AAP	400		2.8	9.8	
BD3S-2D82AAP2	400		2.8	9.8	
BD3E-5D52AAP	750		5.5	16.9	
BD3S-5D52AAP2	750		5.5	16.9	
BD3E-7D62AAP	1000	1/3ph AC 200V-240V +10% ~ -10%, 50/60Hz	7.6	23	
BD3S-7D62AAP2	1000		7.6	23	
BD3E-0122AAP	1500		11.6	32	
BD3S-0122AAP2	1500		11.6	32	
BD3E-3D54DAP	1000	3ph AC 380V-440V +10% ~ -10%, 50/60Hz	3.5	11	
BD3S-3D54DAP2	1000		3.5	11	
BD3E-5D44DAP	1500		5.4	14	
BD3S-5D44DAP2	1500		5.4	14	
BD3E-8D44DAP	2000		8.4	20	
BD3S-8D44DAP2	2000		8.4	20	
BD3E-0124DAP	3000		11.9	29.75	
BD3S-0124DAP2	3000		11.9	29.75	

BD3E AP 系列通用规格
BD3E AP series general specifications

基本规格 Basic specifications			BD3E-AP
控制方式 Control method			IGBT PWM 控制，正弦波电流驱动方式 IGBT PWM control, sine wave current drive method
性能 Performance	速度环频率响应 Speed loop frequency response		>3.0 kHz
	速度控制范围内 Within the speed control 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） 1:5000 (the lower limit of the speed control range is the condition where the motor does not stop under rated torque and load)
	速度波动率 Speed fluctuation rate	负载波动 Load fluctuation	0~100% 负载时：±0.5%（额定转速时） At 0~100% load: ±0.5% (at rated speed)
		电压波动 Voltage fluctuation	额定电压 ±10%：0.5%（额定转速时） Rated voltage ±10%: 0.5% (at rated speed)
		温度波动 Temperature fluctuation	25±25°C：±0.5% 以下（额定转速时） At 25±25°C: ±0.5% or less (at rated speed)
	转矩控制精度（再现性） Torque control accuracy (repeatability)		±2%
	软起动时间设定 Soft start time setting		0~10s（可分别设定加速与减速） 0~10 s (separate setting for acceleration and deceleration allowed)
	模拟量信号 Analog signal		2 点，12bit ADC，±10V 电压信号 2 points, 12-bit ADC, ±10V voltage signal
输入输出信号 Input & output signal	编码器分频脉冲输出 Encoder frequency division 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, with arbitrary frequency division
	顺控输入信号 Sequential control input signal	可分配的输入信号 Assignable input signal	7 点 7 points 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 正向驱动禁止输入（POT） Positive drive inhibit input (POT) 负向驱动禁止输入（NOT） Negative drive inhibit input (NOT) 偏差计数器清除输入（CLR） Deviation counter clear input (CLR) 报警清除（A-RST） Alarm reset (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 Assignment and positive/negative logic change supported for above signals
	顺控输出信号 Sequential control output signal	可分配的输出信号 Assignable output signal	5 点 5 points 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-pulse collector signal (CZ) 外部制动器解放信号（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 Assignment and positive/negative logic change supported for above signals
通讯功能 Communication function	485 通讯 RS-485 communication	1：N 通信 1: N communication	使用中继的情况下，最大可为 N=31 站 Max N=31 if a trunk is used
		轴地址设定 g Axis address setting g	通过参数设定 Setting via parameters
		连接设备 Connected devices	电脑，上位机 PC, upper computer
	电脑通讯 PC communication	通讯接口 Communication interface	RS485
显示按键功能 Display and key functions			LED 显示，6 个按键 LED display, 6-key keypad
动态制动器（DB） Dynamic brake (DB)			在主回路电源 OFF 伺服报警 伺服 OFF 超程（OT）时动作 Activation conditions: main loop power OFF; Servo alarm; Servo OFF; Overtravel (OT) Servo OFF;
再生处理 Regenerative processing			内置再生电阻器或外置再生电阻器 Built-in regenerative resistor or external regenerative resistor
超程（OT）防止功能 Overtravel (OT) protection			POT、NOT 输入动作时减速停止或者自由运行停止 Deceleration stop or coast-to-stop when POT or NOT is activated
保护功能 Protection functions			过电流、过电压、欠电压、过载、再生故障 Overcurrent, overvoltage, undervoltage, overload, regeneration fault
位置控制 Position control	前馈补偿 Feedforward compensation		0~100%（设定单位：1%） 0~100% (unit: 1%)
	定位完成宽度设定 Positioning complete width setting		0~65565 个编码器单位 0~65565 encoder units
	输入信号 Input signal	输入脉冲形态 Input pulse form	差分输入，集电极开路 Differential input, open collector
		最大输入脉冲频率 Max input pulse frequency	差分输入：高速最大 4Mpps，脉宽不能低于 0.125us 集电极开路：最大 200Kpps，脉宽不能低于 2.5us。 Differential input: Max 4 Mpps for high speed, pulse width ≥ 0.125 us Open collector: Max 200 Kpps, pulse width ≥ 2.5 us.
	清除信号 Clear signal		清除偏差脉冲集电极开路 Clear deviation pulse and open collector
	内部设定位置控制 Internal setting position control	位置选择 Position selection	使用 DI 信号组合实现第 0-15 段位置选择。（可设定其他端子为此功能） Selection of positions in segments 0-15 via DI signal combinations (this function can be set to other terminals)
速度控制 Speed control	输入信号 Input signal	指令电压 Command voltage	±10V
		输入阻抗 Input impedance	44KΩ
	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） 0~10 s (separate setting for acceleration and deceleration allowed)
		速度选择 Speed selection	使用外部 IO 信号输入选择 Selection via external IO signal input
转矩控制 Torque control	输入信号 Input signal	指令电压 Command voltage	±10V
		输入阻抗 Input impedance	44KΩ
	内部设定 Internal setting	转矩选择 Torque selection	使用外部 IO 信号输入选择 Selection via external IO signal input
其他功能 Other functions	减振控制 Vibration suppression control		具备高频、中频、低频三种特征频率共振抑制功能。 Suppression of resonance of high frequency, medium frequency, and low frequency
	自动调整 Auto tuning		具备 HDM/PDFF 增益调整方式。 HDM/PDFF gain adjustment
	自适应陷波滤波器 Adaptive notch filter		具有 5 个陷波器，50Hz~4000Hz，其中 2 个可自适应设置 5 notch filters of 50 Hz to 4000 Hz, 2 of which can be adaptively set

保护等级 Protection rating	防护等级：IP20 污染等级：IEC60664-12 级请勿在暴露于腐蚀性或易燃气体、水、油、化学品、灰尘（包括铁粉）和盐的环境中使用 IP20 Pollution degree: IEC 60664-1, Level 2 Do not use the product in an environment with corrosive or flammable gases, water, oil, chemicals, dust (including iron powder), and salt
工作温度 Operating temperature	0℃至 45℃，无需降额 0° C to 45° C (no derating required)
	45℃至 55℃，需降额 45° C to 55° C (derating required)
存储温度 Storage temperature	-20℃至 70℃ -20° C to 70° C
湿度 Humidity	10% 至 90%（无冷凝） 10% to 90% (non condensation)
海拔 Altitude	<1000m，根据 IEC61800-5-1 <1000 m, according to IEC 61800-5-1
振动 Vibration	10m/s², 10~150Hz
保护功能 Protection functions	包括但不限于：断电动态制动、低压 / 过压、过流、驱动器和电机过热、电机过载、驱动器过载、反馈丢失、参数未配置、电路故障。 Including but not limited to: Post-outage dynamic braking, undervoltage/overvoltage, overcurrent, drive and motor overtemperature, motor overload, drive overload, feedback loss, forgotten parameter setting, and circuit fault protections.

典型行业应用
Typical industry applications

轻工行业 Light Industry



植毛机
Hair planting machine

X.Y 轴，该部分为需要精度控制的部分，控制固定牙刷的运动，以及精度要求打孔的准确 A 轴，旋转固定的位置，以便下一个工件进入准备位置 S 轴，控制不同颜色的刷毛进入打孔位置 Z 轴，控制整个平台的前后移动，以便精确控制打孔的深度主轴，向同一方向转动，控制刷毛向牙刷工件植毛
Precision control is required for X and Y axes to manage the movement of the fixed toothbrush and ensure accurate hole punching. The A-axis rotates to allow the next workpiece to move into the ready position.
The S-axis controls the entry of hairs of different colors into the punched hole.
The Z-axis controls the front-to-back movement of the entire platform to precisely control the depth of the hole punching.
The main axis rotates in the same direction to control the planting of hairs onto the toothbrush.

核心工位 Core station
轴号：X.Y.Z.S，A，主轴
驱动器型号：BD3E-5D52AAP，BD3E-2D82AAP，BD3E-8D44DAP-ST
Axis No.: X.Y.Z.S, A, main axis
Drive model: BD3E-5D52AAP, BD3E-2D82AAP, BD3E-8D44DAP-ST

性能表现 Performance
植毛速度：最高要求 1000 孔 /min
位置精度：±0.05mm
Hair planting speed: Max 1000 holes/min Positioning accuracy: ±0.05mm

CNC 行业 CNC Industry



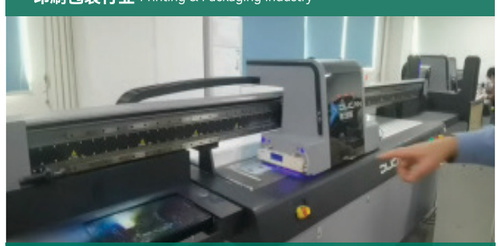
数控裁床
CNC cutting machine

通过电机驱动刀具做高频振动，利用振动的力量将材料切割开。适用于切割各种柔性材料，如皮革、布料、泡沫、橡胶等，切割精度较高，能够切割出复杂的形状和图案。
机架：高刚性铝合金 / 钢结构，确保切割稳定性。
振动刀头：高频振动（200-400Hz）刀片，通过垂直往复运动实现切割。
传动系统：多轴（X/Y/Z）滚珠丝杠驱动直线电机，精度达 ±0.1mm。
辅助系统：真空吸附台面、视觉定位、自动换刀模块。
Driven by the motor, the cutter vibrates at a high frequency to cut the materials. This machine is suitable for cutting various flexible materials, such as leather, fabric, foam, and rubber, with high cutting accuracy. It is also capable of cutting materials of complex shapes and patterns.
Frame: High-rigidity aluminum alloy/steel structure to ensure cutting stability.
Vibrating cutter head: high-frequency vibrating (200-400Hz) cutter that cuts materials through vertical reciprocating motions.
Transmission system: multi-axis (X/Y/Z) linear motor driven by a ball screw, with an accuracy of up to ±0.1mm.
Auxiliary systems: vacuum adsorption table, vision positioning system, and automatic tool change module.

核心工位 Core station
横移 X 轴：BD3E-2D82AAP+PH3 23 位绝对式伺服
横移 Y 轴：BD3E-2D82AAP+PH3 23 位绝对式伺服
振动刀上下轴：BD3E-2D82AAP+PM1 23 位绝对式伺服
振动刀旋转轴：BD3E-2D82AAP+PM1 23 位绝对式伺服
上下料轴：BD3E-5D52AAP+PH3 23 位绝对式伺服
Traverse X-axis: BD3E-2D82AAP + PH3 23-bit absolute servo
Traverse Y-axis: BD3E-2D82AAP + PH3 23-bit absolute servo
Vibrating cutter up-down axis: BD3E-2D82AAP + PM1 23-bit absolute servo
Vibrating cutter rotation axis: BD3E-2D82AAP + PM1 23-bit absolute servo
Loading/unloading axis: BD3E-5D52AAP + PH3 23-bit absolute servo

性能表现 Performance
重复定位精度≤ 0.01mm，确保复杂轮廓切割质量。
带宽≥ 500Hz，实现高速启停（加速度≥ 10m/s²），最大定位速度 100M/min 最大裁剪高度 80mm
满足上述定位精度同时，定位时间 <60ms
Repeated positioning accuracy ≤ 0.01 mm, ensuring the cutting quality for complex contours.
Bandwidth ≥ 500Hz, enabling high-speed start/stop (acceleration ≥ 10m/s²), a max positioning speed of 100M/min and a max cutting height of 80mm
Positioning time<60ms while the above positioning accuracy is met

印刷包装行业 Printing & Packaging Industry



UV 打印设备
UV printer

打印头位于横向 X 轴，一般使用直驱方案，定位依靠光栅解码器，支架使用双 Y 轴旋转伺服丝杆驱动，部分机型需要高度定位，在机头增加一个旋转伺服轴实现升降功能
The print head is located on the transverse X-axis, and generally adopts a direct-drive solution, with positioning relying on a grating decoder. The gantry is driven by dual Y-axis rotary servo motor and screw. For models that require height positioning, a rotary servo motor axis is additionally designed to the print head for lifting and lowering.

核心工位 Core station
丝杆：导程 5mm 直径 25mm 长 2m
惯量：0.00602 kgm2
全进料速度段范围内，转矩波动不超过 6%
稳定运行时，双 Y 轴累计位置误差值在 1um 以内
Screw: lead 5mm, diameter 25mm, length 2m
Inertia: 0.00602 kgm2
Torque fluctuation ≤ 6% within the full feed speed range
Cumulative dual Y-axes position error during stable operation: ≤ 1um

性能表现 Performance
陷波滤波器频率（Hz）：8000->622
指令平滑滤波器（ms）：0->10.0
模型跟踪：禁止 -> 使能
Notch filter frequency (Hz): 8000->622
Command smoothing filter (ms): 0->10.0
Model tracking: Disable->Enable

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 Series

标识字母 Mark	含义 Meaning
PX	smartPX 系列 smartPX series

6 2 轴数 Number of axes

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

A 3 功率规格 Power specifications

符号 Mark	轴数 Number of axes	连续电流 Continuous current (A rms)	峰值电流 Peak current (A rms)	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 class

标识字母 Mark	规格 Specification
2A	单相 220V，-10%~+10%，50/60 Hz 1ph 220V, -10%~+10%, 50/60 Hz
4D	三相 380V，-15%~+10%，50/60 Hz 3ph 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

RO 6 电机类型 Motor type

标识字母 Mark	规格 Specification
R	仅限旋转电机 For rotary motors only
L	支持直线电机 / 旋转电机… Linear motors/rotary motors...

ST 7 安全功能 Safety function

标识字母 Mark	规格 Specification
SA	仅限旋转电机 For rotary motors only
ST	支持直线电机 / 旋转电机… Linear motors/rotary motors...

M 8 反馈类型 Feedback type

标识字母 Mark	规格 Specification
M	支持 senseAR/Tamagawa 编码器 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 Not implemented

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
The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

smartPX 多合一驱动
SmartPX controller integrated with servo drive

多轴伺服
Multi-axis servo drive

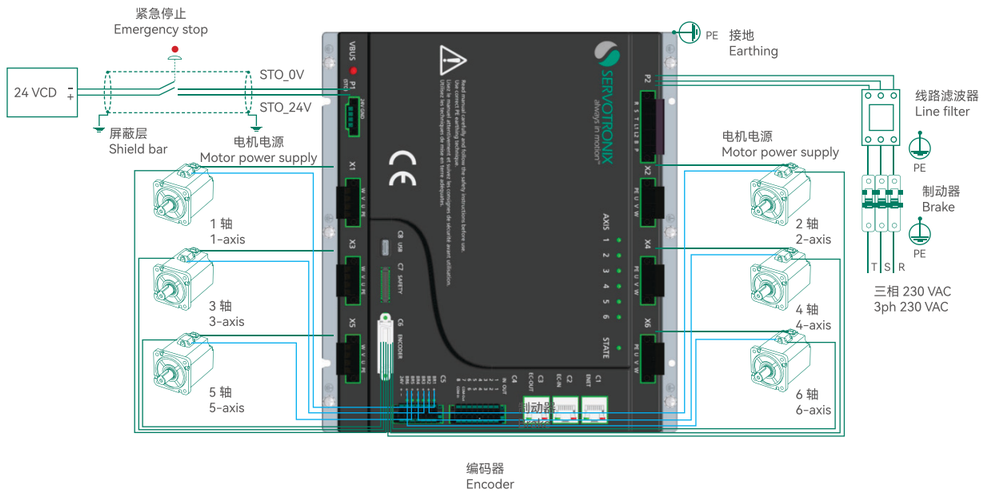


性能优异 : 基于模型的先进控制算法
Excellent performance: advanced model-based control algorithms

外形紧凑设计精巧 : 可以轻松融入任何工作空间
Compact and exquisite design: easy integration 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 use: modern network software, automated adjustment, advanced configuration tools, and rapid 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
This wiring diagram is for only one model in this series. For wiring diagrams of other models, please refer to the User Manual

功率规格与尺寸
Power specifications and dimensions

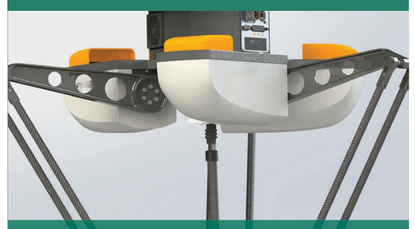
型号 Model	订货编码 Order No.	电压 (V) Voltage (V)	尺寸 (mm) Dimensions (mm)	轴数 Number of axes
PX-6A-2AEC-ROST-T-NN	10701090000421	220V	260×230×82	6 轴 6-axis
PX-4B-2AEC-ROST-T-NN	10701090000621	220V	260×230×82	4 轴 4-axis

