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合作案例
Cooperation Cases



*禾川系统性解决方案广泛应用于多家物流终端分拨中心及网点的系统及设备中

Established in 2011, HCFA is an enterprise, focusing on the R&D, manufacturing, sales and application integration of industrial automation products, and committed to providing core components and system integration solutions for smart factories.

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物流行业解决方案

LOGISTICS INDUSTRY
SOLUTIONS

控制 | 驱动 | 传感 | 机电 | 信息

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智慧禾川 梦想未来

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公司介绍

Business Introduction



浙江禾川科技股份有限公司 (HCFA) 成立于2011年, 是一家专注于工业自动化产品研发、制造、销售及应用集成, 致力于为智慧工厂提高核心部件和系统集成解决方案的企业。

HCFA秉承“成为最具价值的工业自动化核心部件及方案提供商”的企业使命, 服务客户的整体方案需求, 经营业绩取得了几何式增长, 快速成长为工业自动化高端装备及机器人核心部件的主要供应商, 跻身国产第一品牌方阵。

HCFA产品广泛应用于机器人、机械手、光伏电子、3C电子、锂电池、包装机械、木工机械等OEM领域。

Established in 2011, HCFA is an enterprise, focusing on the R&D, manufacturing, sales and application integration of industrial automation products, and committed to providing core components and system integration solutions for smart factories.

Adhering to the corporate vision of "becoming the most valuable industrial automation core components and solutions provider", HCFA has achieved rapid growth in business performance. Now HCFA has become a maior supplier of high-end industrial automation equipment and robots components, and ranks among the domestic top brands.

And these products are widely used in robots, photovoltaic electronics. 3C electronics, lithium batteries, packaging machinery, woodworking machinery and other OEM fields.

愿景 用我们的工作 创造美好的生活
Corporate Vision To create more beautiful life with our hard work

使命 成为最具价值的工业自动化核心部件及方案提供商
Mission To be the most valuable automation core -component and solution provider

核心价值观 创新 诚信 服务
Core Value Innovation, Honesty, Service

服务热线 **400 012 6969**
Service Hotline

Q系列中型PLC-----● 01
Q-series Standard PAC

X3EB伺服解决方案-----● 03
X3EB-series Servo Solution

X3EB多传一体机-----● 05
X3E-series Multi-axis Modular Drive

X6Profinet总线伺服驱动器-----● 09
X6 Profinet bus-type servo drives

SV-X2E伺服驱动器-----● 12
SV-X2E Series Servo Drive

SV-X2/X6 系列电机-----● 13
SV-X2/X6 Series Servo Motor

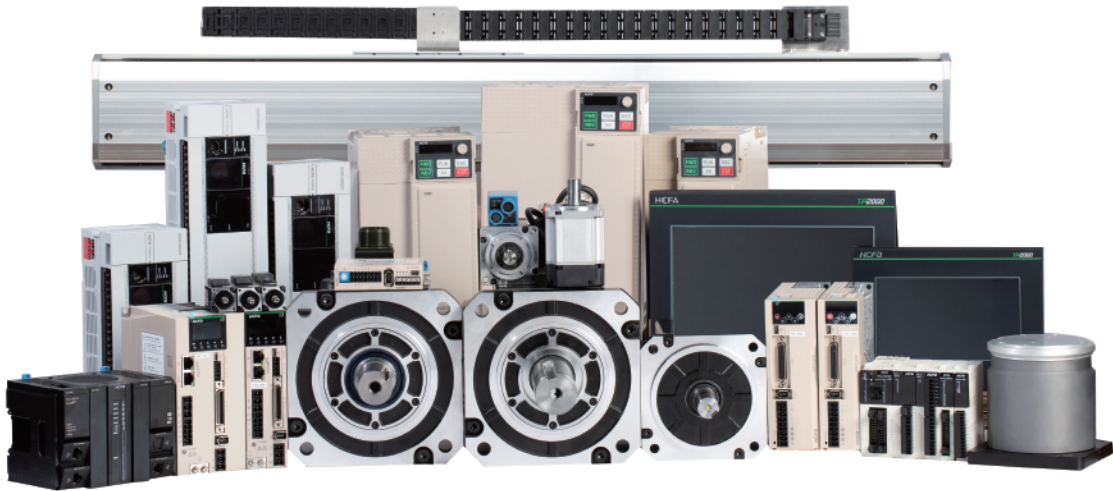
物流专用电动滚筒-----● 15
Electric Roller for Logistics

E380/E220变频器-----● 19
E380/E220 Series Inverters

聚焦物流领域-----● 21
Focusing on Logistics

打造智能物流工业自动化整体解决方案-----● 23
Create the overall solution for intelligent logistics industrial automation

行业应用方案-----● 25
Industry Application Scheme



Q系列中型PAC

高速高配 高易用性 运动控制 通讯兼容

Q-series Standard PAC
High-speed & high-configuration, High ease of use, Motion control, Communication compatibility

我们对于Q1中型控制器的定义是集成了逻辑运算, 运动控制, 可视化界面, 多种通讯于一体的控制设备解决方案。控制系统的大脑, 丰富通讯接口使其进行信息交互更为简便, 纯软件运动控制使其拥有丰富的硬件选择, 图形化的数据采集使其变量监控更为直观。

Q1 standard PACs are the solution to a control device that integrates logical operations, motion control, visualized interfaces, and multiple communications in a single control device. The brain of the control system, rich communication interfaces make information interaction more easier, software motion control enrich the hardware options, and graphical data collection makes the variable monitoring more intuitive.