通用规格
General specifications

接口配置 Interface configuration	
调试口 Debugging port	EtherNET
STO	支持 Supported
分频输出 Frequency division output	支持 Supported
数字量输入 Digital input	8 路 8-channel
数字量输出 Digital output	6 路 6-channel
全闭环 Full closed-loop	不支持 Not supported
直驱抱闸 Direct drive brake	6 路 6-channel
控制模式 Control mode	
控制模式 Control mode	EtherCAT
控制特性 Control characteristics	
龙门同步功能 Gantry synchronization	开发中 In development
位置比较输出功能 Position comparison output	开发中 In development
探针功能 Touch probe	开发中 In development

典型行业应用
Typical industry applications

机器人行业 Robotics industry



Delta 机器人 - 涂胶粘盖
Delta robot - lid applicator

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。
The fully automatic wet wipe lid applicator consists of two conveyor lines and one DELTA robot. The process is as follows: the wet wipe conveyor belt transports the wet wipe packs in an orderly manner. When they reach the visual positioning and acquisition area, the vision system captures, stores, and transmits the coordinates of the wet wipe packs 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；
Max motor speed 5,600 rpm; peak torque overload capacity up to 3 times; continuous torque output overload multiple > 100%;
Production speed > 80 pcs/min;
No dispensing trajectory deformation;

机器人行业 Robotics industry



SCARA 机器人 - 搬运 / 装配
SCARA robot - handling/assembling

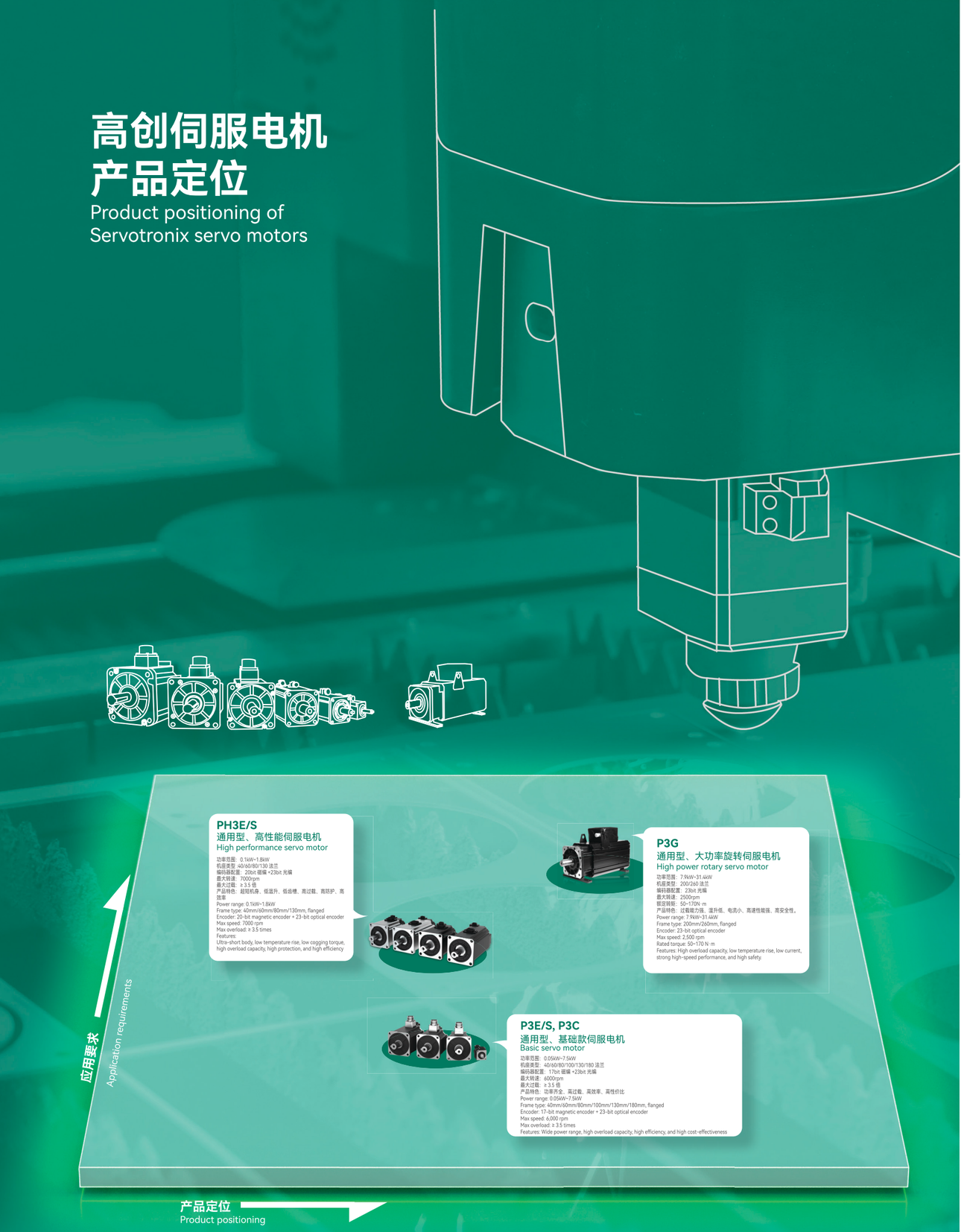
MT 生产线：SCARA 机器人在电子制造中主要负责电子元件（如电阻、电容、IC 芯片等）的贴片、插件等高速、高精度装配任务，能够精确地将元件放置到 PCB 板上的指定位置
MT production line: In electronics manufacturing, SCARA robots are primarily deployed for high-speed, high-precision assembly tasks such as mounting and inserting electronic components (e.g., resistors, capacitors, IC chips), and can accurately place components at specified locations on PCBs.

核心工位 Core station
轴位：机器人 4 轴关节
Axis: 4 robot joint axes

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；
Continuous motor overload capacity of 105%;
Standard gantry frame, with a travel of 305mm, and a cycle time of 0.36s;
Repeated positioning accuracy ±0.02mm;

高创伺服电机
产品定位

Product positioning of
Servotronix servo motors



PH3E/S 系列电机命名规则

PH3E/S series motor 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 Series

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

3 2 版本号 Version

符号 Mark	含义 Meaning
3	第 3 代 3rd generation

S 3 性能类别 Performance category

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 encoder version
E	高性能永磁同步伺服电机 - 磁编版 High performance permanent magnet synchronous servo motor - magnetic encoder version

4 连接符 Connector

M 5 电机类型（结构类型）

Motor type (construction)

符号 Mark	含义 Meaning
L	小惯量 高速电机（额定 3000rpm） Low-inertia high-speed motor (rated speed 3,000 rpm)
M	中惯量 高速电机（额定 3000rpm） Medium-inertia high-speed motor (rated speed 3,000 rpm)
G	中惯量 大转矩电机（额定 1500rpm） Medium-inertia high-torque motor (rated speed 1,500 rpm)

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 class

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 Electromagnetic design serial number
其他 Others	其它电磁设计 Other electromagnetic designs

06 9 机座号 Frame size

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 W/ oil seal, w/o brake
E	带油封 带制动器 W/ oil seal, w/ brake
N	无油封 无制动器 W/o oil seal, w/o brake
B	无油封 带制动器 W/o oil seal, w/ brake

T 11 编码器配置 Encoder configuration

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

备注：（使用 23bit 多摩川数据协议）
Note: The 23-bit Tamagawa data protocol is used

12 连接符 Connector

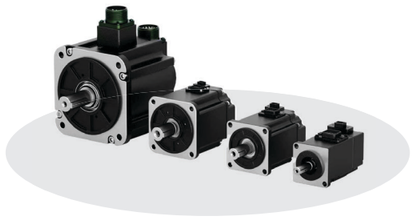
** 13 定制代码 Customization code

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 keyway, standard shaft)
**	其它定制代码，详参定制产品规格书。 For other customization codes, refer to the specifications of custom products.

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
The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

PH3E/S 通用高性能伺服电机

PH3E/S high performance servo motor



IP67 外壳防护等级
IP67

快插接口
Quick-plug interface

≤ 1% 齿槽转矩
* 典型值
Cogging torque ≤ 1%
* Typical value

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

典型工况下机壳温升低于 60K
Enclosure temperature rise below 60K under typical working conditions

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

优化磁路设计、结构设计，运行噪音更低
Optimized magnetic circuit and structural design for lower operating noise

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
Multiple encoders available for selection, and Tamagawa protocol applied by default for greater versatility

20bit 高精度多圈磁编
20-bit high-precision multi-turn magnetic encoder
重复定位精度 50 角秒
Repeated positioning accuracy 50 arc-seconds

23bit 高精度多圈光编
23-bit high-precision multi-turn optical encoder
重复定位精度 20 角秒
Repeated positioning accuracy: 20 arc-seconds

□ 40/60/80 机座产品
□ 40mm/60mm/80mm frame
最大转矩过载可达 3.5 倍以上
Max torque overload : ≥ 3.5 times
最高转速 7000RPM
Max speed 7000RPM

□ 130 机座产品
□ 130mm frame
最大转矩过载可达 2.5 倍以上
Max torque overload: ≥ 2.5 times
最高转速 4500RPM
Max speed 4500RPM

符合 CE、UL、UKCA 认证
CE, UL, and UKCA certified

类型 Type	机座号 Frame size	额定功率 Rated power	输入电压 Input voltage	转矩值（额定 / 峰值）Torque (rated/peak)	转速（额定 / 最高）Speed (rated/max)	惯量值（无制动 / 带制动）Inertia (w/o brake / w/ brake)	电流 Arms（额定 / 峰值）Current Arms (rated/peak)	油封 Oil seal	制动器 Brake	20bit 磁编 单圈绝对值 20-bit magnetic encoder - single-turn, absolute	20bit 磁编 多圈绝对值 20-bit magnetic encoder - multi-turn, absolute	23bit 光编 多圈绝对值 23-bit optical encoder - multi-turn, absolute	推荐驱动器 Recommended drive
L 小惯量高速电机 L Low-inertia high-speed motor	40	0.1	220	0.32/1.12	3000/7000	0.044/0.046	1.24/4.25	×	√	PH3E-L01A004BG	PH3E-L01A004BM	PH3S-L01A004BT	BD3 □ - 1D62A**
								×	×	PH3E-L01A004NG	PH3E-L01A004NM	PH3S-L01A004NT	
								√	√	PH3E-L01A004EG	PH3E-L01A004EM	PH3S-L01A004ET	
								√	×	PH3E-L01A004SG	PH3E-L01A004SM	PH3S-L01A004ST	
M 中惯量高速电机 M Medium-inertia high-speed motor	60	0.2	220	0.64/2.30	3000/7000	0.24/0.25	1.42/5.80	√	√	PH3E-M02A006EG	PH3E-M02A006EM	PH3S-M02A006ET	BD3 □ - 1D62A**
								√	×	PH3E-M02A006SG	PH3E-M02A006SM	PH3S-M02A006ST	
		0.4	220	1.27/4.45	3000/7000	0.47/0.48	2.40/9.60	√	√	PH3E-M04A006EG	PH3E-M04A006EM	PH3S-M04A006ET	BD3 □ - 2D82A**
								√	×	PH3E-M04A006SG	PH3E-M04A006SM	PH3S-M04A006ST	
		0.6	220	1.91/7.50	3000/7000	0.68/0.69	3.95/16.60	√	√	PH3E-M06A006EG	PH3E-M06A006EM	PH3S-M06A006ET	BD3 □ - 5D52A**
								√	×	PH3E-M06A006SG	PH3E-M06A006SM	PH3S-M06A006ST	
	80	0.75	220	2.39/8.37	3000/7000	1.46/1.51	4.20/16.90	√	√	PH3E-M08A008EG	PH3E-M08A008EM	PH3S-M08A008ET	
								√	×	PH3E-M08A008SG	PH3E-M08A008SM	PH3S-M08A008ST	
		1	220	3.18/11.13	3000/7000	2.00/2.05	5.60/23.00	√	√	PH3E-M10A008EG	PH3E-M10A008EM	PH3S-M10A008ET	BD3 □ - 7D62A**
								√	×	PH3E-M10A008SG	PH3E-M10A008SM	PH3S-M10A008ST	
G 中惯量大转矩电机 G Medium inertia high-torque motor	130	0.85	220	5.39/13.50	1500/4500	12.21/14.22	5.73/16.28	√	√	PH3E-G09A013EG	PH3E-G09A013EM	PH3S-G09A013ET	BD3 □ - 7D62A**
								√	×	PH3E-G09A013SG	PH3E-G09A013SM	PH3S-G09A013ST	
			380	5.39/13.50	1500/4500	12.21/14.22	3.30/8.85	√	√	PH3E-G09B013EG	PH3E-G09B013EM	PH3S-G09B013ET	BD3 □ - 3D54D**
								√	×	PH3E-G09B013SG	PH3E-G09B013SM	PH3S-G09B013ST	
		1.3	220	8.28/20.85	1500/4500	18.03/20.05	9.70/26.09	√	√	PH3E-G13A013EG	PH3E-G13A013EM	PH3S-G13A013ET	BD3 □ - 0122A**
								√	×	PH3E-G13A013SG	PH3E-G13A013SM	PH3S-G13A013ST	
			380	8.28/20.85	1500/4500	18.03/20.05	5.15/13.35	√	√	PH3E-G13B013EG	PH3E-G13B013EM	PH3S-G13B013ET	BD3 □ - 5D44D**
								√	×	PH3E-G13B013SG	PH3E-G13B013SM	PH3S-G13B013ST	
		1.8	220	11.5/28.75	1500/4500	23.94/25.95	11.60/31.35	√	√	PH3E-G18A013EG	PH3E-G18A013EM	PH3S-G18A013ET	BD3 □ - 0122A**
								√	×	PH3E-G18A013SG	PH3E-G18A013SM	PH3S-G18A013ST	
			380	11.5/28.75	1500/4500	23.94/25.95	7.14/19.12	√	√	PH3E-G18B013EG	PH3E-G18B013EM	PH3S-G18B013ET	BD3 □ - 8D44D**
								√	×	PH3E-G18B013SG	PH3E-G18B013SM	PH3S-G18B013ST	

P3C 系列电机命名规则
P3C series motor naming rules

P	3	C	-	L	01	A	1	04	S	T	-	***
1	2	3	4	5	6	7	8	9	10	11	12	13

P 1 代系名称 Series

符号 Mark	规格 Specification
P	高创伺服电机产品代号 Servotronix Servo Motor Product Code

3 2 代系号 Generation

符号 Mark	规格 Specification
3	第 3 代 3rd generation

C 3 产品类别 Product category

符号 Mark	规格 Specification
C	小功率通用型旋转伺服电动机 Low power rotary servo motor

- 4 连接符 Connector

L 5 电机类型（结构类型）
Motor type (construction)

符号 Mark	规格 Specification
L	小惯量 高速（额定 3000rpm） Low-inertia high-speed motor (rated speed 3,000 rpm)
C	中惯量中等转速（2000rpm） Medium-inertia medium-speed motor (rated speed 2,000 rpm)
G	中惯量 大转矩（额定 1500rpm） Medium-inertia high-torque motor (rated speed 1,500 rpm)

01 6 额定功率 Rated power

符号 Mark	规格 Specification
A5	0.05kW
01	0.1kw
10	1.0kw
15	1.5kw
20	2.0kw
25	2.5kw

A 7 额定供电
Rated power supply

符号 Mark	规格 Specification
A	220VAC
B	380VAC

1 8 设计序号
Design serial number

符号 Mark	规格 Specification
1	1-9 的 1 位字符，代表不同电磁方案。 A 1-digit character from 1 to 9, representing different electromagnetic solutions

04 9 机座号 Frame size

符号 Mark	规格 Specification
04	40mm
08	80mm
10	100mm
13	130mm
18	180mm

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

符号 Mark	规格 Specification
S	带油封无制动器标准带键轴（Seal） W/ oil seal, w/o brake, standard shaft with keyway (Seal)
E	带油封带制动器标准带键轴（Either） W/ oil seal, w/ brake, standard shaft with keyway (Either)
N	无油封无制动器标准带键轴（None） W/o oil seal, w/o brake, standard with keyway (None)
B	无油封带制动器标准带键轴（Brake） W/o oil seal, w/ brake, standard with keyway (Brake)

符号 Mark	规格 Specification
29	2.9kw
30	3.0kw
44	4.4kw
55	5.5kw
75	7.5kw

T 11 编码器配置 Encoder configuration

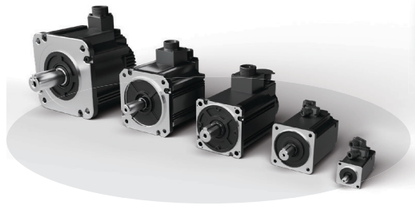
符号 Mark	规格 Specification
T	Tamagawa 协议 标准款 23bit 光学编码器（仅多圈） Standard 23-bit optical encoder supporting Tamagawa protocol (multi-turn only)
J	Tamagawa 协议 标准款 17bit 磁电编码器（仅多圈） Standard 17-bit magnetic encoder supporting Tamagawa protocol (multi-turn only)

12 连接符 Connector

*** 13 定制代码 Customization 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 keyway, standard shaft)
其他 Others	非电磁定制类的客户定制代码，详见规格书 For customization code of non-electromagnetic customizations, see specifications for details

P3C 通用型基础伺服电机
P3C basic servo motor



IP65 防护等级
IP65

配置 17bit/23bit 多圈绝对值编码器
17-bit/23-bit multi-turn absolute encoder

1a
1
2
3
550W 以上机型符合 1 级能效要求
Models of 550W and above meet the Level 1 energy efficiency requirements

CE
符合 CE 认证
CE certified

机座 Frame	功率 Power	额定电压 Rated voltage	额定转矩 Rated torque	额定电流 Rated current	额定转速 Rated speed	最高转速 Max speed	23bit 多圈光编 23-bit multi-turn optical encoder		17bit 多圈磁编 17-bit multi-turn magnetic encoder		BD3E 驱动器 BD3E drive	CDHD2S-RO 驱动器 CDHD2S-RO drive
							不带抱闸 W/o brake	带抱闸 W/ brake	不带抱闸 W/o brake	带抱闸 W/ brake	EB/AP/AP2	总线 & 脉冲 Bus & pulse
40	0.05	220	0.16	0.6A	3000	6000	P3C-LA5A104ST	P3C-LA5A104ET	P3C-LA5A104SJ	P3C-LA5A104EJ	BD3E-1D62A	1D52AEC2
40	0.1	220	0.32	1A	3000	6000	P3C-L01A104ST	P3C-L01A104ET	P3C-L01A104SJ	P3C-L01A104EJ	BD3E-1D62A	1D52AEC2
80	1	220	3.18	6.3A	3000	6000	P3C-L10A108ST	/	P3C-L10A108SJ	/	BD3E-7D62A	0082AEC2
100	1	220	3.18	7A	3000	6000	P3C-L10A110ST	P3C-L10A110ET	P3C-L10A110SJ	P3C-L10A110EJ	BD3E-7D62A	0082AEC2
100	1	380	3.18	3.5A	3000	6000	P3C-L10B110ST	P3C-L10B110ET	P3C-L10B110SJ	P3C-L10B110EJ	BD3E-3D54D	0064DEC2
100	1.5	220	4.77	10A	3000	6000	P3C-L15A110ST	P3C-L15A110ET	P3C-L15A110SJ	P3C-L15A110EJ	BD3E-0122A	0102AEC2
100	1.5	380	4.77	5A	3000	6000	P3C-L15B110ST	P3C-L15B110ET	P3C-L15B110SJ	P3C-L15B110EJ	BD3E-5D44D	0064DEC2
100	2	220	6.37	11.6A	3000	5000	P3C-L20A110ST	P3C-L20A110ET	P3C-L20A110SJ	P3C-L20A110EJ	BD3E-0122A	0132AEC2
100	2	380	6.37	6A	3000	5000	P3C-L20B110ST	P3C-L20B110ET	P3C-L20B110SJ	P3C-L20B110EJ	BD3E-8D44D	0064DEC2
100	2.5	380	7.96	7.5A	3000	5000	P3C-L25B110ST	P3C-L25B110ET	P3C-L25B110SJ	P3C-L25B110EJ	BD3E-0124D	0124DEC2
130	2.2	380	14.3	10.5A	1500	3000	P3C-G22B113ST	P3C-G22B113ET	P3C-G22B113SJ	P3C-G22B113EJ	BD3E-0124D	0124DEC2
130	1	220	4.77	5.8A	2000	3000	P3C-C10A113ST	P3C-C10A113ET	P3C-C10A113SJ	P3C-C10A113EJ	BD3E-7D62A	0062AEC2
130	1	380	4.77	3.5A	2000	3000	P3C-C10B113ST	P3C-C10B113ET	P3C-C10B113SJ	P3C-C10B113EJ	BD3E-3D54D	0064DEC2
130	1.5	220	7.16	8A	2000	3000	P3C-C15A113ST	P3C-C15A113ET	P3C-C15A113SJ	P3C-C15A113EJ	BD3E-0122A	0082AEC2
130	1.5	380	7.16	4.7A	2000	3000	P3C-C15B113ST	P3C-C15B113ET	P3C-C15B113SJ	P3C-C15B113EJ	BD3E-5D44D	0064DEC2
130	2	220	9.55	10.2A	2000	3000	P3C-C20A113ST	P3C-C20A113ET	P3C-C20A113SJ	P3C-C20A113EJ	BD3E-0122A	0132AEC2
130	2	380	9.55	6.2A	2000	3000	P3C-C20B113ST	P3C-C20B113ET	P3C-C20B113SJ	P3C-C20B113EJ	BD3E-8D44D	0124DEC2
130	3	380	14.3	11A	2000	3000	P3C-C30B113ST	P3C-C30B113ET	P3C-C30B113SJ	P3C-C30B113EJ	BD3E-0124D	0124DEC2
180	2.9	380	18.6	11.9A	1500	3000	P3C-G29B118ST	P3C-G29B118ET	P3C-G29B118SJ	P3C-G29B118EJ	BD3E-0124D	0124DEC2
180	4.4	380	28.4	16.5A	1500	3000	P3C-G44B118ST	P3C-G44B118ET	P3C-G44B118SJ	P3C-G44B118EJ	BD3E-0174D	0244DEC2
180	5.5	380	35	20.8A	1500	3000	P3C-G55B118ST	P3C-G55B118ET	P3C-G55B118SJ	P3C-G55B118EJ	BD3E-0214D	0244DEC2
180	7.5	380	48	26A	1500	3000	P3C-G75B118ST	P3C-G75B118ET	P3C-G75B118SJ	P3C-G75B118EJ	BD3E-0264D	0304DEC2

P3E/S 系列电机命名规则
P3E/S series motor 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 Series

符号 Mark	规格 Specification
P	高创伺服电机产品代号 Servotronix Servo Motor Product Code

3 2 代系号 Generation

符号 Mark	规格 Specification
3	第三代 3rd generation

S 3 产品类别 Product category

符号 Mark	规格 Specification
E	小功率通用型旋转伺服电动机（磁编型） Low power rotary servo motor (magnetic encoder version)
S	小功率通用型旋转伺服电动机（光编型） Low power rotary servo motor (optical encoder version)

- 4 12 连接符 12 Connector

L 5 电机类型 Motor type

符号 Mark	规格 Specification
L	小惯量 高速（额定 3000rpm） Low-inertia high-speed motor (rated speed 3,000 rpm)
M	中惯量 高速（额定 3000rpm） Medium-inertia high-speed motor (rated speed 3,000 rpm)
C	中惯量 中等转速（2000rpm） Medium-inertia medium-speed motor (rated speed 2,000 rpm)
G	中惯量 大转矩（额定 1500rpm） Medium-inertia high-torque motor (rated speed 1,500 rpm)

A5 6 额定功率 Rated power

符号 Mark	规格 Specification
A5	0.05kW
01	0.1kW
02	0.2kW
04	0.4kW
E5	0.55kW
06	0.6kW
08	0.75kW
09	0.85kW
10	1.0kW
13	1.3kW
15	1.5kW
18	1.8kW
20	2.0kW
25	2.5kW
29	2.9kW
30	3.0kW

A 7 额定供电 Rated power supply

符号 Mark	规格 Specification
A	220VAC
B	380VAC

2 8 设计序号 Design serial number

规格 Specification
A-Z 的 1 位字符，代表不同电磁方案 A 1-digit character from A to Z, representing different electromagnetic solutions

04 9 机座号 Frame size

符号 Mark	规格 Specification
04	40mm
06	60mm
08	80mm
10	100mm
13	130mm
18	180mm

N 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 标准带键轴 W/ oil seal, w/o brake, standard shaft with keyway
E	带油封 带制动器 标准带键轴 W/ oil seal, w/ brake, standard shaft with keyway
N	无油封 无制动器 标准带键轴 W/o oil seal, w/o brake, standard shaft with keyway
B	无油封 带制动器 标准带键轴 W/o oil seal, w/ brake, standard shaft with keyway

T 11 编码器配置 Encoder configuration

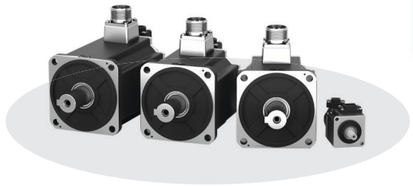
符号 Mark	规格 Specification
T	Tamagawa 协议 标准款 23bit 光学编码器（仅多圈），仅用于 P3S Standard 23-bit optical encoder supporting Tamagawa protocol (multi-turn only), for P3S only
J	Tamagawa 协议 标准款 17bit 磁电编码器（仅多圈），仅用于 P3E Standard 17-bit magnetic encoder supporting Tamagawa protocol (multi-turn only), for P3E only

** 13 定制代码 Customization 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 keyway, standard shaft)
其它 Others	非电磁定制类的客户定制代码，详见规格书 For customization code of non-electromagnetic customizations, see specifications 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
The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

P3E/S 通用型基础款伺服电机
P3E/S basic servo motor



全系 IP67 外壳防护等级（除轴贯通部分）
This series features an enclosure protection rating up to IP67 (except for the through-shaft part)

全系标配 23bit 多圈绝对值光编 /17bit 多圈绝对值磁编
This series comes standard with the 23-bit multi-turn absolute optical encoders /17-bit multi-turn absolute magnetic encoder

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

符合 CE 认证
CE certified

选型配置
Product selection and configuration

机座 Frame [mm]	功率 Power [KW]	电压等级 Voltage class [VAC]	额定转矩 Rated torque [N·m]	额定电流 Rated current [Arms]	额定转速 Rated speed [rpm]	最高转速 Max speed [rpm]	非抱闸机型 Models w/o brake	抱闸机型 Models w/ brake	型号 Model
40	0.05	单相 220V 1ph 220V	0.16	0.58A	3000	6000	P3S-LA5A204NT	P3S-LA5A204BT	CDHD2S-1D52AEC2-RO
40	0.1	单相 220V 1ph 220V	0.32	0.98A	3000	6000	P3S-L01A204NT	P3S-L01A204BT	CDHD2S-1D52AEC2-RO
60	0.2	单相 220V 1ph 220V	0.64	1.3A	3000	6000	P3S-M02A206ST	P3S-M02A206ET	CDHD2S-1D52AEC2-RO
60	0.4	单相 220V 1ph 220V	1.27	2.6A	3000	6000	P3S-M04A206ST	P3S-M04A206ET	CDHD2S-0032AEC2-RO
80	0.75	单相 / 三相 220V 1ph/3ph 220V	2.39	4.6A	3000	6000	P3S-M08A208ST	P3S-M08A208ET	CDHD2S-0062AEC2-RO
80	1	三相 220V 3ph 220V	3.18	6.3A	3000	6000	P3S-M10A208ST	P3S-M10A208ET	CDHD2S-0082AEC2-RO
100	1	三相 220V 3ph 220V	3.18	6.25A	3000	6000	P3S-L10A210ST	P3S-L10A210ET	CDHD2S-0082AEC2-RO
100	1	三相 380V 3ph 380V	3.18	3.44A	3000	6000	P3S-L10B210ST	P3S-L10B210ET	CDHD2S-0064DEC2-RO
100	1.5	三相 220V 3ph 220V	4.78	8.42A	3000	6000	P3S-L15A210ST	P3S-L15A210ET	CDHD2S-0102AEC2-RO
100	1.5	三相 380V 3ph 380V	4.78	4.86A	3000	6000	P3S-L15B210ST	P3S-L15B210ET	CDHD2S-0064DEC2-RO
100	2	三相 220V 3ph 220V	6.37	11.19A	3000	6000	P3S-L20A210ST	P3S-L20A210ET	CDHD2S-0132AEC2-RO
100	2	三相 380V 3ph 380V	6.37	7.05A	3000	6000	P3S-L20B210ST	P3S-L20B210ET	CDHD2S-0124DEC2-RO
100	2.5	三相 380V 3ph 380V	7.96	8.74A	3000	6000	P3S-L25B210ST	P3S-L25B210ET	CDHD2S-0124DEC2-RO
130	0.85	三相 220V 3ph 220V	5.39	5.72A	1500	3000	P3S-G09A213ST	P3S-G09A213ET	CDHD2S-0062AEC2-RO
130	0.85	三相 380V 3ph 380V	5.39	3.16A	1500	3000	P3S-G09B213ST	P3S-G09B213ET	CDHD2S-0064DEC2-RO
130	1.3	三相 220V 3ph 220V	8.34	8.61A	1500	3000	P3S-G13A213ST	P3S-G13A213ET	CDHD2S-0102AEC2-RO
130	1.3	三相 380V 3ph 380V	8.34	4.97A	1500	3000	P3S-G13B213ST	P3S-G13B213ET	CDHD2S-0064DEC2-RO
130	1.8	三相 220V 3ph 220V	11.5	12.43A	1500	3000	P3S-G18A213ST	P3S-G18A213ET	CDHD2S-0132AEC2-RO
130	1.8	三相 380V 3ph 380V	11.5	7.03A	1500	3000	P3S-G18B213ST	P3S-G18B213ET	CDHD2S-0124DEC2-RO
130	1	三相 220V 3ph 220V	4.78	5.06A	2000	3000	P3S-C10A213ST	P3S-C10A213ET	CDHD2S-0062AEC2-RO
130	1	三相 380V 3ph 380V	4.78	2.96A	2000	3000	P3S-C10B213ST	P3S-C10B213ET	CDHD2S-0034DEC2-RO
130	1.5	三相 220V 3ph 220V	7.16	7.56A	2000	3000	P3S-C15A213ST	P3S-C15A213ET	CDHD2S-0082AEC2-RO
130	1.5	三相 380V 3ph 380V	7.16	4.52A	2000	3000	P3S-C15B213ST	P3S-C15B213ET	CDHD2S-0064DEC2-RO
130	2	三相 220V 3ph 220V	9.55	10.19A	2000	3000	P3S-C20A213ST	P3S-C20A213ET	CDHD2S-0132AEC2-RO
130	2	三相 380V 3ph 380V	9.55	5.83A	2000	3000	P3S-C20B213ST	P3S-C20B213ET	CDHD2S-0064DEC2-RO
130	3	三相 380V 3ph 380V	9.8	10.13A	3000	6000	P3S-L30B213ST	P3S-L30B213ET	CDHD2S-0124DEC2-RO
130	4	三相 380V 3ph 380V	12.6	12.96A	3000	6000	P3S-L40B213ST	P3S-L40B213ET	CDHD2S-0244DEC2-RO
130	5	三相 380V 3ph 380V	15.8	16.77A	3000	6000	P3S-L50B213ST	P3S-L50B213ET	CDHD2S-0244DEC2-RO
180	2.9	三相 380V 3ph 380V	18.6	10.26A	1500	3000	P3S-G29B218ST	P3S-G29B218ET	CDHD2S-0124DEC2-RO
180	4.4	三相 380V 3ph 380V	28.4	15.6A	1500	3000	P3S-G44B218ST	P3S-G44B218ET	CDHD2S-0244DEC2-RO
180	5.5	三相 380V 3ph 380V	35	19.77A	1500	3000	P3S-G55B218ST	P3S-G55B218ET	CDHD2S-0244DEC2-RO
180	7.5	三相 380V 3ph 380V	48	26.45A	1500	3000	P3S-G75B218ST	P3S-G75B218ET	CDHD2S-0304DEC2-RO

P3G 系列电机命名规则
P3G series motor 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
1 Series

符号 Mark	规格 Specification
P	高创伺服电机产品代号 Servotronix Servo Motor Product Code

3　2 代系号
2 Generation

符号 Mark	规格 Specification
3	第三代 3rd generation

G　3 产品类别
3 Product category

符号 Mark	规格 Specification
G	大功率通用型旋转伺服电动机 High power rotary servo motor

C　5 电机类型
5 Motor type

	规格 Specification
B	额定 1500rpm，通用 Rated speed 1,500 rpm, general-purpose
C	额定 1700rpm，通用 Rated speed 1,700 rpm, general-purpose
D	额定 2000rpm，通用 Rated speed 2,000 rpm, general-purpose

89B　6 额定功率
6 Rated power

符号 Mark	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 x1,000 W

B　7 额定供电
7 Rated power supply

符号 Mark	规格 Specification
B	380VAC

1　8 电磁设计序号
8 Electromagnetic design serial number

A~Z 的 1 位字符，代表不同电磁方案
A 1-digit character from A to Z, representing different electromagnetic solutions

20　9 机座号
9 Frame size

符号 Mark	规格 Specification
20	200mm
26	260mm

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

符号 Mark	规格 Specification
S	带油封 无制动器 标准带键轴 W/ oil seal, w/o brake, standard shaft with keyway
E	带油封 带制动器 标准带键 W/ oil seal, w/ brake, standard shaft with keyway
N	无油封 无制动器 标准带键轴 W/o oil seal, w/o brake, standard shaft with keyway
B	无油封 带制动器 标准带键 W/o oil seal, w/ brake, standard shaft with keyway

T　11 编码器配置
11 Encoder configuration

符号 Mark	规格 Specification
T	Tamagawa 协议 标准款 23bit 光学编码器（仅多圈） Standard 23-bit optical encoder supporting Tamagawa protocol (multi-turn only)

**　13 定制代码
13 Customization code

符号 Mark	规格 Specification
空 Blank	标准品、自然冷却（标准结构、标准键、标准轴） Standard product, natural cooling (standard structure, standard keyway, 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 For customization code of non-electromagnetic customizations, see specifications for details

4、12：连接符号，无特殊含义
4, 12: Connector, with no special meaning

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
The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

P3G 通用型大功率伺服电机
P3G high power servo motor



过载能力强 Strong overload capacity
温升低 Low temperature rise
电流小 Low current
高速性能强 Excellent high-speed performance
高安全性 High safety

选型配置
Product selection and configuration

机座 [mm] Frame [mm]	额定转速 Rated speed [rpm]	最高转速 [rpm] Max speed[rpm]	功率 [KW] Power [KW]	额定转矩 [N·m] Rated torque [N·m]	额定电流 [Arms] Rated current [Arms]	非抱闸机型 Models w/o brake	抱闸机型 Models w/ brake	驱动器 Drive
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