CPU单元

型号 Model name	类型 Type	描述 Description	功率 Power
HCQ1-1300-D (米黄色版本) HCQ1-1300-D (beige)	CPU单元 CPU Units	基于CODESYS软平台开发的符合于PLC OPEN标准的运动控制器。本体支持8轴脉冲控制, EtherCAT轴推荐最大使用32轴。 The motion controller conforming to the PLC OPEN standard and based on the codesys software platform. The main unit supports 8-axis pulse control, and up to 32 axes are recommended for EtherCAT	36W
HCQ1-1300-D2 (黑色版本) HCQ1-1300-D2 (black)		参考上表 Same as above	36W
HCQ0-1200-D		基于CODESYS软平台开发的符合于PLC OPEN标准的高性价比运动控制器。EtherCAT轴推荐最大使用16轴.不支持本体脉冲控制 The high-performance motion controller conforming to the PLC OPEN standard and based on the codesys software platform. Up to 16 axes are recommended for Ethercat and main unit not support pulse control.	36W
LocalEtherCAT Device	内置耦合器 Built-in coupler	作为本机EtherCAT接口, 可向下扩展本体EtherCAT从站 As a EtherCAT interface, can extend the EtherCAT slave station.	(输出) 16W (output)16W

扩展模块

Extension Modules

名称 Name	型号 Module	简要说明 Description	功率 Power
耦合器模块 Coupler module	HCQX-EC01-D	耦合器模块, 支持将EtherCAT总线转换成Qbus信号 并为后续扩展模块提供工作电流, 最大输出功率16W Coupler module, which supports the conversion of EtherCAT bus into Qbus signal. And provide working current for the extension modules, max. output power 16W	1.68W
数字量输入模块 Digital input module	HCQX-ID16-D	16点数字量输入, 支持源型和漏型输入 16 digital inputs, , support source and sink input	0.78W
数字量输出模块 Digital output module	HCQX-OD16-D	16点晶体管输出, 支持NPN输出 16 output points, transistor type, support NPN output	1.32W
数字量混合模块 Digital Mixing Module	HCQX-MD16-D	混合数字量模块, 8点输入, 支持源型和漏型。8点输出, 支持NPN Digital module, 8 inputs, support PNP/NPN inputs, and 8 outputs, support NPN output	1.03W
模拟量输入模块 Analog input module	HCQX-AD04-D	4通道模拟量输入, 电压最大支持-10V~10V, 电流支持0~20mA输入。电压信号支持单端和差分输入方式 4-ch analog input, support -10~10V, and 0~20mA, Voltage signal supports single-ended and differential input	1.04W
模拟量输出模块 Analog output module	HCQX-DA04-D	4通道模拟量输出, 电压最大支持-10V~10V, 电流支持0~20mA输出 4-ch analog output, support -10~10V, and 0~20mA output	1.06W
温度测量模块 Temperature measuring module	HCQX-TS04-D	4通道温度采集模块, 支持市面上常用热电阻和热电偶。 4-ch temperature measurement, support thermocouple, thermal resistance on the market	1W
4路高速输入(编码器)模块 4-ch high-speed input (encoder) module	HCQX-HC04-D2	4路AB相输入, 24V集电极, 支持锁存 4-ch AB-phase input, 24V open-collector, support latching function	1W
1路步进驱动器模块 1-ch stepper driver module	HCQX-ST01-D2	直接驱动42&57机座, 64step以上, 支持编码器A/B/Z输入 Directly driving 42&57 frame, 64step or more, support encoder A/B/Z input	1W

模块配件

Module accessories

型号 Models	类型 Type	描述 Description	数量 Quantity
暂无 N/A	通讯端子 Communication terminal	在CPU单元数码管灯两侧, 提供通讯接口 Provide communication interface on both sides of CPU unit LED display	2
暂无 N/A	电源端子 Power terminal	有卡扣为CPU单元电源端子, 无卡扣设计为模拟量模块电源端子 Power terminal of the CPU unit, with mounting hook; Power terminal of the analog module: without mounting hook	1

X3EB伺服解决方案

基于EtherCAT总线技术

X3EB-series Servo Solution
Based on EtherCAT bus technology

随着人们对仓储物流配送管理系统的要求越来越高,必须保证快速和可靠性的同时,需要高度的灵活性和可扩展性,对控制和驱动技术提出了不同的要求。禾川的X3-EB总线驱动器搭配禾川Q系列PLC解决方案,可以满足各种性能等级需求,可提供50w~2.5kw的功率范围,实现小型输送控制任务。

With the increasing demand for warehousing logistics distribution management system, it is necessary to ensure the rapidity, reliability, higher flexibility and scalability, so we have higher requirements for the control and drive technology. HCFA X3EB-series bus driver, matching with HCFA Q-series PLC solution, which can meet the requirements of various performance levels. It can provide a power range of 50w~2.5kw to achieve small conveying control.

额定功率

Rated power

- 50W~750W 单相220V
50W~750W single-phase 220V
- 1.0KW~2.5KW 三相220V
1.0KW~2.5KW three-phase 220V



产品特点

Products Features

EtherCAT高速实时总线控制技术, 适合多轴同步控制

EtherCAT high-speed real-time bus control technology, suitable for multi-axis synchronous control

实时增益调整技术, 调试更简单

Real-time gain adjustment, make debugging much easier



可搭配17bit磁编马达,耐震动,耐油污,耐灰尘,大批量市场验证,稳定可靠,行业内高水平磁编码器

Matched with 17bit magnetic encoder, vibration/oil/dust-resistance, more stable and reliable, high-level magnetic encoder in the industry

同时提供脉冲机种和CANopen总线机种,满足不同上位机控制需求

Provide pulse models and CANopen bus models to meet the different control needs

型号说明

Model Identification

SV-X3E B - 075 - A - A 2 - 00 000

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① 产品系列

Series name

② 产品类型

Product type

B EtherCAT总线型
A 标准通用型
N CANopen总线型
B EtherCAT bus type
A Standard type
N CANopen bus type

③ 产品功率

Product power

005 50W
010 100W
020 200W
040 400W
100 1000W
150 1500W
200 2000W
250 2500W

④ 电压规格

Voltage spec

AC220V

⑤ 控制电类型

Control power type

A 交流控制电
A AC control power

⑥ 产品版本

Product version

⑦ 硬件可选规格

Hardware spec

00 无
00 N/A

⑧ 软件自定义标识

Software customization mark

X3E多传一体机

灵巧高效，结构紧凑

X3E-series Multi-axis Modular Drive
Flexible and high-efficient, compact design

X3E多传一体机是禾川新推出的一款小体积、紧凑型的多轴传动一体伺服驱动器，品质完美承接X3E系列衣钵，采用模块设计，具有集成度高，配线简单，安装方便的特点，同时提供EtherCAT和CANopen总线通讯，可以为物流分拣，包裹分离等,多轴传动场合提供了最佳性价比的多轴传动解决方案！

X3E-series multi-axis modular drive is a small and compact multi-axis servo drive newly launched by HCFA, with the features of modular design, high integration, simple wiring and convenient installation. Also providing EtherCAT and CANopen bus communication, which can provide the best cost-effective multi-axis transmission solution for logistics sorting, parcel separation, etc., multi-axis transmission occasions.