高创线缆 & 端子
Servotronix cables & terminals

高创天猫旗舰店
Servotronix Tmall Flagship Store

端子线缆 扫码即购
Scan the QR code to purchase terminals and cables

CDHD2S-EC/AP/EC-RO 系列端子
CDHD2S-EC/AP/EC-RO series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
CDHD2S-1D5/003 2APN-RS(MV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415		P2	电机 UVW 端子 Motor UVW terminal	SC-T300B-4P4-BKAu-5	11201707001995	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413						
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	电源端子 Power terminal	SC-T300B-6P6-BKAu-5	11201707001996	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯 菊花链 RS232 communication daisy chain	脉冲 / 总线版本的 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） RS232 port for pulse/bus versions integrated into C7 (RS232 and daisy chain communication supported, non-standard, with Degson terminal 15EDGKN-3.5-06P or Kefa KF2EDGKN-3.5-06P terminal acceptable, and black terminals recommended)							
CDHD2S-4D5/006 2AEC(MV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415		P2	电机 UVW 端子 Motor UVW terminal	SC-T300B-4P4-BKAu-5	11201707001995	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413						
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	再生电阻、电源端子 Regenerative resistor and power supply terminal	SC-T300B-7P7-BKAu-5	11201707001997	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯 菊花链 RS232 communication daisy chain	脉冲 / 总线版本的 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） RS232 port for pulse/bus versions integrated into C7 (RS232 and daisy chain communication supported, non-standard, with Degson terminal 15EDGKN-3.5-06P or Kefa KF2EDGKN-3.5-06P terminal acceptable, and black terminals recommended)							
CDHD2S-008/010/013 2AEC(MV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415		P2	电机 UVW 端子 Motor UVW terminal	F9A-4P4-BKAu-7.5	11201707002295	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413						
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	再生电阻、电源端子 Regenerative resistor and power supply terminal	F9A-7P7-BKAu-7.5	11201707002275	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯 RS232 communication	脉冲 / 总线版本的 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） RS232 port for pulse/bus versions integrated into C7 (RS232 and daisy chain communication supported, non-standard, with Degson terminal 15EDGKN-3.5-06P or Kefa KF2EDGKN-3.5-06P terminal acceptable, and black terminals recommended)							
CDHD2S-003/006 4DEC(HV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415		P2	逻辑电源端子 Logic power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable							
	C8	菊花链 Daisy chain								

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
CDHD2S-012 4DEC(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/F Controller I/F	CONr00000036-01	11201707000415		P2	控制电源端子 Control power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable							
	C8	菊花链 Daisy chain								
CDHD2S-024/030/040 4DEC(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/F Controller I/F	CONr00000036-01	11201707000415		P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	控制电源端子 Control power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable			P6	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C8	菊花链 Daisy chain								
CDHD2S-040 4DEC(HV)(UL 机型)	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/F Controller I/F	CONr00000036-01	11201707000415		P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	控制电源端子 Control power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P5	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P6	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable							
	C8	菊花链 Daisy chain								

CDHD2S-PN 系列端子

CDHD2S-PN series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
CDHD2S-1D5/003 2APN-RS(MV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415						
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	电机 UVW 端子 Motor UVW terminal	SC-T300B-4P4-BKAu-5	11201707001995	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	电源端子 Power terminal	SC-T300B-6P6-BKAu-5	11201707001996	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯菊花链 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）							
CDHD2S-4D5/006 2APN-RS(MV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415						
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	电机 UVW 端子 Motor UVW terminal	SC-T300B-4P4-BKAu-5	11201707001995	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	再生电阻、电源端子 Regenerative resistor、Power terminal	SC-T300B-7P7-BKAu-5	11201707001997	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	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）							

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
CDHD2S-008/010/013 2APN-RS(MV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415		P2	电机 UVW 端子 Motor UVW terminal	F9A-4P4-BKAu-7.5	11201707002295	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	再生电阻、电源端子 Regenerative resistor，Power terminal	F9A-7P7-BKAu-7.5	11201707002275	
	C4	编码器 Encoder	CONr00000026-31	11201707000414						
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯菊花链 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）							
CDHD2S-003/006 4DPN-RS(HV)	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	P1	STO 端子 STO terminal	15EDGKNGB-4P4-GSn-3.5	11201707002095	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415		P2	逻辑电源端子 Logic power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable							
	C8	菊花链 Daisy chain								
CDHD2S-012 4DPN-RS(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/F Controller I/F	CONr00000036-01	11201707000415		P2	控制电源端子 Logic power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable							
	C8	菊花链 Daisy chain								
CDHD2S-024/030 4DPN-RS(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/F Controller I/F	CONr00000036-01	11201707000415		P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	控制电源端子 Logic power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable			P6	电机 UVW 端子 Motor UVW terminal	5EDGKDG-3P3-GSn-7.62-UL	11201707002335	
	C8	菊花链 Daisy chain								
CDHD2S-040 4DPN-RS(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/F Controller I/F	CONr00000036-01	11201707000415		P2	STO 端子 STO terminal	15EDGKNM-4P4-GSn-3.5	11201707001435	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P3	控制电源端子 Control power supply terminal	15EDGKNM-2P2-GSn-3.5	11201707001436	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P4	抱闸端子 Brake terminal	RoHS SPCB-2P2-GSn-7.62	11201707000304	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P5	电源端子 Power terminal	5EDGKDG-6P6-GSn-7.62-UL	11201707002355	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable			P6	电机 UVW 端子 Motor UVW terminal	F6AKHM-3P3-GSn-10.16	11201707000002	
	C8	菊花链 Daisy chain								

LDHD3 系列端子
LDHD3 series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
LDHD3-0062AEB	C1	usb	type-c 接口 usb 调试线		否 No	/	STO 端子 STO terminal	JL15EDGKNB-5P5-BKSn-3.5	17415005000003	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			/	再生电阻、电源端子 Regenerative resistor，Power terminal	JL9EDGKD-HC-50005B02-2	11201707003316	
	C4	控制器 I/F Controller I/F	1394-10P/M 公头	11201707000776		/	电机 UVW 端子 Motor UVW terminal	JL9EDGKD-HC-50004B02-2	11201707003335	
	C5	编码器 Encoder	HPPCS02-26-S-BK-11-1	11201707000414						

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
LDHD3-0102AEB	C1	usb	type-c 接口 usb 调试线		否 No	/	STO 端子 STO terminal	JL15EDGKNB-5P5-BKSn-3.5	17415005000003	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			/	再生电阻、电源端子 Regenerative resistor、Power terminal	JL9EDGKD-HC-50006B02-2	11201707003355	
	C4	控制器 I/F Controller I/F	1394-10P/M 公头	11201707000776		/	电机 UVW 端子 Motor UVW terminal	JL9EDGKD-HC-50004B02-2	11201707003335	
	C5	编码器 Encoder	HPPCS02-26-S-BK-11-1	11201707000414						

LVD2 系列端子
LVD2 series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
LVD2-AP/AP2	usb	usb	type-c 接口 usb 调试线		否 No	STO	STO 端子 STO terminal	PARB-6P6-Wsn-2.0-Jump 外部型号：AH2012-6P	17415000002961	是 Yes
	I/O	控制器 I/F Controller I/F	MDR-36P	/		PWR-In	电源输入接口	3405-5P5-GSn-5.08	11201707000445	
	Feedback	编码器 Encoder	MDR-14P	/		Motor	电机相线接口	2EDGKMB-7P7-GSn-5.08	11201707003195	
LVD2-EB/EC2	usb	usb	type-c 接口 usb 调试线		否 No	STO	STO 端子 STO terminal	PARB-6P6-Wsn-2.0-Jump 外部型号：AH2012-6P	17415000002961	是 Yes
	I/O	控制器 I/F Controller I/F	PADP-16V-1-S	/		PWR-In	电源输入接口	3405-5P5-GSn-5.08	11201707000445	
	Feedback	编码器 Encoder	MDR-14P	/		Motor	电机相线接口	2EDGKMB-7P7-GSn-5.08	11201707003195	
	EtherCAT	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							

CD3E 系列端子
CD3E series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
CD3E-0032AEB CD3E-0062AEB	C1	STO	15EDGKNHGB-8P8-BKSn-3.5	11201707001695	是 Yes	/	电源、再生电阻与电机接口 Power supply, regenerative resistor, and motor interfaces	SC-T300B-8P8-BKAu-5	11201707001675	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable		否 No					
	C4	IO 接口 IO interface	MDR-26P26-BKAu-1.27	11201707000414						
	C5	编码器 Encoder	1394-10P10-GYAu	11201707000776						

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
CD3E-0032AAP CD3E-0062AAP	C1	STO	15EDGKNHGB-8P8-BKSn-3.5	11201707001695	是 Yes	P1	电源与再生电阻接口 Power and regenerative resistor interface	SC-T300B-5P5-BKAu-5	11201707002235	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable		否 No	**P2**	**电机接口** **Motor interface**	**SC-T300B-4P4-BKAu-5**	**11201707001995**	
	C4	IO 接口 IO interface	MDR-36P36-BKAu-1.27	11201707002658						
	C5	编码器 Encoder	1394-10P10-GYAu	11201707000776						

CDHD/CDHD2 系列端子
CDHD/CDHD2 series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
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			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-19	11201707000464	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	电源端子 Power terminal	CONr10000006-06	11201707000465	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ 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/F Controller I/F	CONr00000036-01	11201707000415			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-19	11201707000464	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	再生电阻 Regenerative resistor	CONr10000002-10	11201707000317	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable				针 Pin	PINrSF3F71GF-00	11201707000532	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable			P4	电源端子 Power terminal	CONr10000005-04	11201707000466	
	C8	菊花链 Daisy chain								

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
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/F Controller I/F	CONr00000036-01	11201707000415			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-18	11201707000316	
	C4	编码器 Encoder	CONr00000026-31	11201707000414			针 Pin	CRPrSJ4F71GF-00	11201703000810	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P3	再生电阻 Regenerative resistor	CONr10000002-14	11201707000318	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable				针 Pin	CRPrSJ4F71GF-00	11201703000810	
	C8	菊花链 Daisy chain				P4	功率电源端子 Power supply terminal for power	CONr10000003-19	11201707000319	
							针 Pin	CRPrSJ4F71GF-00	11201703000810	
						P5	逻辑电源端子 Logic power supply terminal	CONr10000002-10	11201707000317	
							针 Pin	PINrSF3F71GF-00	11201707000532	
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/F Controller I/F	CONr00000036-01	11201707000415			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	逻辑电源端子 Logic power supply terminal	CONr10000002-25	11201707000303	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	功率电源端子 Power supply terminal for power	CONr10000003-21	11201707000305	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P4	电机 UVW 端子 Motor UVW terminal	CONr10000004-26	11201707000308	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 F Four-core RJ debugging cable F			P5	再生电阻 Regenerative resistor	CONr10000002-16	11201707000304	
	C8	菊花链 Daisy chain								

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
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/F Controller I/F	CONr00000036-01	11201707000415			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	逻辑电源端子 Logic power supply terminal	CONr10000002-03	11201707000294	
	C4	编码器 Encoder	CONr00000026-31	11201707000414			针 Pin	PINr43030000-00	11201707000289	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P3	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 RJ debugging cable			P4	抱闸端子 Brake terminal	CONr10000002-16	11201707000304	
	C8	菊花链 Daisy chain				P5	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305	
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	CONr00000004-AS	11201707000328	是 Yes
	C2	控制器 I/F Controller I/F	CONr00000036-01	11201707000415			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	逻辑电源端子 Logic power supply terminal	CONr10000002-03	11201707000294	
	C4	编码器 Encoder	CONr00000026-31	11201707000414			针 Pin	PINr43030000-00	11201707000294	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P3	STO 端子 STO terminal	CONr00000004-AS	11201707000328	
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable				针 Pin	PINr43030000-00	11201707000289	
	C8	菊花链 Daisy chain				P4	抱闸端子 Brake terminal	CONr10000002-16	11201707000304	
						P5	电源端子、再生电阻 Power supply terminal, regenerative resistor	CONr00000006-78	11201707000306	
						P6	电机 UVW 端子 Motor UVW terminal	CONr10000003-21	11201707000305	
CDHD2-003/006/012/015 1D(LV)	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			针 Pin	PINr43030000-00	11201707000289	
	C3	机器 I/F Machine I/F	CONr00000020-38	11201707000413		P2	电机 UVW 端子 Motor UVW terminal	CONr10000004-74	11201707000323	
	C4	编码器 Encoder	CONr00000026-31	11201707000414		P3	电源端子 Power terminal	CONr10000005-45	11201707000445	
	C5&C6	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable							
	C7	RS232 通讯 RS232 communication	四芯水晶头调试线 Four-core RJ debugging cable							
	C8	菊花链 Daisy chain								

LDHD2 系列端子
LDHD2 series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
LDHD2- 003/006 2AEC	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 CAT 6A Ethernet cable							
	C4	机器 I/F Machine I/F	CONr00000026-31	11201707000414						
	C5	编码器 Encoder	CONrC0207548-00	11201707000776		P2	电机 UVW 端子 Motor UVW terminal	CONr10000003-86	11201707000876	
	C6	编码器 Encoder	CONrC0207548-00	11201707000776						

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
LDHD2-012/018/024 4DEC	C1	mini-usb	mini-usb 伺服调试线 Mini-USB servo debugging cable		否 No	STO	STO 端子	15EDGKNHGB-8P8-BKSn-3.5	"STO 套件 12115000001401 对接插座 11201707001695"	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable			P1	电源端子	5EDGKDGB-5P5-BKSnBD-7.62	11201707002695	
	C4	机器 I/F Machine I/F	CONr00000036-01	11201707000415		P2	电机 UVW 端子	5EDGKDGB-3P3-BKSnBD-7.62	11201707002715	
	C5	编码器 Encoder	CONr00000026-31	11201707000414		P3	电抗器与再生电阻	5EDGKDGB-4P4-BKSnBD-7.62	11201707002696	

BD3E-EB 系列端子
BD3E-EB series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
BD3E-1D62AEB BD3E-2D82AEB BD3E-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)	12115000001401	是 Yes	P1	电源和电机连接端子 Power and motor connection terminal	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 CAT 6A Ethernet cable	-	否 No					
	C4	控制器 I/F Controller I/F	MDR-20P20-BKAu-1.27	11201707000413						
	C5	编码器 Encoder	SC-06-4	12119400000273						
BD3E-7D62AEB BD3E-0122AEB BD3E-3D54DEB BD3E-5D54DEB BD3E-8D44DEB BD3E-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)	12115000001401	是 Yes	P1	电源和电机连接端子 Power and motor connection terminal	9EDGK-7.5-09P-13-1061Z(H)	11201707002135	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable	-	否 No					
	C4	控制器 I/F Controller I/F	MDR-20P20-BKAu-1.27	11201707000413						
	C5	编码器 Encoder	SC-06-4	12119400000273						

BD3E-AP 系列端子
BD3E-AP series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 (P/N)	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
BD3E-1D62AAP BD3E-2D82AAP BD3E-5D52AAP	C2&C3	通讯接口 Communication interface	RJ45+ 超六类网线 RJ45 + CAT 6A Ethernet cable		否 No	P1	电源和电机连接端子 Power and motor connection terminal	SC-T3005008SB0XT-45	11201707001675	是 Yes
	C4	控制器 I/F Controller I/F	24F78-01-05-00	12115000002541	是 Yes					
	C5	编码器 Encoder	SC-06-4	12119400000273	否 No					
	C5	编码器 Encoder	SC-06-4	12119400000273						
BD3E-7D62AEB BD3E-0122AEB BD3E-3D54DEB BD3E-5D54DEB BD3E-8D44DEB BD3E-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)	12115000001401	是 Yes	P1	电源和电机连接端子 Power and motor connection terminal	9EDGK-7.5-09P-13-1061Z(H)	11201707002135	是 Yes
	C2&C3	总线通讯接口 Bus communication interface	选择超六类网线即可 CAT 6A Ethernet cable	-	否 No					
	C4	控制器 I/F Controller I/F	MDR-20P20-BKAu-1.27	11201707000413						
	C5	编码器 Encoder	SC-06-4	12119400000273						

CDHD2S-RO 系列线缆
CDHD2S-RO series cables

动力线或配件包（CDHD2S-RO 驱动器 +P3S/E 电机）
Power cable or accessory kit (CDHD2S-RO drive + P3S/E motor)