产品特点

Product Features

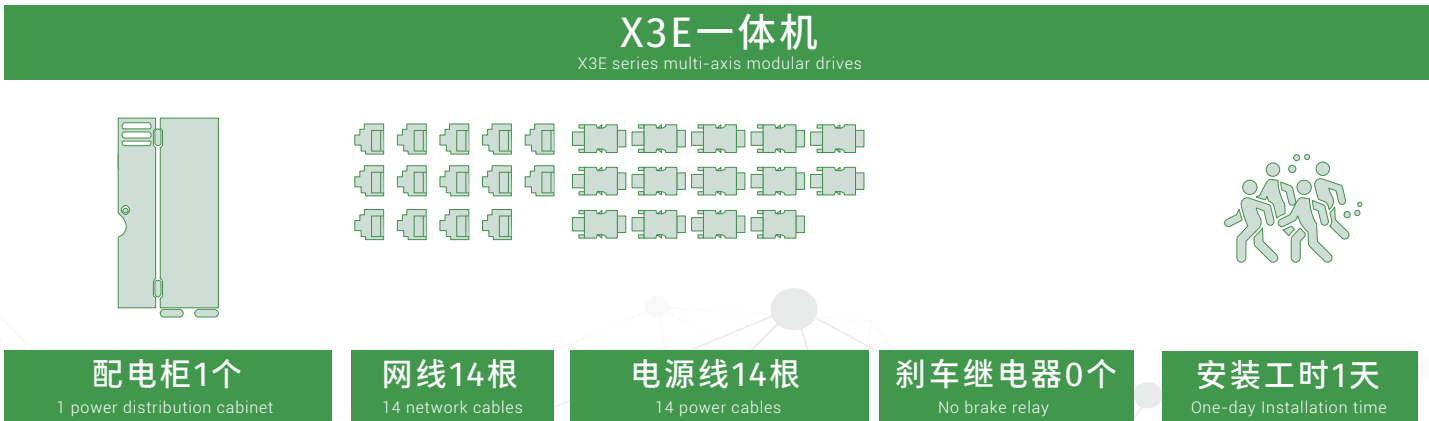
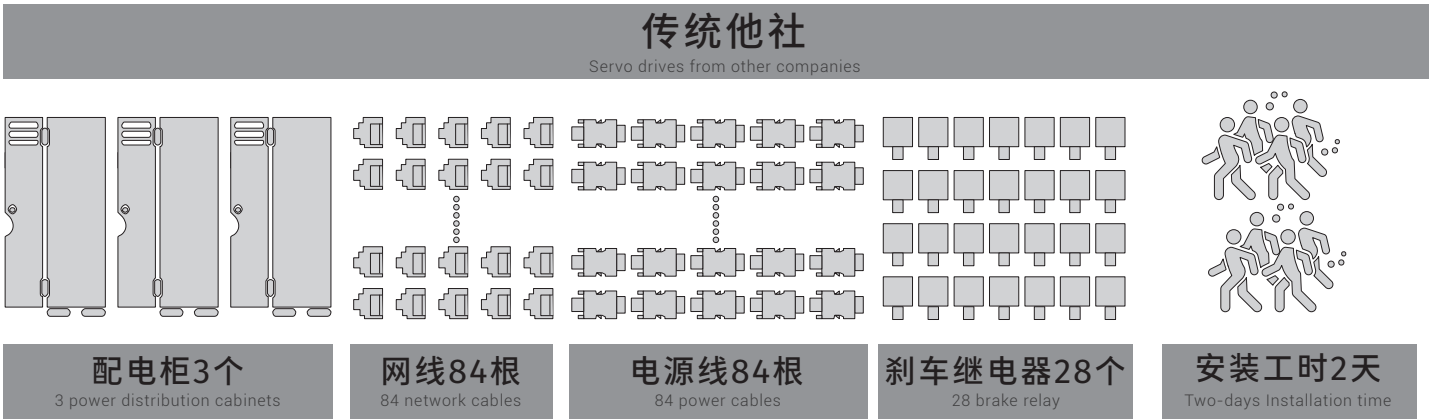
 省空间 Space saved	超高功率密度设计 实现更轻薄体积。同等功率配置下，四合一节省 40% ，六合一节省 50% 。 High-density design to be much lighter and thinner. For the same power configuration, 40% saved for 4-in-one, and 50% saved for 6-in-one.
 省时间 Time saved	模块化设计 积木式组装，降低安装工时，易维护，四合一节省 30% ，六合一节省 50% 。 Modular design, installation man-hours reduced, easy maintenance, 30% saved for four-in-one, and 50% saved for six-in-one.
 省配线 Easy wiring	机柜只需一组电源输入，一根网线控制，布线简单，易维护！ Only need one set of power input, one network cable, simple wiring and easy to maintain!
 省钱 Economical	内置动态制动与抱闸继电器，客户无需安装继电器。同时共直流母线设计，多轴共用一组制动电阻，降低制动频次，能耗节省明显(四合一节省 20% ，六合一节省 30%) Built-in dynamic brake and brake relays, the common DC bus design, and a set of braking resistors for multi-axis, which reduces the braking frequency and saves significant energy consumption(20% saved for 4-in-one and 30% saved for 6-in-one)
 可靠 Reliable	通讯线传导电磁干扰降低，从而整体改善EMC。抗干扰能力强！ Electromagnetic interference reduced and EMC improved. Strong anti-interference ability.

禾川案例

Successful Case

某客户现场84轴伺服控制,原为他社驱动器,因为考虑散热问题间距安装需要3个柜体,现在更换为14台禾川X3E一体机,只需1个柜体安装即可,经济效益显著,具体如下

A customer's on-site 84-axis servo control, originally from another company. Because of the heat dissipation, 3 cabinets were required for installation. Now replaced with 14 HCFA X3E multi-axis modular drives, . Only 1 cabinet is required and the details as follows:

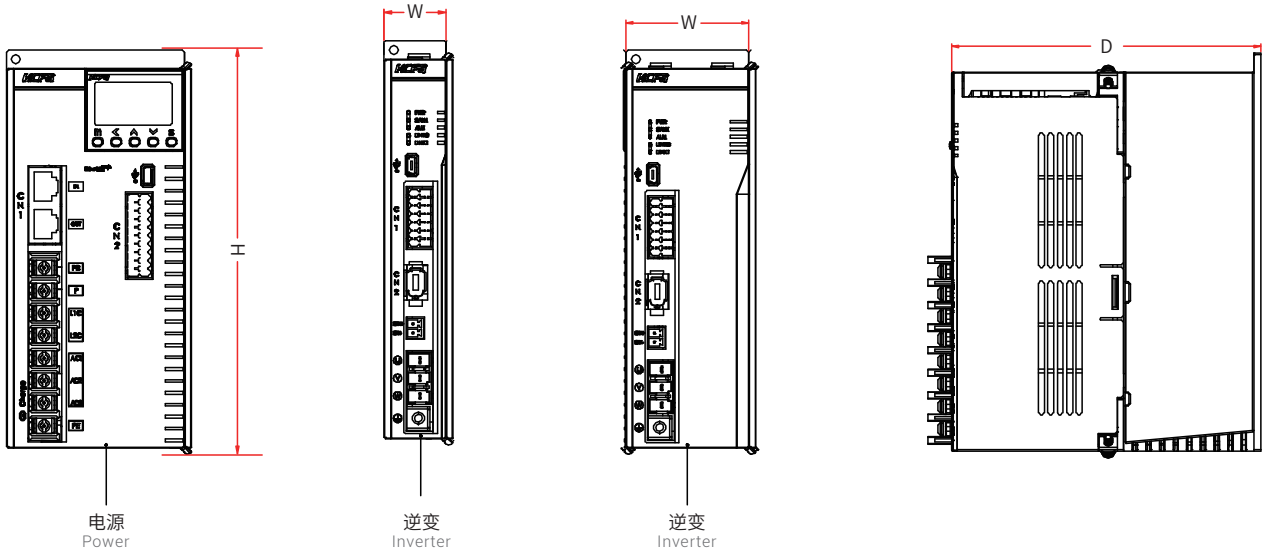


 省空间 Space saved	省2组配电柜 2 power distribution cabinets reduced	 省时间 Time saved	省1天安装工时 1-days Installation time saved	 省配线 Save space	省网线省电源线 Less network cables and power cables
 省钱 Economical	能耗 材料节省 Energy consumption	 可靠 Reliable	抗干扰能力增强 Enhanced anti-interference ability	 省运费 Cost saved	运输成本明显降低 Transportation costs greatly reduced



尺寸图

External Dimensions



逆变单元规格

Spec. for inverter unit

	功率 (W)	尺寸 (W/H/D)	重量 (KG)
Z	100W	26*168*130	0.3
S	400W		
M	1KW		
L	2.5KW	52*168*130	0.7

整流单元规格

Spec. for rectifier unit

	功率 (W)	尺寸 (W/H/D)	重量 (KG)
R	5KW	75*168*130	1.5
P	3KW	52*168*130	1

型号说明

Model identification

SV-X3E B - 1L2M2S4Z - R - A 2 - 00 000

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① 产品系列
Series name

④ 整流单元功率
Power for rectifier unit
R:5KW
P:3KW

⑥ 产品版本
Product version

② 通讯类型
Communication type
B:EtherCAT总线型 N:CANopen总线型
B: EtherCAT bus-type N: CANopen bus-type

⑤ 电源类型
Power type
A:交流控制电
A: AC power

⑦ 硬件版本
Hardware version No.
0:有I/O 1:无I/O
0: With I/O 1: No I/O

③ 逆变单元组合料号举例说明
Example for combination of inverter units

	功率 (W)	数量	合计 (KW)
Z	100W	4	0.4
S	400W	2	0.8
M	1KW	1	1
L	2.5W	1	2.5
		合计 (KW)	4.7

注意：
逆变单元的功率总和应小于整流单元的功率。
单组整流单元原则上搭配不超过8只逆变单元。

Note:
The total power of the inverter unit should be less than the power of the rectifier unit.
In principle, no more than 8 inverter units can be matched with a single group of rectifier units.

⑧ 软件版本
Software version No.

逆变器单元兼容规格说明

Specifications description for inverter unit compatibility

L	2.5KW	M	1KW	S	400W	Z	100W
1.3KW~2.5KW							
X3MA100A (1KW)		1KW					
X3MG085A (850W) X6MG085B (850W) X6MG085A (850W)		X3MH085A (850W)					
		750W-800W					
				200W-400W			
						50W-100W	

除特殊规格马达因为电流原因，驱动器需要放大使用外，其他功率段均向下兼容。
Except for some special servo motors that need to be amplified for use due to the current, they are compatible with the lower power.

X6Profinet总线伺服驱动器

市场定位：

提供基于Profinet总线技术，面向以西门子运动控制为主的，更有竞争力的伺服解决方案！

X6 Profinet bus-type servo drives
Market positioning:
Provide more competitive servo solutions based on Profinet bus technology for Siemens motion control!

禾川SV-X6ER (FR) 伺服，是禾川自动化在X6伺服基础上新开发的基于PROFINET的技术总线伺服。功率范围从50W到7.5kW，可以与S7-200 Smart, S7-1200 ，S7-1500等支持PROFINET总线的上位控制器进行完美配合，实现丰富的运动控制功能。

同时可搭配禾川17bit磁编和高精度23bit绝对值光编码器，最大转速6500rpm的全系列马达产品，为客户提供更有竞争力的运动控制解决方案！

HCFA SV-X6ER (FR) series servo , is a Profinet-based bus servo drive newly developed by HCFA based on X6 servo drives. The power ranges from 50W to 7.5kW, which can be perfectly matched with S7-200 Smart, S7-1200, S7-1500 and other host controllers supporting PROFINET bus to realize rich motion control functions.

At the same time, can match with HCFA 17-bit magnetic encoder and high-precision 23-bit absolute optical encoder, a full range of motor products with a maximum speed of 6500rpm, providing customers with more competitive motion control solutions.