电机类型 Motor type	驱动类型 Drive type	长度（米） Length (m)	无制动器 W/o brake			带制动器 W/ brake		连接器套件包 Connector kit
			前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	前出线 Front outlet	后出线 Rear outlet	
LA5/L01/M02/M04	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-A65011-0303-F	SPC-A67011-0303-F	前出线：CAP-A6-01-A 后出线：CAP-A6-01-B Front outlet: CAP-A6-01-A Rear outlet: CAP-A6-01-B	SPC-A66021-0403-F	SPC-A68021-0403-F	前出线：CAP-A6-02-A 后出线：CAP-A6-02-B Front outlet: CAP-A6-02-A Rear outlet: CAP-A6-02-B
		5	SPC-A65011-0305-F	SPC-A67011-0305-F		SPC-A66021-0405-F	SPC-A68021-0405-F	
		10	SPC-A65011-0310-F	SPC-A67011-0310-F		SPC-A66021-0410-F	SPC-A68021-0410-F	
		15	SPC-A65011-0315-F	SPC-A67011-0315-F		SPC-A66021-0415-F	SPC-A68021-0415-F	
		20	SPC-A65011-0320-F	SPC-A67011-0320-F		SPC-A66021-0420-F	SPC-A68021-0420-F	
M08/M10	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-A65031-0503-F	SPC-A67031-0503-F	前出线：CAP-A6-03-A 后出线：CAP-A6-03-B Front outlet: CAP-A6-03-A Rear outlet: CAP-A6-03-B	SPC-A66041-0603-F	SPC-A68041-0603-F	前出线：CAP-A6-04-A 后出线：CAP-A6-04-B Front outlet: CAP-A6-04-A Rear outlet: CAP-A6-04-B
		5	SPC-A65031-0505-F	SPC-A67031-0505-F		SPC-A66041-0605-F	SPC-A68041-0605-F	
		10	SPC-A65031-0510-F	SPC-A67031-0510-F		SPC-A66041-0610-F	SPC-A68041-0610-F	
		15	SPC-A65031-0515-F	SPC-A67031-0515-F		SPC-A66041-0615-F	SPC-A68041-0615-F	
		20	SPC-A65031-0520-F	SPC-A67031-0520-F		SPC-A66041-0620-F	SPC-A68041-0620-F	
G09/G13, L10/L15, C10/C15	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-AC1051-0903-F		CAP-AC-05-1	SPC-AD1061-1003-F		CAP-AD-06-1
		5	SPC-AC1051-0905-F			SPC-AD1061-1005-F		
		10	SPC-AC1051-0910-F			SPC-AD1061-1010-F		
		15	SPC-AC1051-0915-F			SPC-AD1061-1015-F		
		20	SPC-AC1051-0920-F			SPC-AD1061-1020-F		
G18, L20, C20	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-AC2071-1503-F		CAP-AC-07-1	SPC-AD2081-1603-F		CAP-AD-08-1
		5	SPC-AC2071-1505-F			SPC-AD2081-1605-F		
		10	SPC-AC2071-1510-F			SPC-AD2081-1610-F		
		15	SPC-AC2071-1515-F			SPC-AD2081-1615-F		
		20	SPC-AC2071-1520-F			SPC-AD2081-1620-F		
L25/L30/L40/L50	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-AC3091-1703-F		CAP-AC-09-1	SPC-AD3101-1803-F		CAP-AD-10-1
		5	SPC-AC3091-1705-F			SPC-AD3101-1805-F		
		10	SPC-AC3091-1710-F			SPC-AD3101-1810-F		
		15	SPC-AC3091-1715-F			SPC-AD3101-1815-F		
		20	SPC-AC3091-1720-F			SPC-AD3101-1820-F		
G29	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-AE1071-1503-F		CAP-AE-07-1	SPC-AF1081-1603-F		CAP-AF-08-1
		5	SPC-AE1071-1505-F			SPC-AF1081-1605-F		
		10	SPC-AE1071-1510-F			SPC-AF1081-1610-F		
		15	SPC-AE1071-1515-F			SPC-AF1081-1615-F		
		20	SPC-AE1071-1520-F			SPC-AF1081-1620-F		
G44	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-AE2091-1703-F		CAP-AE-09-1	SPC-AF2101-1803-F		CAP-AF-10-1
		5	SPC-AE2091-1705-F			SPC-AF2101-1805-F		
		10	SPC-AE2091-1710-F			SPC-AF2101-1810-F		
		15	SPC-AE2091-1715-F			SPC-AF2101-1815-F		
		20	SPC-AE2091-1720-F			SPC-AF2101-1820-F		
G55/G75	CDHD2S-RO 系列 CDHD2S-RO series	3	SPC-AE3111-2103-F		CAP-AE-11-1	SPC-AF3121-2203-F		CAP-AF-12-1
		5	SPC-AE3111-2105-F			SPC-AF3121-2205-F		
		10	SPC-AE3111-2110-F			SPC-AF3121-2210-F		
		15	SPC-AE3111-2115-F			SPC-AF3121-2215-F		
		20	SPC-AE3111-2120-F			SPC-AF3121-2220-F		

编码器线或配件包（CDHD2S-RO 驱动器 +P3S/E 电机）
Encoder cable or accessory kit (CDHD2S-RO drive + P3S/E motor)

P3 系列电机类别 Category of P3 series motor	驱动类型 Drive type	长度（米） Length (m)	编码器线延长线（单圈绝对值、无电池 / 电池盒组件） Encoder cable extension - single-turn, absolute (w/o battery/battery box assembly)			编码器线延长线（多圈绝对值、带电池 / 电池盒组件） Encoder cable extension - multi-turn, absolute (w/ battery/battery box assembly)		
			高柔线 High-flex cable		连接器套件包 Connector kit	高柔线 High-flex cable		连接器套件包 Connector kit
			前出线 Front outlet	后出线 Rear outlet		前出线 Front outlet	后出线 Rear outlet	
LA5/L01	CDHD2S-RO 系列 CDHD2S-RO series	3	SFC-A81A51-0103-F	SFC-A83A51-0103-F	CAP-A8-A5-1	SFC-A82A52-0103-F	SFC-A84A52-0103-F	CAP-A8-A5-2
		5	SFC-A81A51-0105-F	SFC-A83A51-0105-F		SFC-A82A52-0105-F	SFC-A84A52-0105-F	
		10	SFC-A81A51-0110-F	SFC-A83A51-0110-F		SFC-A82A52-0110-F	SFC-A84A52-0110-F	
		15	SFC-A81A51-E015-F	SFC-A83A51-E015-F		SFC-A82A52-E015-F	SFC-A84A52-E015-F	
		20	SFC-A81A51-E020-F	SFC-A83A51-E020-F		SFC-A82A52-E020-F	SFC-A84A52-E020-F	
M02/M04/M08/M10	CDHD2S-RO 系列 CDHD2S-RO series	3	SFC-A91A51-0103-F	SFC-A93A51-0103-F	CAP-A9-A5-1	SFC-A92A52-0103-F	SFC-A94A52-0103-F	CAP-A9-A5-2
		5	SFC-A91A51-0105-F	SFC-A93A51-0105-F		SFC-A92A52-0105-F	SFC-A94A52-0105-F	
		10	SFC-A91A51-0110-F	SFC-A93A51-0110-F		SFC-A92A52-0110-F	SFC-A94A52-0110-F	
		15	SFC-A91A51-E015-F	SFC-A93A51-E015-F		SFC-A92A52-E015-F	SFC-A94A52-E015-F	
		20	SFC-A91A51-E020-F	SFC-A93A51-E020-F		SFC-A92A52-E020-F	SFC-A94A52-E020-F	
L10/L15/L20/L25 G09/G13/G18/G29/G44/G55/G75 C10/C15/C20	CDHD2S-RO 系列 CDHD2S-RO series	3	SFC-AA1A51-0103-F		CAP-AA-A5-1	SFC-AA2A52-0103-F		CAP-AA-A5-2
		5	SFC-AA1A51-0105-F			SFC-AA2A52-0105-F		
		10	SFC-AA1A51-0110-F			SFC-AA2A52-0110-F		
		15	SFC-AA1A51-E015-F			SFC-AA2A52-E015-F		
		20	SFC-AA1A51-E020-F			SFC-AA2A52-E020-F		

BD3E+PH3 系列线缆
BD3E+PH3 series cables

动力线或配件包（BD3E 驱动器 + PH3 电机）
Power cable or accessory kit (BD3E drive + PH3 motor)

PH3 电机型号 PH3 motor model	驱动类型 Drive type	长度（米） Length (m)	无制动器 W/o brake			带制动器 W/ brake			I/O 控制端子插头 I/O connector
			前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	
L01, M02/04/06	BD3 系列 BD3 series	3	SPC-A61011-0303-F	SPC-A63011-0303-F	前出线：CAP-A6-01-A 后出线：CAP-A6-01-B Front outlet: CAP-A6-01-A Rear outlet: CAP-A6-01-B	SPC-A62021-0403-F	SPC-A64021-0403-F	前出线：CAP-A6-02-A 后出线：CAP-A6-02-B Front outlet: CAP-A6-02-A Rear outlet: CAP-A6-02-B	BD3 EB 版本：C4 端子 /RoHS MDR-20P20-BKAu-1.27（需采买 /11201707000413）BD3 AP 版本：24F78-01-05-00（随机标配 /12115000002541） BD3 EB version: C4 terminal/RoHS MDR-20P20-BKAu-1.27 (to be purchased/11201707000413) BD3 AP version: 24F78-01-05-00 (included as standard/12115000002541)
		5	SPC-A61011-0305-F	SPC-A63011-0305-F		SPC-A62021-0405-F	SPC-A64021-0405-F		
		10	SPC-A61011-0310-F	SPC-A63011-0310-F		SPC-A62021-0410-F	SPC-A64021-0410-F		
		15	SPC-A61011-0315-F	SPC-A63011-0315-F		SPC-A62021-0415-F	SPC-A64021-0415-F		
		20	SPC-A61011-0320-F	SPC-A63011-0320-F		SPC-A62021-0420-F	SPC-A64021-0420-F		
M08/10	BD3 系列 BD3 series	3	SPC-A61031-0503-F	SPC-A63031-0503-F	前出线：CAP-A6-03-A 后出线：CAP-A6-03-B Front outlet: CAP-A6-03-A Rear outlet: CAP-A6-03-B	SPC-A62041-0603-F	SPC-A64041-0603-F	前出线：CAP-A6-04-A 后出线：CAP-A6-04-B Front outlet: CAP-A6-04-A Rear outlet: CAP-A6-04-B	
		5	SPC-A61031-0505-F	SPC-A63031-0505-F		SPC-A62041-0605-F	SPC-A64041-0605-F		
		10	SPC-A61031-0510-F	SPC-A63031-0510-F		SPC-A62041-0610-F	SPC-A64041-0610-F		
		15	SPC-A61031-0515-F	SPC-A63031-0515-F		SPC-A62041-0615-F	SPC-A64041-0615-F		
		20	SPC-A61031-0520-F	SPC-A63031-0520-F		SPC-A62041-0620-F	SPC-A64041-0620-F		
G09/13/18	BD3 系列 BD3 series	3	CBL-PWPH220000A003		CAP-PWPH20000A0	CBL-PWPH220001A003		CBL-PWPH20001A0	
		5	CBL-PWPH220000A005			CBL-PWPH220001A005			
		10	CBL-PWPH220000A010			CBL-PWPH220001A010			
		15	CBL-PWPH220000A015			CBL-PWPH220001A015			
		20	CBL-PWPH220000A020			CBL-PWPH220001A020			

编码器线或配件包（BD3E 驱动器 + PH3 电机）
Encoder cable or accessory kit (BD3E drive + PH3 motor)

PH3 电机型号 PH3 motor model	驱动类型 Drive type	长度（米）length (m) Length (m)	单圈绝对值款（无电池）Single-turn absolute value model (battery) Model with single-turn absolute encoder (w/o battery)			多圈绝对值款（带电池） Multi-turn absolute encoder (w/ battery)			I/O 控制端子插头 I/O connector
			前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	
L01, M02/04/06/08/10	BD3 系列 BD3 series	3	SFC-A71A41-0103-F	SFC-A73A41-0103-F	CAP-A7-A4-1	SFC-A72A43-0103-F	SFC-A74A43-0103-F	CAP-A7-A4-3	BD3 EB 版本：C4 端子 /RoHS MDR-20P20-BKAu-1.27（需采买 /11201707000413）BD3 AP 版本：24F78-01-05-00（随机标配 /12115000002541） BD3 EB version: C4 terminal/RoHS MDR-20P20-BKAu-1.27 (to be purchased/11201707000413) BD3 AP version: 24F78-01-05-00 (included as standard/12115000002541)
		5	SFC-A71A41-0105-F	SFC-A73A41-0105-F		SFC-A72A43-0105-F	SFC-A74A43-0105-F		
		10	SFC-A71A41-0110-F	SFC-A73A41-0110-F		SFC-A72A43-0110-F	SFC-A74A43-0110-F		
		15	SFC-A71A41-0115-F	SFC-A73A41-0115-F		SFC-A72A43-0115-F	SFC-A74A43-0115-F		
		20	SFC-A71A41-0120-F	SFC-A73A41-0120-F		SFC-A72A43-0120-F	SFC-A74A43-0120-F		
G09/13/18	BD3 系列 BD3 series	3	CBL-FBPH22S301A003		CAP-FBPH2S301A0	CBL-FBPH22T203A003		CAP-FBPH2T203A0	
		5	CBL-FBPH22S301A005			CBL-FBPH22T203A005			
		10	CBL-FBPH22S301A010			CBL-FBPH22T203A010			
		15	CBL-FBPH22S301A015			CBL-FBPH22T203A015			
		20	CBL-FBPH22S301A020			CBL-FBPH22T203A020			

备注：
1. BD3 伺服系统标配柔性线缆；
2. 仅提供标准线长，非标准线长请联系我司销售人员评估定制，或自行制作。

Note:
1. The BD3 servo system comes standard with flexible cables;
2. Only cables of standard lengths are provided. For cables of other lengths, please contact our sales staff for evaluation and customization, or make them yourself.

动力线或配件包（BD3E 驱动器 + P3S/E 电机）

Power cable or accessory kit (BD3E drive +P3S/E motor)

P3S/E 系列电机规格 P3S/E series motor specifications	驱动类型 Drive type	长度（米） Length (m)	单圈绝对值款（无电池） Single-turn absolute encoder (w/o battery)			多圈绝对值款（带电池） Multi-turn absolute encoder (w/ battery)		
			前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit
LA5/L01/M02/M04	BD3 系列 BD3 series	3	SPC-A65011-0303-F	SPC-A67011-0303-F	前出线：CAP-A6-01-A 后出线：CAP-A6-01-B Front outlet：CAP-A6-01-A Rear outlet：CAP-A6-01-B	SPC-A66021-0403-F	SPC-A68021-0403-F	前出线：CAP-A6-02-A 后出线：CAP-A6-02-B Front outlet：CAP-A6-02-A Rear outlet：CAP-A6-02-B
		5	SPC-A65011-0305-F	SPC-A67011-0305-F		SPC-A66021-0405-F	SPC-A68021-0405-F	
		10	SPC-A65011-0310-F	SPC-A67011-0310-F		SPC-A66021-0410-F	SPC-A68021-0410-F	
		15	SPC-A65011-0315-F	SPC-A67011-0315-F		SPC-A66021-0415-F	SPC-A68021-0415-F	
		20	SPC-A65011-0320-F	SPC-A65011-0320-F		SPC-A66021-0420-F	SPC-A68021-0420-F	
M08/M10	BD3 系列 BD3 series	3	SPC-A65031-0503-F	SPC-A65031-0503-F	前出线：CAP-A6-03-A 后出线：CAPA6-03-B Front outlet：CAP-A6-03-A Rear outlet：CAP-A6-03-B	SPC-A66041-0603-F	SPC-A68041-0603-F	前出线：CAP-A6-04-A 后出线：CAP-A6-04-B Front outlet：CAP-A6-04-A Rear outlet：CAP-A6-04-B
		5	SPC-A65031-0505-F	SPC-A65031-0505-F		SPC-A66041-0605-F	SPC-A68041-0605-F	
		10	SPC-A65031-0510-F	SPC-A65031-0510-F		SPC-A66041-0610-F	SPC-A68041-0610-F	
		15	SPC-A65031-0515-F	SPC-A65031-0515-F		SPC-A66041-0615-F	SPC-A68041-0615-F	
		20	SPC-A65031-0520-F	SPC-A65031-0520-F		SPC-A66041-0620-F	SPC-A68041-0620-F	
G09/G13, L10/L15, C10/C15	BD3 系列 BD3 series	3	SPC-AC1051-0903-F		CAP-AC-05-1	SPC-AD1061-1003-F		CAP-AD-06-1
		5	SPC-AC1051-0905-F			SPC-AD1061-1005-F		
		10	SPC-AC1051-0910-F			SPC-AD1061-1010-F		
		15	SPC-AC1051-0915-F			SPC-AD1061-1015-F		
		20	SPC-AC1051-0920-F			SPC-AD1061-1020-F		
G18, L20, C20	BD3 系列 BD3 series	3	SPC-AC2071-1503-F		CAP-AC-07-1	SPC-AD2081-1603-F		CAP-AD-08-1
		5	SPC-AC2071-1505-F			SPC-AD2081-1605-F		
		10	SPC-AC2071-1510-F			SPC-AD2081-1610-F		
		15	SPC-AC2071-1515-F			SPC-AD2081-1615-F		
		20	SPC-AC2071-1520-F			SPC-AD2081-1620-F		
L25/L30	BD3 系列 BD3 series	3	SPC-AC3091-1703-F		CAP-AC-09-1	SPC-AD3101-1803-F		CAP-AD-10-1
		5	SPC-AC3091-1705-F			SPC-AD3101-1805-F		
		10	SPC-AC3091-1710-F			SPC-AD3101-1810-F		
		15	SPC-AC3091-1715-F			SPC-AD3101-1815-F		
		20	SPC-AC3091-1720-F			SPC-AD3101-1820-F		
G29	BD3 系列 BD3 series	3	SPC-AE1071-1503-F		CAP-AE-07-1	SPC-AF1081-1603-F		CAP-AF-08-1
		5	SPC-AE1071-1505-F			SPC-AF1081-1605-F		
		10	SPC-AE1071-1510-F			SPC-AF1081-1610-F		
		15	SPC-AE1071-1515-F			SPC-AF1081-1615-F		
		20	SPC-AE1071-1520-F			SPC-AF1081-1620-F		

编码器线或配件包（BD3E 驱动器 + P3S/E 电机）

Encoder cable or accessory kit (BD3E drive + P3S/E motor)