型号说明

Model identification

SV-X6 E R 075 A – A 0 -00 000

① ② ③ ④ ⑤ ⑥

① 产品系列
Series name

③ 产品类型
Product type

⑤ 动力电压规格
Voltage specifications

R: Profinet总线型
R: Profinet bus-type

A AC220V
T AC380V

② 功能分类
Function classification

F: 全功能型
E: 标准型
F: Full-function type
E: Standard type

④ 产品功率
power

记号	功率	记号	功率
Symbol	power	Symbol	power
005	50W	150	1.5KW
010	100W	200	2KW
020	200W	250	2.5KW
040	400W	300	3KW
075	750W	500	5KW
100	1KW	750	7.5KW

⑤ 控制电类型
Control power type
A 交流控制电
A AC power

规格对比

Specifications

Profinet	SV-X6FR全功能 SV-X6FR full-function type		SV-X6ER标准型 SV-X6ER standard type
功率 Power	50W~750W 单相220V 50W~750W Single-phase 220V	1.0KW~2.5KW 三相220V 1.0KW~2.5KW Three-phase 220V	2.0KW~7.5KW 三相380V 2.0KW~7.5KW Three-phase 380V
STO	✓		✗
脉冲输入 Pulse input	✗		✗
脉冲输出 Pulse output	✓		✗
Z相集电极 Z-phase open-collector	✓		✗
模拟量输入 Analog input	2路 2-ch		✗
模拟量输出 Analog output	2路 2-ch		✗
第二编码器 Encoder 2	✓		✗

订货信息

Model Name

规格 specification	SV-X6FR全功能 SV-X6FR full-function type	SV-X6ER标准型 SV-X6ER standard type	电源规格 Power Specifications
50W	SV-X6FR005A-A*	SV-X6ER005A-A*	单相/三相220v Single-phase/Three-phase 220v
100W	SV-X6FR010A-A*	SV-X6ER010A-A*	
200W	SV-X6FR020A-A*	SV-X6ER020A-A*	
400W	SV-X6FR040A-A	SV-X6ER040A-A	
750W	SV-X6FR075A-A	SV-X6ER075A-A	
1KW	SV-X6FR100A-A*	SV-X6ER100A-A	
1.5KW	SV-X6FR150A-A*	SV-X6ER150A-A	三相220v Three-phase 220v
2KW	SV-X6FR200A-A*	SV-X6ER200A-A	
2.5KW	SV-X6FR250A-A*	SV-X6ER250A-A	
2KW	SV-X6FR200T-A*	SV-X6ER200T-A	三相380v Three-phase 380v
3KW	SV-X6FR300T-A*	SV-X6ER300T-A	
5KW	SV-X6FR500T-A*	SV-X6ER500T-A	
7.5KW	SV-X6FR750T-A*	SV-X6ER750T-A	

*表示期货, 具体产出日期需要咨询我司销售人员
*Please consult our sales for specific date to be launched.

SV-X2E 伺服驱动器
更为经济的X2脉冲控制解决方案

SV-X2E Series Servo Drive
More economical X2-seires pulse control solution

额定功率

Rated power

■ 50W~750W 单相220V ■ 1.0KW~2.5KW 三相220V
50W ~ 750W Single-phase 220V 1.0 kw ~ 2.5 kw Three-phase 220V

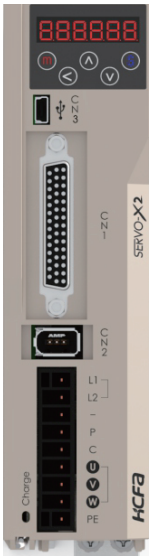
型号说明

Model identification

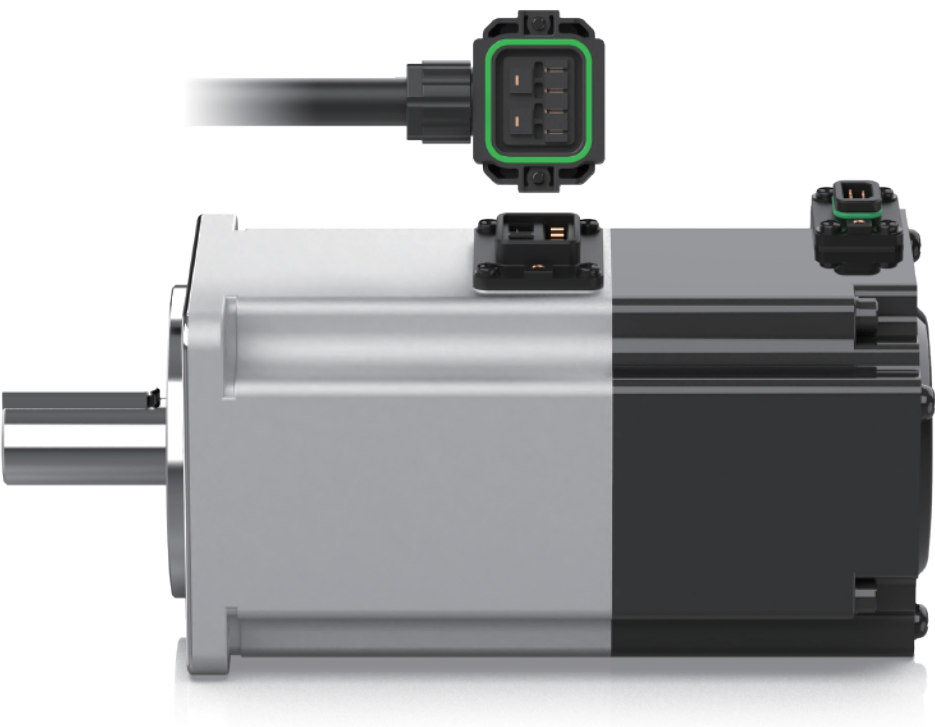
SV-X2E A – 075 – A – A 2 – 00 000
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① 产品系列 Series name	② 产品类型 Product type A 标准通用型 N CANopen总线型 A Standard type N CANopen bus type	③ 产品功率 Power 005 50W 010 100W 020 200W 040 400W 075 750W 100 1000W 150 1500W 200 2000W 250 2500W
④ 电压规格 Voltage specifications AC220V	⑤ 控制电类型 Control power type A 交流控制电 A AC power	
⑥ 产品版本 Product version	⑦ 硬件可选规格 Hardware spec 00 无 00 N/A	⑧ 软件自定义标识 Software customization mark

脉冲类型 Pulse type	最大指令脉冲频率 Max input pulse frequency	普通差动脉冲输入:频率不超过500KHz,脉宽不少于1us 高速差动脉冲输入:频率不超过4MHz,脉宽不少于125ns 集电极开路:最大200Kpps,脉宽不能低于2.5us General input: Up to 500KHz, pulse width larger than 1us High-speed input: Up to 4MHz, pulse width larger than 125ns Open-collector input: Up to 200Kpps, pulse width larger than 2.5us
	输入脉冲信号形态 Input pulse type	差动输入/集电极开路 Differential input; open-collector
	输入脉冲信号方式 Input pulse form	脉冲+方向、直角相位差 (A相+B相)、CW+CCW脉冲 Pulse+ direction, A-Phase + B-Phase, CW+CCW



SV-X2/X6 系列电机



- 高、中、低惯量全覆盖
- 额定功率:50W-7.5KW
- 额定转矩:0.16N.m-47.8N.m
- X2系列 17bit编码器
- X6系列 23bit高解析编码器

- Full coverage of high, medium and low inertia
- Rated power: 50W-7.5KW
- Rated torque: 0.16N.m-47.8N.m
- X2 series 17bit encoder
- X6 series 23bit high resolution encoder

全新设计的铁芯新工艺实现了电机的小型及轻量化,比前代短20%

The newly designed iron core technology, realizes the smaller and lighter size of the servo motor, 20% shorter than the previous generation

小型轻量化
Smaller and lighter

新材料的使用,实现电机更高速度6500rpm,更大转矩350%

New materials, to achieve a higher motor speed of 6500rpm, Up to 350% torque

高速大转矩
High-speed/high-torque

可选配23bit高分辨率光编码器,定位精度高,采用10极转子+磁场解析技术的全新设计,减少了脉动宽度,低速更平顺

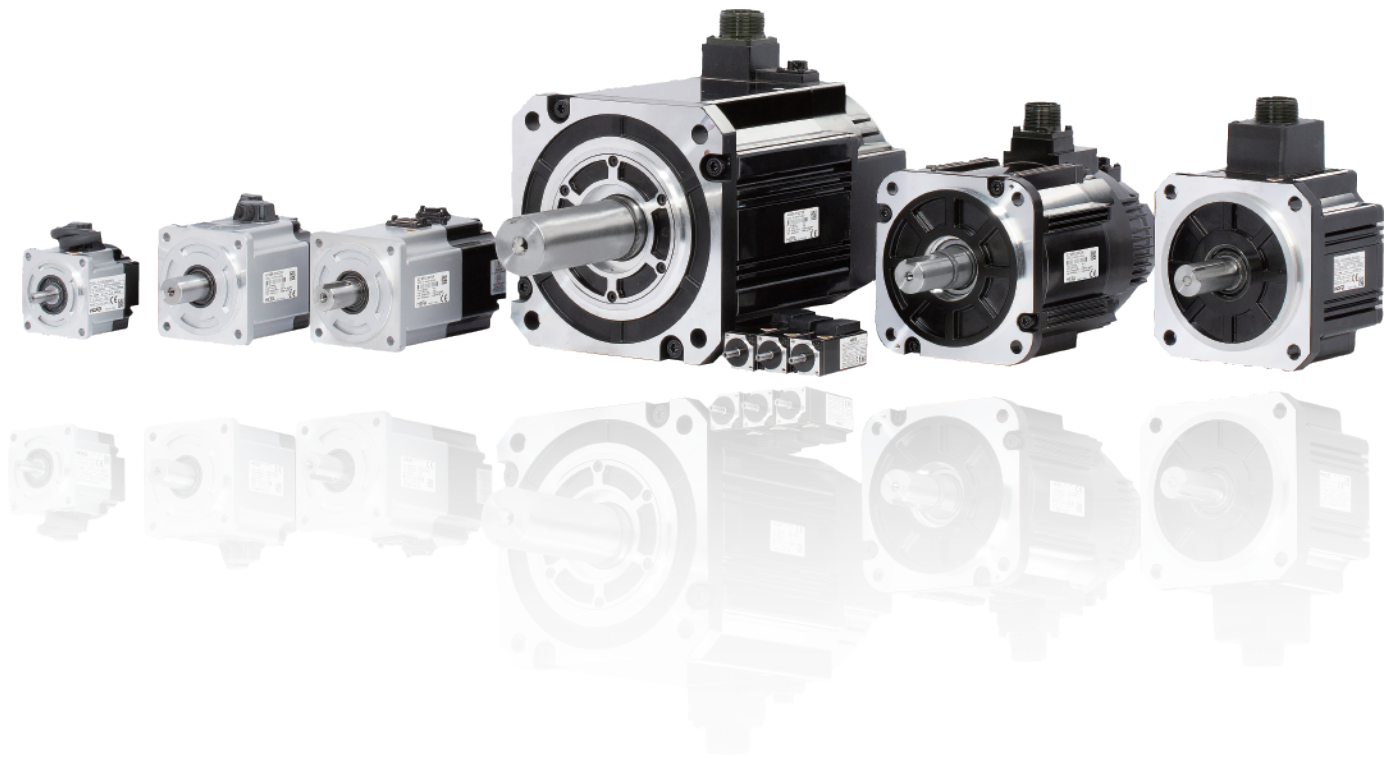
23bit high-resolution optical encoder, high positioning accuracy, New design with 10-pole rotor + magnetic field analysis technology, to reduce the pulsation width and make it smoother at low speed

平顺高精度
High-accuracy

前法兰机壳一体式结构更牢固。可选配17bit磁编码器,耐振、耐油污、耐粉尘,IP67防护等级

One-piece structure to be much stronger. 17bit magnetic encoder, Vibration/oil/dust- resistance , IP67 protection level