P3S/E 系列电机规格 P3S/E series motor specifications	驱动类型 Drive type	长度（米） Length (m)	单圈绝对值款（无电池） Single-turn absolute encoder (w/o battery)			多圈绝对值款（带电池） Multi-turn absolute encoder (w/ battery)		
			前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit	前出线 Front outlet	后出线 Rear outlet	连接器套件包 Connector kit
LA5/L01	BD3 系列 BD3 series	3	SFC-A81A41-0103-F	SFC-A83A41-0103-F	CAP-A8-A4-1	SFC-A82A43-0103-F	SFC-A84A43-0103-F	CAP-A8-A4-3
		5	SFC-A81A41-0105-F	SFC-A83A41-0105-F		SFC-A82A43-0105-F	SFC-A84A43-0105-F	
		10	SFC-A81A41-0110-F	SFC-A83A41-0110-F		SFC-A82A43-0110-F	SFC-A84A43-0110-F	
		15	SFC-A81A41-0115-F	SFC-A83A41-0115-F		SFC-A82A43-0115-F	SFC-A84A43-0115-F	
		20	SFC-A81A41-0120-F	SFC-A83A41-0120-F		SFC-A82A43-0120-F	SFC-A84A43-0120-F	
M02/M04/M08/M10	BD3 系列 BD3 series	3	SFC-A91A41-0103-F	SFC-A93A41-0103-F	CAP-A9-A4-1	SFC-A92A43-0103-F	SFC-A94A43-0103-F	CAP-A9-A4-3
		5	SFC-A91A41-0105-F	SFC-A93A41-0105-F		SFC-A92A43-0105-F	SFC-A94A43-0105-F	
		10	SFC-A91A41-0110-F	SFC-A93A41-0110-F		SFC-A92A43-0110-F	SFC-A94A43-0110-F	
		15	SFC-A91A41-0115-F	SFC-A93A41-0115-F		SFC-A92A43-0115-F	SFC-A94A43-0115-F	
		20	SFC-A91A41-0120-F	SFC-A93A41-0120-F		SFC-A92A43-0120-F	SFC-A94A43-0120-F	
L10/L15/L20/L25/L30 G09/G13/G18/G29/C10/C15/C20	BD3 系列 BD3 series	3	SFC-AA1A41-0103-F		CAP-AA-A4-1	SFC-AA2A43-0103-F		CAP-AA-A4-3
		5	SFC-AA1A41-0105-F			SFC-AA2A43-0105-F		
		10	SFC-AA1A41-0110-F			SFC-AA2A43-0110-F		
		15	SFC-AA1A41-0115-F			SFC-AA2A43-0115-F		
		20	SFC-AA1A41-0120-F			SFC-AA2A43-0120-F		

P3C 系列电机配套线缆
P3C series motor cable

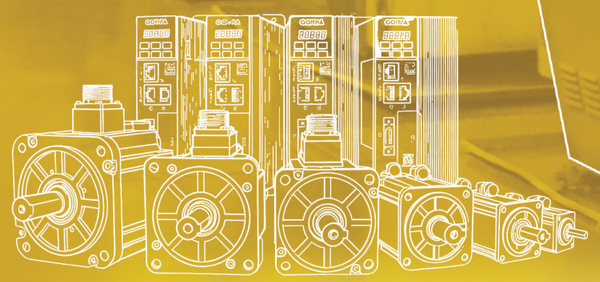
P3C 系列电机类别 Category of P3C series motor	驱动类型 Drive type	长度（米） Length (m)	动力线延长线 - 无制动器款 Power cable extension - w/o brake			动力线延长线 - 带制动器款 Power cable extension - w/ brake		
			高柔线 High-flex cable		连接器套件包 Connector kit	高柔线 High-flex cable		连接器套件包 Connector kit
			前出线 Front outlet	后出线 Rear outlet		前出线 Front outlet	后出线 Rear outlet	
40 机座 40mm frame LA5/L01	CDHD2S-RO 系列 BD3 系列 CDHD2S-RO series BD3 series	3	SPC-A65011-0303-F	SPC-A67011-0303-F	前出线：CAP-A6-01-A 后出线：CAP-A6-01-B Front outlet: CAP-A6-01-A Rear outlet: CAP-A6-01-B	SPC-A66021-0403-F	SPC-A68021-0403-F	前出线：CAP-A6-02-A 后出线：CAP-A6-02-B Front outlet: CAP-A6-02-A Rear outlet: CAP-A6-02-B
		5	SPC-A65011-0305-F	SPC-A67011-0305-F		SPC-A66021-0405-F	SPC-A68021-0405-F	
		10	SPC-A65011-0310-F	SPC-A67011-0310-F		SPC-A66021-0410-F	SPC-A68021-0410-F	
60/80 机座 60mm/80mm frame L10	CDHD2S-RO 系列 BD3 系列 CDHD2S-RO series BD3 series	3	SPC-A65031-0503-F	SPC-A67031-0503-F	前出线：CAP-A6-03-A 后出线：CAP-A6-03-B Front outlet: CAP-A6-03-A Rear outlet: CAP-A6-03-B	SPC-A66041-0603-F	SPC-A68041-0603-F	前出线：CAP-A6-04-A 后出线：CAP-A6-04-B Front outlet: CAP-A6-04-A Rear outlet: CAP-A6-04-B
		5	SPC-A65031-0505-F	SPC-A67031-0505-F		SPC-A66041-0605-F	SPC-A68041-0605-F	
		10	SPC-A65031-0510-F	SPC-A67031-0510-F		SPC-A66041-0610-F	SPC-A68041-0610-F	
100/130 机座 100mm/130mm frame L10/L15/C10/C15	CDHD2S-RO 系列 BD3 系列 CDHD2S-RO series BD3 series	3	SPC-AG1051-0903-F		CAP-AG-05-1	SPC-AH1061-1003-F		CAP-AH-06-1
		5	SPC-AG1051-0905-F			SPC-AH1061-1005-F		
		10	SPC-AG1051-0910-F			SPC-AH1061-1010-F		
100/130 机座 100mm/130mm frame G22/L20/L25/C20/C30	CDHD2S-RO 系列 BD3 系列 CDHD2S-RO series BD3 series	3	SPC-AG2071-1503-F		CAP-AG-07-1	SPC-AH2081-1603-F		CAP-AH-08-1
		5	SPC-AG2071-1505-F			SPC-AH2081-1605-F		
		10	SPC-AG2071-1510-F			SPC-AH2081-1610-F		

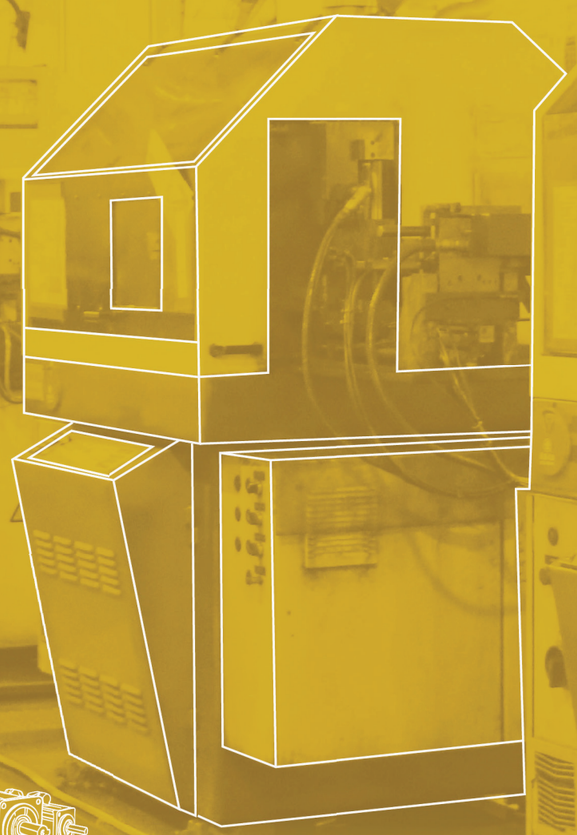
P3C 系列电机类别 Category of P3C series motor	驱动类型 Drive type	长度（米） Length (m)	动力线延长线 Power cable extension	连接器套件包 Connector kit	制动器电源线 Brake power cable	连接器套件包 Connector kit
180 机座 180mm frame G29/G44	CDHD2S-RO 系列 BD3 系列 CDHD2S-RO series BD3 series	3	SPC-AJ1091-1703-F	CAP-AJ-09-1	SBC-AK1131-0203-F	CAP-AK-13-1
		5	SPC-AJ1091-1705-F		SBC-AK1131-0205-F	
		10	SPC-AJ1091-1710-F		SBC-AK1131-0210-F	
180 机座 180mm frame G55/G75	CDHD2S-RO 系列 BD3 系列 CDHD2S-RO series BD3 series	3	SPC-AJ2111-2103-F	CAP-AJ-11-1	SBC-AK1131-0203-F	CAP-AK-13-1
		5	SPC-AJ2111-2105-F		SBC-AK1131-0205-F	
		10	SPC-AJ2111-2110-F		SBC-AK1131-0210-F	

注：180 机座电机动力线与制动器电源线为两个端子，非抱闸电机选用动力线即可，带抱闸电机需选动力线 + 制动器电源线
Note: Motors with 180mm frame have two separate terminals for the power cable and the brake power cable. For motors without a brake, use the power cable only. For motors with a brake, use both the power cable and the brake power cable.

P3C 系列电机类别 Category of P3C series motor	驱动类型 Drive type	长度（米） Length (m)	编码器线延长线（单圈绝对值、无电池 / 电池盒组件） Encoder cable extension - single-turn, absolute (w/o battery/battery box assembly)			编码器线延长线（多圈绝对值、带电池 / 电池盒组件） Encoder cable extension - multi-turn, absolute (w/ battery/battery box assembly)		
			高柔线 High-flex cable		连接器套件包 Connector kit	高柔线 High-flex cable		连接器套件包 Connector kit
			前出线 Front outlet	后出线 Rear outlet		前出线 Front outlet	后出线 Rear outlet	
40 机座 40mm frame LA5/L01	CDHD2S-RO 系列 CDHD2S-RO series	3	SFC-A81A51-0103-F	SFC-A83A51-0103-F	CAP-A8-A5-1	SFC-A82A52-0103-F	SFC-A84A52-0103-F	CAP-A8-A5-2
		5	SFC-A81A51-0105-F	SFC-A83A51-0105-F		SFC-A82A52-0105-F	SFC-A84A52-0105-F	
		10	SFC-A81A51-0110-F	SFC-A83A51-0110-F		SFC-A82A52-0110-F	SFC-A84A52-0110-F	
	BD3 系列 BD3 series	3	SFC-A81A41-0103-F	SFC-A83A41-0103-F	CAP-A8-A4-1	SFC-A82A43-0103-F	SFC-A84A43-0103-F	CAP-A8-A4-3
		5	SFC-A81A41-0105-F	SFC-A83A41-0105-F		SFC-A82A43-0105-F	SFC-A84A43-0105-F	
		10	SFC-A81A41-0110-F	SFC-A83A41-0110-F		SFC-A82A43-0110-F	SFC-A84A43-0110-F	
60/80 机座 60mm/80mm frame L10	CDHD2S-RO 系列 CDHD2S-RO series	3	SFC-A91A51-0103-F	SFC-A93A51-0103-F	CAP-A9-A5-1	SFC-A92A52-0103-F	SFC-A94A52-0103-F	CAP-A9-A5-2
		5	SFC-A91A51-0105-F	SFC-A93A51-0105-F		SFC-A92A52-0105-F	SFC-A94A52-0105-F	
		10	SFC-A91A51-0110-F	SFC-A93A51-0110-F		SFC-A92A52-0110-F	SFC-A94A52-0110-F	
	BD3 系列 BD3 series	3	SFC-A91A41-0103-F	SFC-A93A41-0103-F	CAP-A9-A4-1	SFC-A92A43-0103-F	SFC-A94A43-0103-F	CAP-A9-A4-3
		5	SFC-A91A41-0105-F	SFC-A93A41-0105-F		SFC-A92A43-0105-F	SFC-A94A43-0105-F	
		10	SFC-A91A41-0110-F	SFC-A93A41-0110-F		SFC-A92A43-0110-F	SFC-A94A43-0110-F	
100/130/180 机座所有机型 100mm/130mm/180mm frame All models	CDHD2S-RO 系列 CDHD2S-RO series	3	SFC-AH3A51-0103-F		CAP-AH-A5-1	SFC-AH4A52-0103-F		CAP-AH-A5-2
		5	SFC-AH3A51-0105-F			SFC-AH4A52-0105-F		
		10	SFC-AH3A51-0110-F			SFC-AH4A52-0110-F		
	BD3 系列 BD3 series	3	SFC-AH3A41-0103-F		CAP-AH-A4-1	SFC-AH4A43-0103-F		CAP-AH-A4-3
		5	SFC-AH3A41-0105-F			SFC-AH4A43-0105-F		
		10	SFC-AH3A41-0110-F			SFC-AH4A43-0110-F		

东菱伺服系统
产品定位
Product positioning of
Dorna servo systems







DS3 系列电机命名规则
DS3 series motor naming rules

DS3 P- 08 A S- □□-□□□□

1 2 3 4 5 6

P
1 伺服驱动器系
1 Servo drive series

记号 Mark	规格 Specification
P	脉冲型 Pulse edition
E	EtherCAT

08
2 驱动器功率
2 Drive power

记号 Mark	规格 Specification
4	400W
8	750W
10	1.0KW
15	1.5KW
20	2KW
30	3KW

A
3 额定输入电压
3 Rated input voltage

记号 Mark	规格 Specification
A	220V
B	380V

S
4 编码器接口
4 Encoder interface

记号 Mark	规格 Specification
S	串行编码器接口 Serial encoder interface

□□
5 非标规格
5 Non-standard specifications

记号 Mark	规格 Specification
[空白] [Blank]	通用规格 General specifications
DB	动态制动 Dynamic brake

□□□□
6 工厂代码
6 Factory code

记号 Mark	规格 Specification
[空白] [Blank]	标准型 Standard edition

DS3E

伺服驱动器
Servo drive



开环力控
Open-loop pressure control

350% 峰值过载
350% peak overload

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

2.1kHZ
速度环响应带宽
2.1kHZ speed loop response bandwidth

搭配 20bit/23bit 编码器
20-bit/23-bit encoder

隐藏式电池仓，连接线整洁稳定
Concealed battery compartment for neat and secure cable connections

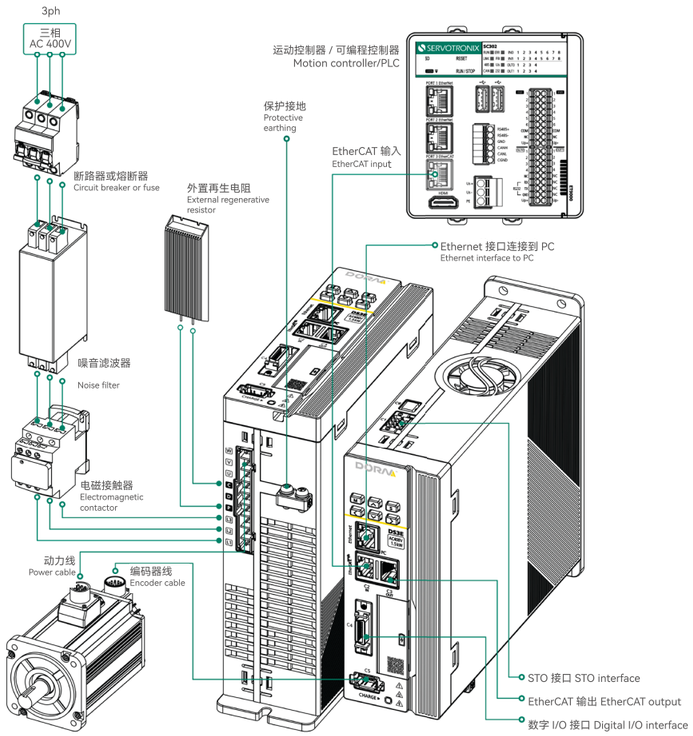
强弱电分离设计，因为 EMC 问题引起的莫名其妙故障会显著降低
Separated strong and weak current design, significantly reducing unexplained faults caused by EMC issues

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
Small displacement and no vibration during the tuning process, with no damage to materials; parameter tuning based on mechanical model frequency domain analysis

六按键操控面板，减少操作步骤且手感舒适
Six-key control panel, less operating steps and better operation comfort

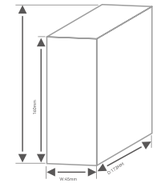
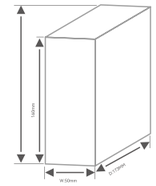
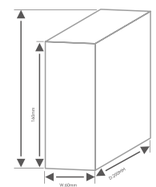
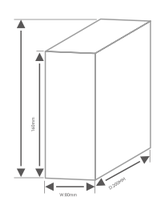
专家模式，通过 HDM 扫频建模，让控制更加得心应手
Expert Mode with modeling through HDM frequency sweep, making control more effortless

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
This wiring diagram is for only one model in this series. For wiring diagrams of other models, please refer to the User Manual

DS3E 功率规格与尺寸
DS3E power specifications and dimensions

型号 Model	功率 Power	主电路输入电源 Main circuit input power supply	连续电流 (Arms) Continuous current (Arms)	峰值电流 (Arms) Peak current (Arms)	宽 x 高 x 深 (mm) Dimensions (width × height × depth) (mm)
DS3E-02AS	200	1ph AC 200V-240V +10%~-10%，50/60Hz	1.6	5.8	
DS3E-04AS	400	1ph AC 200V-240V +10%~-10%，50/60Hz	2.5	9.6	
DS3E-08AS	750	1ph AC 200V-240V +10%~-10%，50/60Hz	4.5	16.65	
DS3E-10AS	1000	3ph AC 220V +10%~-10%，50/60Hz	6.5	22.05	
DS3E-10BS	1000	3ph AC 380V-440V +10%~-10%，50/60Hz	3.5	9.28	
DS3E-15BS	1500	3ph AC 380V-440V +10%~-10%，50/60Hz	5.4	14	
DS3E-15AS	1500	3ph AC 220V +10%~-10%，50/60Hz	10	26.5	
DS3E-20AS	2000		11.6	32	
DS3E-20BS		3ph AC 380V-440V +10%~-10%，50/60Hz	7.5	19.88	
DS3E-30BS	3000	3ph AC 380V-440V +10%~-10%，50/60Hz	11.9	29.75	

DS3E 通用规格
DS3E general specifications

特性 Features		规格 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 method	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 Performance	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, speed observer
	参考命令 Reference command	EtherCAT, VarCom
位置控制 Position control	性能 Performance	更新速率 125 μs（8 kHz） Update rate 125 μs (8 kHz)
	控制方式 Control method	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 brake, motor regenerative brake
用户交互 User interaction	操作面板 Control panel	6 位按键，LED 显示 6-key keypad, LED display
安全控制 * Safety control*	STO	选配 安全转矩关断 Safe Torque Off (STO) (optional)
控制功能 Control functions	电机 Motor	弱磁控制算法 Field weakening control algorithm
	陷波滤波器 Notch filter	5 路陷波滤波器 5 notch filters
	前馈功能 Feedforward	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	可使用（位置 / 转矩） Available (position/torque)
	转矩限制切换功能 Torque limit switching	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 Improved HF vibration suppression effect
高速数字输入 High-speed digital input	通道数量 Number of channels	2
普通数字输入 Standard digital input	通道数量 Number of channels	3
普通数字输出 Standard 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: Profile Position (pp), Cyclic Synchronous Position (csp)
		速度控制：轮廓速度控制 (pv)、周期速度控制 (csv) Speed control: Profile Velocity (pv), Cyclic Synchronous Velocity (csv)
		转矩控制：轮廓转矩控制 (tq)、周期转矩控制 (cst) Torque control: Profile Torque (tq), Cyclic Synchronous Torque (cst)
		回零模式 (hm) Homing mode (hm)
		上述模式通过 EtherCAT 通信指令切换 Mode switching via EtherCAT communication commands
环境规格 Environmental specifications	保护功能 Protection functions	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 brake (hardware) undervoltage/overvoltage, overcurrent, drive and motor overtemperature protections
	合规 Compliance	CE 指令：EN61800-3,EN61800-5-1 CE Directives: 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° C to 45° C (no derating required), 45° C to 55° C (derating required)
		存储温度 -20 ~ 65° Storage temperature: -20 to 65° C
		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。 Altitude: <1,000m, as per the spacing requirements specified in IEC 61800-5-1.
		振动：5.88m/s2，10Hz-60Hz Vibration: 5.88 m/s², 10-60 Hz
	工作条件 Operating conditions	防护等级：IP20 Protection rating: IP20
		污染等级：IEC 60664-1 标准 2 级 Pollution degree: IEC 60664-1, 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 the product in an environment with corrosive or flammable gases, water, oil or chemicals, dust (including iron powder), and salt

典型行业应用
Typical industry applications

锂电行业 Lithium battery industry



锂电模切机
Lithium battery 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。
For lithium battery electrode plate cutting, the high-speed motor and cam combination mechanism enables the electrode plate to be cut stably at high speeds and high cycle rates, and after long-term operation, the motor temperature is stabilized at 43.5° C and the drive temperature at 38.5° C, with debugging performance and functions meeting customer requirements.