IP67防护等级
IP67 protection level



物流专用电动滚筒

Electric Roller for Logistics



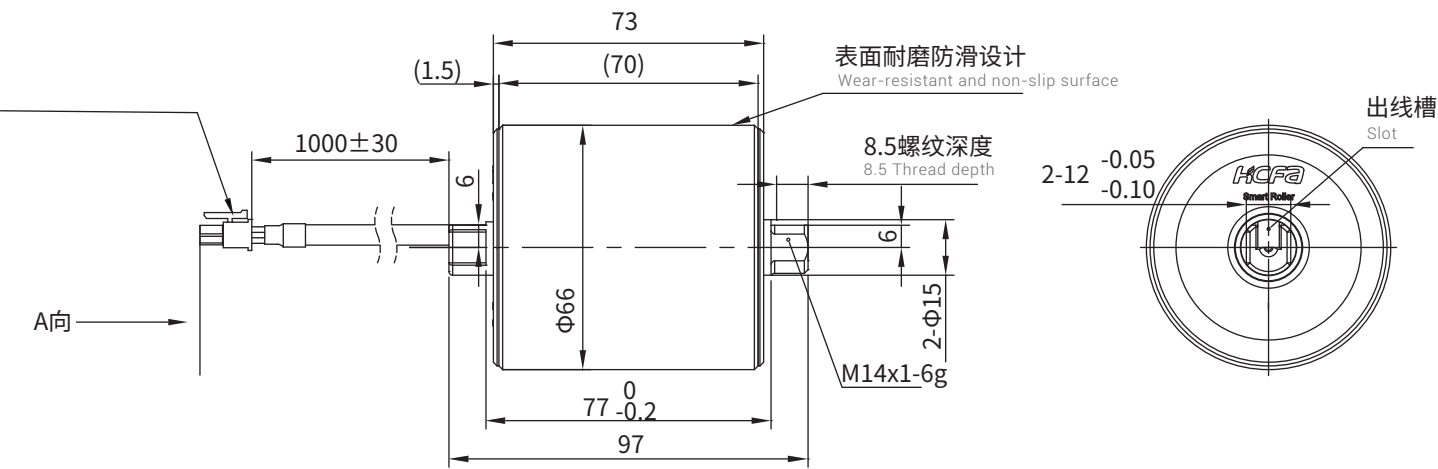
产品特点

Product Features

 高效 低速高效率性能优势： 启动电流小 功率因素高 节能降耗 High-efficiency Low-speed and high-efficiency. Low starting current, high power factor, energy saving	 小巧 绕组端部小，铜耗少 Compact Small winding ends, less copper used	 稳定 齿槽效应低 Stable Low cogging effect
 功率 有竞争力的功率密度 power Competitive power density	 低噪 旋转体直接驱动负载、低噪声设计 Low-noise Directly drive the load, low noise design	 散热 带载能力强，转子散热良好：高的过载能力 Heat dissipation Strong load capacity, good rotor heat dissipation: high overload capacity
 高速 高速的潜力、大力矩特点 High-speed High-speed, high-torque	 可靠 长的寿命，高的可靠性 运行维护简单 Reliable Long life-expectancy, high reliability, easy to maintain	 调速 良好调速性能 Speed regulation Good speed regulation performance

尺寸图

External Dimensions



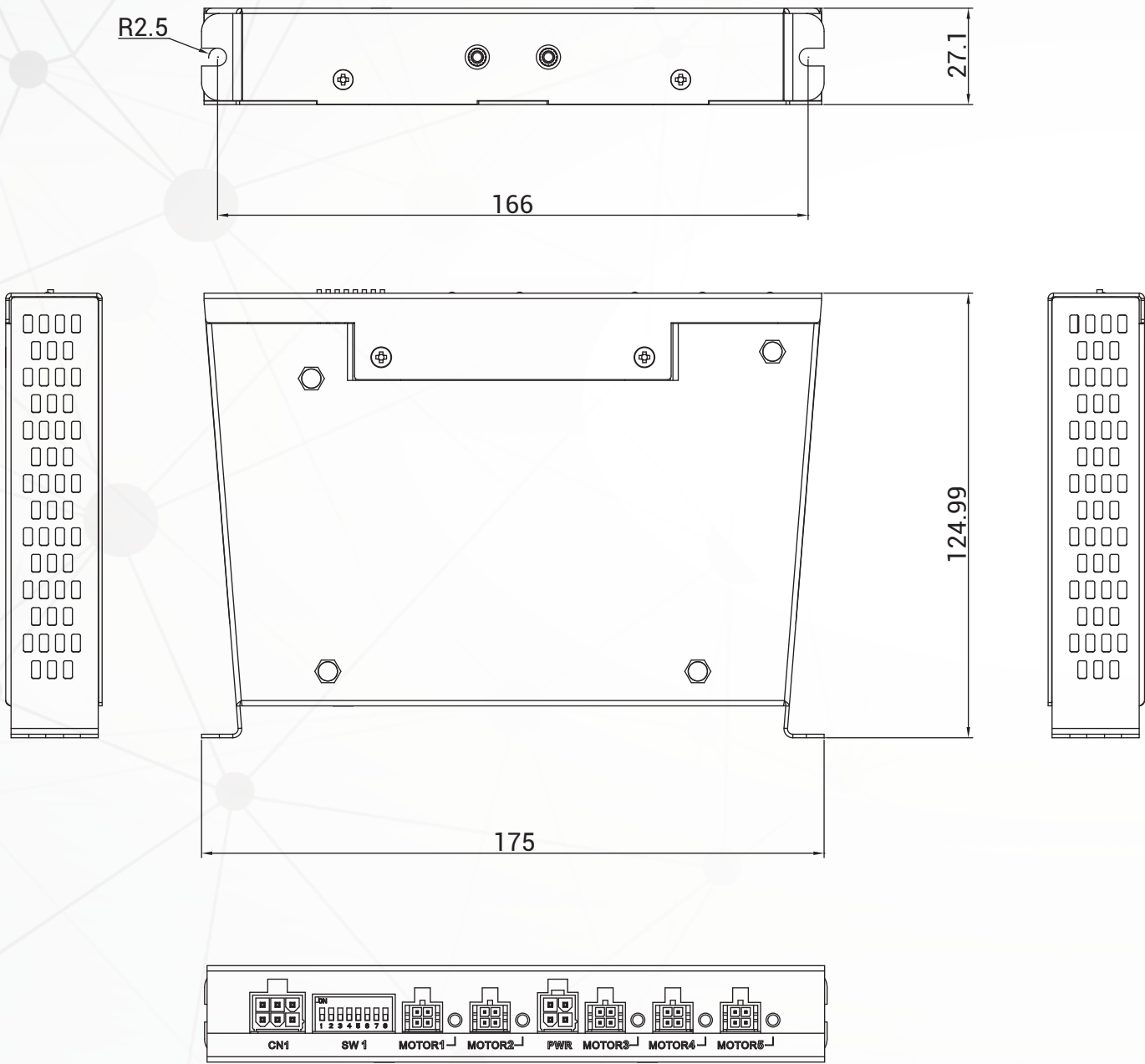
电动滚筒主要参数

Main parameters for roller

类型 Type	单位 Unit	规格 Spec.
额定电压 Rated voltage	V	DC48V
额定输出功率 Rated output power	W	50
额定转矩 Rated torque	N.m	0.96
瞬时最大转矩 Instantaneous maximum torque	N.m	2.2
额定电流 Rated current	Arms	2.4
瞬时最大电流 Instantaneous maximum current	Arms	5.3
额定转速 Rated speed	rpm	500
最高转速 Maximum speed	rpm	1000
绝缘等级 Insulation class	—	F
防护等级 Protection level	—	IP54
工作制 Working system	—	S2