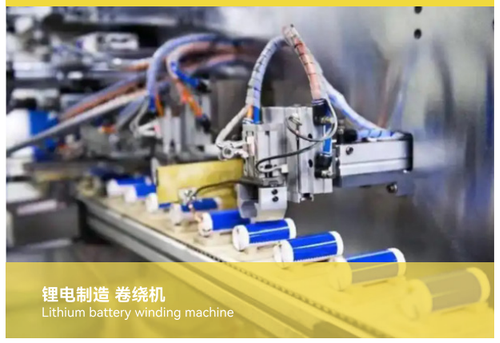
核心工位 Core station

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: die-cutting axis
Structure: motor + cam structure, where circular motion is converted into vertical motion by the cam to cut the separators and electrode plates

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%。
Max motor speed 2,000 rpm
Motor speed at max cycle rate: about 930 rpm; monitored motor load rate: 35%.

锂电行业 Lithium battery industry



锂电制造 卷绕机
Lithium battery 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 plates and separators are continuously winded to form a lithium battery cell, using a circular or square winding mandrel structure.

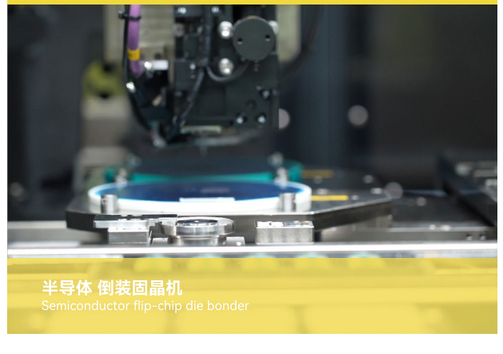
核心工位 Core station

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
Winding mandrel axis, unwinding axis, plate feeding/cutter axis, pre-winding deviation correction axis
Winding mandrel axis: speed fluctuation to be controlled within ±2% during engagement with cam (for square winding, high requirements are posed for the speed stability and current fluctuation during acceleration and deceleration phases of prismatic cells turning at right angles)
Unwinding axis: switching between speed and torque modes (it primarily operates in speed mode, which poses high requirements for speed stability and servo bandwidth)

性能表现 Performance

张力波动 <=±3% 卷绕对齐度：±0.2mm1000mm/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: ±0.2 mm
Electrode plate cutting position accuracy at a flying shear speed of 1,000 mm/min: ±0.5 mm
Winding linear velocity fluctuation: < ±1%; max winding linear speed with a circular winding mandrel structure: 2,000 mm/s

半导体行业 Semiconductor industry



半导体 倒装固晶机
Semiconductor flip-chip die bonder

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。
The LED die bonder has 3 loading/unloading stations. It was previously equipped with a stepper motor, which has such shortcomings as low speed and high motor temperature rise, and cannot meet the UPH 60K requirement.

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
Axis: vertical transport axis, originally configured with a stepper motor
Structure: synchronous conveyor belt + Z-axis ball screw

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。
Travel: 300 mm; round trip duration: 1s; max motor speed: 3,000 rpm;
Temperature of motor at 25% load after 2 hours of continuous cyclic motion: stabilized at 36° C (at room temperature of 27° C);
Real-time motor positioning accuracy monitoring, ensuring fast and precise positioning.

DS3P

伺服驱动器
Servo drive



转矩 3.5 倍过载
Torque overload capacity: 3.5 times

品质稳定调试简单
Stable quality and simple debugging

功率
Power
0.1kW~3kW

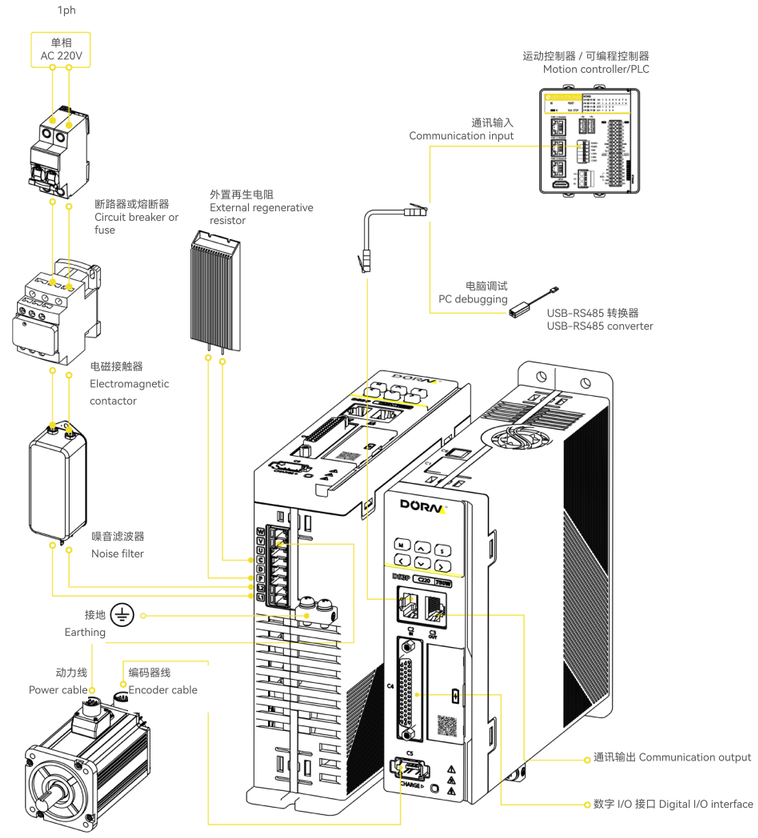
搭配 20bit/23bit 绝对值编码器
20-bit/23-bit absolute encoder

可设置 4 级陷波滤波器
4-stage notch filter configuration allowed

缩短定位整定时间
Reduced positioning and tuning time

拥有抑制外部扰动功能
External disturbance suppression capability

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
This wiring diagram is for only one model in this series. For wiring diagrams of other models, please refer to the User Manual

DS3P 通用规格
DS3P general specifications

基本规格 Basic specifications			DS3P
控制方式 Control method			IGBT PWM 控制，正弦波电流驱动方式 IGBT PWM control, sine wave current drive method
性能 Performance	速度环频率响应 Speed loop frequency response		2.1kHz
	速度控制范围内 Within the speed control 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） 1:5000 (the lower limit of the speed control range is the condition where the motor does not stop under rated torque and load)
	速度波动率 Speed fluctuation rate	负载波动 Load fluctuation	0~100% 负载时：±0.5%（额定转速时） At 0~100% load: ±0.5% (at rated speed)
		电压波动 Voltage fluctuation	额定电压 ±10%：0.5%（额定转速时） Rated voltage ±10%: 0.5% (at rated speed)
		温度波动 Temperature fluctuation	25±25°C：±0.5% 以下（额定转速时） At 25±25° C: ±0.5% or less (at rated speed)
	转矩控制精度（再现性） Torque control accuracy (repeatability)		±2%
	软起动时间设定 Soft start time setting		0~10s（可分别设定加速与减速） 0~10 s (separate setting for acceleration and deceleration allowed)
输入输出信号 Input & output signal	编码器分频脉冲输出 Encoder frequency division 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, with arbitrary frequency division
	顺控输入信号 Sequential control input signal	可分配的输入信号 Assignable input signal	7 点 7 points 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 正向驱动禁止输入（POT） Positive drive inhibit input (POT) 负向驱动禁止输入（NOT） Negative drive inhibit input (NOT) 偏差计数器清除输入（CLR） Deviation counter clear input (CLR) 报警清除（A-RST） Alarm reset (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 Assignment and positive/negative logic change supported for above signals
	顺控输出信号 Sequential control output signal	可分配的输出信号 Assignable output signal	5 点 5points 报警信号 (ALM) Alarm signal(ALM) Z 冲集电极信号 (CZ) Z-pulse collector signal(CZ) 伺服准备好 (S-RDY) Servo ready (S-RDY) 定位完成信号 (COIN) Positioning complete signal (COIN) 外部制动器解除信号 (BK) External brake release signal(BK) 可进行上述信号的分配以及正 / 负逻辑的变更 Assignment and positive/negative logic change supported for above signals
通讯功能 Communication function	485 通讯 RS-485 communication	1：N 通信 1: N communication	使用中继的情况下，最大可为 N=31 站 Max N=31 if a trunk is used
		轴地址设定 Axis address setting	通过参数设定 Setting via parameters
		连接设备 Connected devices	电脑、上位机 PC, upper computer
	电脑通讯 PC communication	通讯接口 Communication interface	RS485
显示按键功能 Display and key functions			LED 显示，6 个按键 LED display, 6-key keypad
动态制动器（DB） Dynamic brake (DB)			在主回路电源 OFF Activation conditions: main loop power OFF; 伺服报警 Servo alarm; 伺服 OFF Servo OFF; 超程（OT）时动作 Overtravel (OT)
再生处理 Regenerative processing			内置再生电阻器或外置再生电阻器 Built-in regenerative resistor or external regenerative resistor
超程（OT）防止功能 Overtravel (OT) protection			POT、NOT 输入动作时减速停止或者自由运行停止 Deceleration stop or coast-to-stop when POT or NOT is activated
保护功能 Protection functions			过电流、过电压、欠电压、过载、再生故障 Overcurrent, overvoltage, undervoltage, overload, regeneration fault
位置控制 Position control	前馈补偿 Feedforward compensation		0~100%（设定单位：1%） 0-100% (unit: 1%)
	定位完成宽度设定 Positioning complete width setting		0~65565 个编码器单位 0-65565 encoder units
	输入信号 Input signal	输入脉冲形态 Input pulse form	差分输入，集电极开路 Differential input, open collector
		最大输入脉冲频率 Max input pulse frequency	差分输入：高速最大 4Mpps，脉宽不能低于 0.125us Differential input: Max 4 Mpps for high speed, pulse width ⩾ 0.125 us 集电极开路：最大 200Kpps，脉宽不能低于 2.5us。 Open collector: Max 200 Kpps, pulse width ⩾ 2.5 us.
		清除信号 Clear signal	清除偏差脉冲集电极开路 Clear deviation pulse and open collector
	内部设定位置控制 Internal setting position control	位置选择 Position selection	使用 DI 信号组合实现第 0-15 段位置选择。（可设定其他端子为此功能） Selection of positions in segments 0-15 via DI signal combinations (this function can be set to other terminals)
速度控制 Speed control	内部设定速度控制 Internal setting speed control	软起动时间设定 Soft start time setting	0~10s（可分别设定加速与减速） 0~10 s (separate setting for acceleration and deceleration allowed)
		速度选择 Speed selection	使用外部 IO 信号输入选择 Selection via external IO signal input
转矩控制 Torque control	内部设定转矩控制 Internal setting torque control	转矩选择 Torque selection	使用外部 IO 信号输入选择 Selection via external IO signal input
其他功能 Other functions	减振控制 Vibration suppression control		具备高频、中频、低频三种特征频率共振抑制功能。 Suppression of resonance of high frequency, medium frequency, and low frequency
	自动调整 Auto tuning		具备 HDM/PDFF 增益调整方式。 HDM/PDFF gain adjustment
	自适应陷波滤波器 Adaptive notch filter		具有 5 个陷波器，50Hz~4000Hz，其中 2 个可自适应设置 5 notch filters of 50 Hz to 4000 Hz, 2 of which can be adaptively set

DS3P 环境规格
DS3P environmental specifications

DS3P	
保护等级 Protection rating	防护等级：IP20 污染等级：IEC60664-12 级 请勿在暴露于腐蚀性或易燃气体、水、油、化学品、灰尘（包括铁粉）和盐的环境中使用 IP20 Pollution degree: IEC 60664-1, Level 2 Do not use the product in an environment with corrosive or flammable gases, water, oil, chemicals, dust (including iron powder), and salt
工作温度 Operating temperature	0°C至 45°C，无需降额 0° C to 45° C (no derating required)
	45°C至 55°C，需降额 45° C to 55° C (derating required)
存储温度 Storage temperature	-20°C至 70°C -20° C to 70° C
湿度 Humidity	10% 至 90%（无冷凝） 10% to 90% (no condensation)
海拔 Altitude	<1000m，根据 IEC61800-5-1 <1000 m, according to IEC 61800-5-1
振动 Vibration	10m/s²，10-150Hz
保护功能 Protection functions	包括但不限于：断电动态制动、低压 / 过压、过流、驱动器和电机过热、电机过载、驱动器过载、反馈丢失、参数未配置、电路故障。 Including but not limited to: Post-outage dynamic braking, undervoltage/overvoltage, overcurrent, drive and motor overtemperature, motor overload, drive overload, feedback loss, forgotten parameter setting, and circuit fault protections.

DS3P 电器规格
DS3P electrical specifications

规格 Specification		DS3P-02AS	DS3P-04AS	DS3P-08AS	DS3P-10BS	DS3P-15BS	DS3P-20BS	DS3P-30BS
驱动器功率 Drive power		200W	400W	750W	1000W	1500W	2000W	3000W
功率电路输入 L1、L2、（L3） Power circuit inputs L1, L2, (L3)	输入电压 ±10% Input voltage ±10%	220	220	220	380	380	380	380
	线频率（Hz） Line frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60
	交流输入 AC input	单相 1ph	单相 1ph	单相 1ph	三相 3ph	三相 3ph	三相 3ph	三相 3ph
	连续电流（单相 Arms） Continuous current (1ph, Arms)	2.3	4	7.9	2.4	3.6	5.6	8
	线熔断器（FRN-R、LPN，或同等产品）（A） Line fuse (FRN-R, LPN, or equivalent) (A)	4	6	16	15	15	15	20
驱动器输出 Drive output	连续输出电流（Arms） Continuous output current (Arms)	1.60	2.50	4.50	3.50	5.40	7.50	11.9
	峰值输出电流（Arms） Peak output current (Arms)	5.80	9.60	16.65	9.28	14.00	19.88	29.75
线缆规格 Cable specification	控制电路（AWG）（3 米以下） Control circuit (AWG) （＜3 m）	24–26	24–26	24–26	24–26	24–26	24–26	24–26
	主电路电动机线路（AWG） Main circuit motor line (AWG)	20	18	16	16	16	16	14
	主电路交流输入（AWG） Main circuit AC input (AWG)	20	18	16	16	16	16	14
外部再生电阻 External regenerative resistor	最小电阻（Ω） Min resistance (Ω)	50	40	40	80	60	45	40
	最大电流（A） Max current (A)	8	10	10	10	13.3	17.8	20
应用信息 Application	母线电容量（μF） Bus capacitance (μF)	660	660	940	340	340	500	500

典型行业应用
Typical industry applications

纺织行业 Textile industry



纺织行业 经编机
Textile industry: warp knitting machine

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
An optimized eccentric linkage mechanism, an electronic multi-stage multi-speed let-off and electronic take-up mechanism, and a Jacquard patterning mechanism are adopted to produce tubular and fully-fashioned knitwear, 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: 6-10 axes including electronic let-off axis, roller axis and shogging axis to complete fabric weaving

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. Drive: 310VDC power supply input, and instantaneous power-off delay function (common bus)
2. Low temperature rise of motor after long-time unidirectional operation at a high ambient temperature, and high resistance of encoder to oil stains
3. High yarn tension control
4. Stable quality, high reliability

食品行业 Food industry



食品行业 食品包装机
Food industry: Food packaging machine

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
A packaging machine is designed to package products for purpose of protection and aesthetics. Main packaging machine types include pillow-type packaging machine, vertical packaging machine, medium-bag packaging machine, and pre-made pouch packaging machine

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: cutter axis, film feeding axis, and material feeding axis for foot packaging and heat sealing

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. Integrated motor potting process for robust performance and high overload capacity
3. Stable quality, high reliability

木工行业 Woodworking industry



木工行业 木工开料机
Woodworking industry: wood cutting machine

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 the woodworking production line, the cutting machine integrates processes such as automatic loading, panel cutting, engraving, drilling and milling, and automatic unloading, ensuring uninterrupted, smooth, and efficient operations to maximize productivity.

核心工位 Core station
轴位：X 轴一套、龙门 Y 轴两套、Z 轴一套
Axis: one X-axis, two gantry Y-axes, and one 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 and high response, providing customers with a full set of woodworking cutting machine features such as loading/unloading, multiple main axes, dowelling jig, and automatic tool change, to meet processing requirements like high-speed, high-precision positioning and multi-axis interpolation trajectory control
2. Integrated motor potting process, offering a good resistance to oil stains, and an overload capacity of 3.5 times
3. Stable quality, high reliability

DM3 系列电机命名规则
DM3 series motor naming rules

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

1 系列号
1 Series

符号 Mark	含义 Meaning
DM	DM 系列 DM series

2 代系号
2 Generation

符号 Mark	含义 Meaning
3	第 3 代 3rd generation

3 性能类别
3 Performance category

符号 Mark	含义 Meaning
S	标准型（光编） Standard edition (optical encoder)
E	经济型（磁编） Economical edition (magnetic encoder)

4、12：连接符号，无特殊含义
4, 12: Connector, with no special meaning

5 电机类型（结构类型）
5 Motor type (construction)

符号 Mark Mark	含义 Meaning
L	小惯量 高速电机 Low-inertia high-speed motor
M	中惯量 高速电机 Medium-inertia high-speed motor
G	中惯量 大转矩电机 Medium-inertia high-torque motor

6 额定功率
6 Rated power

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

7 电压等级
7 Voltage class

符号 Mark	规格 Specification
A	220V
B	380V

8 电磁设计序号
8 Electromagnetic design serial number

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

9 机座号
9 Frame size

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

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

符号 Mark	规格 Specification
S	带油封 无制动器 W/ oil seal, w/o brake
E	带油封 带制动器 W/ oil seal, w/ brake
N	无油封 无制动器 W/o oil seal, w/o brake
B	无油封 带制动器 W/o oil seal, w/ brake

11 编码器配置
11 Encoder configuration

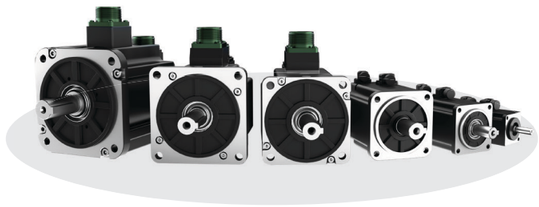
符号 Mark	规格 Specification
T	光编：23bit 单圈分辨率 +16bit 多圈计数（使用 23bit 多摩川数据协议） Optical encoder: 23-bit single-turn resolution encoder + 16-bit multi-turn count encoder (The 23-bit Tamagawa data protocol is used)
M	磁编：20bit 单圈分辨率 +16bit 多圈计数（使用 23bit 多摩川数据协议） Magnetic encoder: 20-bit single-turn resolution encoder + 16-bit multi-turn count encoder (The 23-bit Tamagawa data protocol is used)
G	磁编：20bit 单圈分辨率（使用 23bit 多摩川数据协议） Magnetic encoder: 20-bit, single-turn, resolution (The 23-bit Tamagawa data protocol is used)

13 定制代码
13 Customization code

符号 Mark	规格 Specification
空 blank Blank	标准品（标准结构、标准键、标准轴） Standard product (standard structure, standard keyway, standard shaft)
**	其它定制代码，详参定制产品规格书。 For other customization codes, refer to the specifications of custom products.

备注：仅用于说明产品型号的字符含义，不代表所有字符组合都存在产品。
Note: The example given herein is only for explaining the meaning of the characters, and does not suggest that a model designation contains all the characters listed herein.

DM3 通用基础型伺服电机
DM3 basic servo motor



功率
Power
0.1kw -1.8kw 220v
0.85kw-1.8kw 380v

包含小惯量、中惯量品类机型
Including motors of low inertia and medium inertia

IP65 外壳防护等级
IP65

搭配 20bit/23bit 绝对值编码器
20-bit/23-bit absolute encoder

6000rpm 最高转速
Max speed 6,000 rpm

3.5 倍最高过载能力
Max overload capacity up to 3.5 times

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

符合 CE 认证
CE certified

选型配置

Product selection and configuration

电机类型 Motor type	机座号 Frame size	额定功率 (kW) Rated power (kW)	电压等级 (VAC) Voltage class (VAC)	转矩 N·m (额定 / 峰值) Torque N·m (rated/peak)	转速 rpm (额定 / 最高) Speed rpm (rated/max)	惯量值 kg*cm2 (无制动 / 带制动) Inertia kg*cm^2 (w 2/o brake / w/ brake)	电流 Arms (额定 / 峰值) Current Arms (rated/peak)	油封 Oil seal	制动器 Brake	20bit 磁编 单圈绝对值 20-bit magnetic encoder - single-turn, absolute	20bit 磁编 多圈绝对值 20-bit magnetic encoder - multi-turn, absolute	23bit 光编 多圈绝对值 23-bit optical encoder - multi-turn, absolute	推荐驱动器 Recommended drive
L 小惯量 高速电机 **L** Low-inertia high-speed motor	40	0.1	220	0.32/1.12	3000/6000	0.044/0.046	1.24/4.25	×	√	DM3E-L01A004BG	DM3E-L01A004BM	DM3S-L01A004BT	DS3 □ -02AS
								×	×	DM3E-L01A004NG	DM3E-L01A004NM	DM3S-L01A004NT	
M 中惯量 高速电机 **M** Medium- inertia high-speed motor	60	0.2	220	0.64/2.30	3000/6000	0.24/0.25	1.42/5.80	√	√	DM3E-M02A006EG	DM3E-M02A006EM	DM3S-M02A006ET	DS3 □ -02AS
								√	×	DM3E-M02A006SG	DM3E-M02A006SM	DM3S-M02A006ST	
		0.4	220	1.27/4.45	3000/6000	0.47/0.48	2.40/9.60	√	√	DM3E-M04A006EG	DM3E-M04A006EM	DM3S-M04A006ET	DS3 □ -04AS
								√	×	DM3E-M04A006SG	DM3E-M04A006SM	DM3S-M04A006ST	
		0.6	220	1.91/6.69	3000/6000	0.68/0.69	3.95/16.60	√	√	DM3E-M06A006EG	DM3E-M06A006EM	DM3S-M06A006ET	DS3 □ -08AS
								√	×	DM3E-M06A006SG	DM3E-M06A006SM	DM3S-M06A006ST	
	80	0.75	220	2.39/8.37	3000/6000	1.46/1.51	4.20/16.90	√	√	DM3E-M08A008EG	DM3E-M08A008EM	DM3S-M08A008ET	DS3 □ -08AS
								√	×	DM3E-M08A008SG	DM3E-M08A008SM	DM3S-M08A008ST	
		1.0	220	3.18/11.13	3000/6000	2.00/2.05	5.60/23.00	√	√	DM3E-M10A008EG	DM3E-M10A008EM	DM3S-M10A008ET	DS3 □ -10AS
								√	×	DM3E-M10A008SG	DM3E-M10A008SM	DM3S-M10A008ST	
G 中惯量 大转矩电机 G Medium- inertia high torque motor	130	0.85	220	5.39/13.50	1500/4500	12.21/14.22	5.73/16.28	√	√	DM3E-G09A013EG	DM3E-G09A013EM	DM3S-G09A013ET	DS3 □ -10AS
								√	×	DM3E-G09A013SG	DM3E-G09A013SM	DM3S-G09A013ST	
			380	5.39/13.50	1500/4500	12.21/14.22	3.3/8.85	√	√	DM3E-G09B013EG	DM3E-G09B013EM	DM3S-G09B013ET	DS3 □ -10BS
								√	×	DM3E-G09B013SG	DM3E-G09B013SM	DM3S-G09B013ST	
		1.3	220	8.28/20.85	1500/4500	18.03/20.05	9.7/26.09	√	√	DM3E-G13A013EG	DM3E-G13A013EM	DM3S-G13A013ET	DS3 □ -15AS
								√	×	DM3E-G13A013SG	DM3E-G13A013SM	DM3S-G13A013ST	
			380	8.28/20.85	1500/4500	18.03/20.05	5.15/13.35	√	√	DM3E-G13B013EG	DM3E-G13B013EM	DM3S-G13B013ET	DS3 □ -15BS
								√	×	DM3E-G13B013SG	DM3E-G13B013SM	DM3S-G13B013ST	
		1.8	220	11.5/28.75	1500/4500	23.94/25.95	11.6/31.35	√	√	DM3E-G18A013EG	DM3E-G18A013EM	DM3S-G18A013ET	DS3 □ -20AS
								√	×	DM3E-G18A013SG	DM3E-G18A013SM	DM3S-G18A013ST	
			380	11.5/28.75	1500/4500	23.94/25.95	7.14/19.12	√	√	DM3E-G18B013EG	DM3E-G18B013EM	DM3S-G18B013ET	DS3 □ -20BS
								√	×	DM3E-G18B013SG	DM3E-G18B013SM	DM3S-G18B013ST	

DS3P 系列端子

DS3P series terminals

型号 Model	控制端子 Control terminal	产品名称 Product name	规格型号 Specification and model	料号 P/N	是否出厂配置 Factory configured?	电源端子 Power terminal	产品名称 Product name	规格型号 Specification and model	编码 Code	是否出厂配置 Factory configured?
DS3P-02AS DS3P-04AS DS3P-08AS	C2&C3	通讯接口 Communication interface	RJ45+ 超六类网线 RJ45 + CAT 6A Ethernet cable		否 No	P1	电源和电机连接端子 Power and motor connection terminal	SC-T3005008SB0XT-45	11201707001675	是 Yes
	C4	控制器 Controller	24F78-01-05-00	12115000002541	是 Yes					
	C5	编码器 Encoder	SC-06-4	12119400000273	否 No					
DS3P-10BS DS3P-15BS DS3P-20BS DS3P-30BS	C2&C3	通讯接口 Communication interface	RJ45+ 超六类网线 RJ45 + CAT 6A Ethernet cable		否 No	P1	电源和电机连接端子 Power and motor connection terminal	9EDGK-7.5-09P-13-1061Z(H)	11201707002135	是 Yes
	C4	控制器 Controller	24F78-01-05-00	12115000002541	是 Yes					
	C5	编码器 Encoder	SC-06-4	12119400000273	否 No					

动力线或配件包

Power cable or accessory kit

无制动器
W/o brake

DM3 电机型号 DM3 motor model	驱动类型 Drive type	动力线延长线（无制动器款） Power cable extension (w/o brake)			连接器套件包 Connector kit
		长度 （米） Length (m)	高柔线 High-flex cable		
			前出线 Front outlet	后出线 Rear outlet	
L01, M02/04/06	DS3 系列 DS3 series	3	SPC-A61011-0303-F	SPC-A63011-0303-F	前出线：CAP-A6-01-A 后出线：CAP-A6-01-B Front outlet: CAP-A6-01-A Rear outlet: CAP-A6-01-B
		5	SPC-A61011-0305-F	SPC-A63011-0305-F	
		10	SPC-A61011-0310-F	SPC-A63011-0310-F	
		15	SPC-A61011-0315-F	SPC-A63011-0315-F	
		20	SPC-A61011-0320-F	SPC-A63011-0320-F	
M08/10	DS3 系列 DS3 series	3	SPC-A61031-0503-F	SPC-A63031-0503-F	前出线：CAP-A6-03-A 后出线：CAP-A6-03-B Front outlet: CAP-A6-03-A Rear outlet: CAP-A6-03-B
		5	SPC-A61031-0505-F	SPC-A63031-0505-F	
		10	SPC-A61031-0510-F	SPC-A63031-0510-F	
		15	SPC-A61031-0515-F	SPC-A63031-0515-F	
		20	SPC-A61031-0520-F	SPC-A63031-0520-F	
G09/13/18	DS3 系列 DS3 series	3	CBL-PWPH220000A003		CAP-PWPH20000A0
		5	CBL-PWPH220000A005		
		10	CBL-PWPH220000A010		
		15	CBL-PWPH220000A015		
		20	CBL-PWPH220000A020		

带制动器
W/ brake

DM3 电机型号 DM3 motor model	驱动类型 Drive type	动力线延长线（带制动器款） Power cable extension (w/ brake)			连接器套件包 Connector kit
		长度 （米） Length (m)	高柔线 High-flex cable		
			前出线 Front outlet	后出线 Rear outlet	
L01, M02/04/06	DS3 系列 DS3 series	3	SPC-A62021-0403-F	SPC-A64021-0403-F	前出线：CAP-A6-02-A 后出线：CAP-A6-02-B Front outlet: CAP-A6-02-A Rear outlet: CAP-A6-02-B
		5	SPC-A62021-0405-F	SPC-A64021-0405-F	
		10	SPC-A62021-0410-F	SPC-A64021-0410-F	
		15	SPC-A62021-0415-F	SPC-A64021-0415-F	
		20	SPC-A62021-0420-F	SPC-A64021-0420-F	
M08/10	DS3 系列 DS3 series	3	SPC-A62041-0603-F	SPC-A64041-0603-F	前出线：CAP-A6-04-A 后出线：CAP-A6-04-B Front outlet: CAP-A6-04-A Rear outlet: CAP-A6-04-B
		5	SPC-A62041-0605-F	SPC-A64041-0605-F	
		10	SPC-A62041-0610-F	SPC-A64041-0610-F	
		15	SPC-A62041-0615-F	SPC-A64041-0615-F	
		20	SPC-A62041-0620-F	SPC-A64041-0620-F	
G09/13/18	DS3 系列 DS3 series	3	CBL-PWPH220001A003		CAP-PWPH20001A0
		5	CBL-PWPH220001A005		
		10	CBL-PWPH220001A010		
		15	CBL-PWPH220001A015		
		20	CBL-PWPH220001A020		

备注：M08/10 配套动力线缆可以向下兼容 L01、M02/04/06 电机所使用的动力线缆。
Note: The power cable for M08/10 is backward compatible with the power cables used for L01 and M02/04/06 motors.

编码器线或配件包

Encoder cable or accessory kit

单圈绝对值编码器
Single-turn absolute encoder

DM3 电机型号 DM3 motor model	驱动类型 Drive type	编码器线延长线 -单圈绝对值型（无电池） Encoder extension cable – single-turn, absolute (w/o battery)			连接器套件包（无电池） Connector kit (w/o battery)
		长度 （米） Length (m)	高柔线 High-flex cable		
			前出线 Front outlet	后出线 Rear outlet	
L01, L01, M02/04/06/08/10	DS3 系列 DS3 series	3	SFC-A71A41-0103-F	SFC-A73A41-0103-F	CAP-A7-A4-1
		5	SFC-A71A41-0105-F	SFC-A73A41-0105-F	
		10	SFC-A71A41-0110-F	SFC-A73A41-0110-F	
		15	SFC-A71A41-0115-F	SFC-A73A41-0115-F	
		20	SFC-A71A41-0120-F	SFC-A73A41-0120-F	
G09/ 13/18	DS3 系列 DS3 series	3	CBL-FBPH22S301A003		CAP-FBPH2S301A0
		5	CBL-FBPH22S301A005		
		10	CBL-FBPH22S301A010		
		15	CBL-FBPH22S301A015		
		20	CBL-FBPH22S301A020		

多圈绝对值编码器线
Multi-turn absolute encoder cable

DM3 电机型号 DM3 motor model	驱动类型 Drive type	编码器线延长线- 多圈绝对值型（带电池） Encoder extension cable – multi-turn, absolute (w/ battery)			连接器套件包（带电池组件） Connector kit (w/ battery assembly)
		长度 （米） Length (m)	高柔线 High-flex cable		
			前出线 Front outlet	后出线 Rear outlet	
L01, M02/04/06/08/10	DS3 系列 DS3 series	3	SFC-A72A43-0103-F	SFC-A74A43-0103-F	CAP-A7-A4-3
		5	SFC-A72A43-0105-F	SFC-A74A43-0105-F	
		10	SFC-A72A43-0110-F	SFC-A74A43-0110-F	
		15	SFC-A72A43-0115-F	SFC-A74A43-0115-F	
		20	SFC-A72A43-0120-F	SFC-A74A43-0120-F	
G09/13/18	DS3 系列 DS3 series	3	CBL-FBPH22T203A003		CAP-FBPH2T203A0
		5	CBL-FBPH22T203A005		
		10	CBL-FBPH22T203A010		
		15	CBL-FBPH22T203A015		
		20	CBL-FBPH22T203A020		

备注：1.DS3 系列电池组件：型号 BT01，采购编码 17419450001421。
2. 仅使用编码器的多圈计数功能时，才选择带电池的线缆或者连接器套件包。
3.L01、M02/04/06、M08/10 的编码器线连接器套件包不区分前 / 后出线。接电机的连接器包括“端子”、“壳体”两部分，用户自制线缆时，可根据所需出线方向调整“壳体”的朝向即可。索引
Note:
1. DS3 series battery assembly: model BT01, purchase code 17419450001421.
2. A cable or connector kit with a battery needs be selected only when the multi-turn counting function of the encoder is to be used.
3. The encoder cable connector kits for L01, M02/04/06, and M08/10 do not differentiate between front and rear outlets: the motor connector consists of a “terminal” and a “housing”. If the cable made by the user is used, it is only required to adjust the orientation of the “housing” according to the desired outlet direction.