尺寸图

External Dimensions



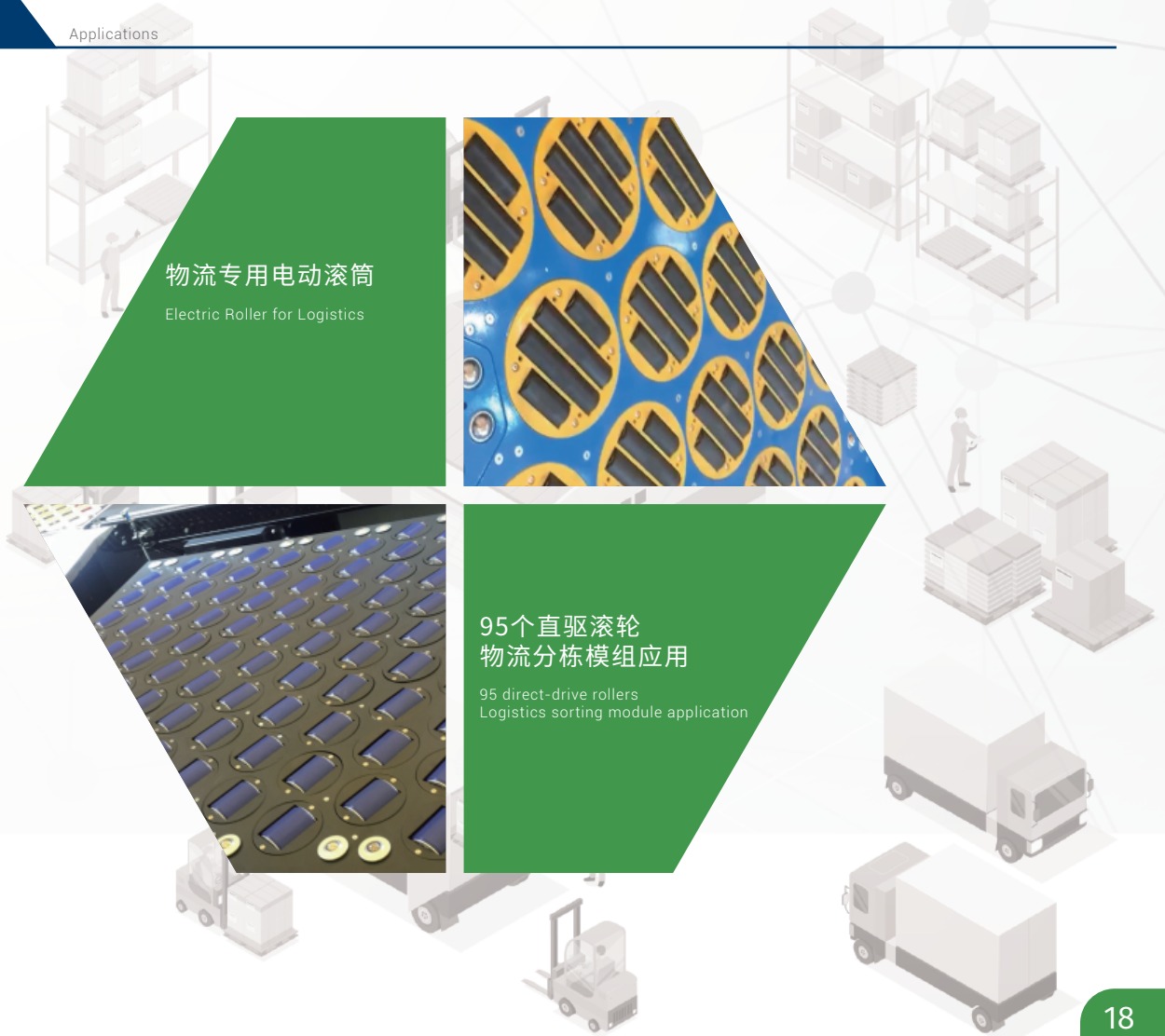
驱动器的主要参数

Main parameters for servo drive

类型 Type	单位 Unit	规格 Spec.
驱动器类型 Types		无传感直流无刷 Sensorless DC Brushless
输入额定电压 Input rated voltage	V	DC48V±15%
驱动器尺寸 Size	mm	175*120.5*30.5
使用环境温度 Ambient temperature	°C	-25~60
使用环境湿度 Ambient humidity		<85%
额定转速 Rated speed	rpm	350-1000
驱动器额定电流 Rated current	A	2
驱动器peak电流 Peak current	A (DC)	10

应用案例

Applications



E380/E220变频器

E380/E220 Series Inverters



产品特点 Product Features

全系列控制板和键盘板及扩展卡通用

General-purpose control board, keyboard panel and extension card

体积缩小最高达40%，提高容积率空间利用率

Space reduced by 40%, improve the space utilization

全新设计

New design

外观精巧

Exquisite appearance

功能强大

Powerful function

性能稳定

Stable performance

优越的过压抑制能力 快起快停 过流抑制

Excellent overvoltage suppression capability, Fast acceleration/deceleration, Over-current protect function

主要零件寿命提升， 电路板100%涂层

Main components' life expectancy greatly increased, Circuit board 100%

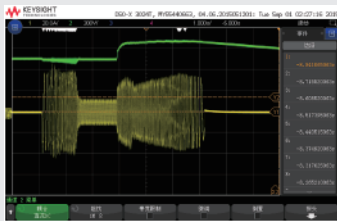
性能指标

Performance specifications

● 优越的过压抑制能力

0.5s减速，在没有外接制动电阻情况下，减速过程中，电流电压控制比较平稳，不会报过压故障。

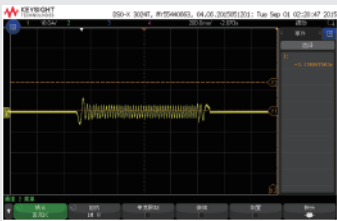
Excellent overvoltage suppression capability
0.5s deceleration time. In the absence of external brake resistor, the current and voltage can be controlled more stably and no overvoltage error occurs during the deceleration.



● 快起快停

优越的电流控制技术，实现了超强负载能力反复以**0.1s**

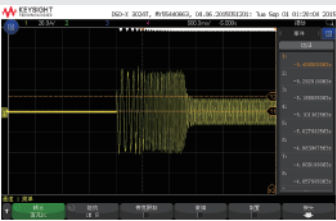
Fast acceleration/deceleration
Excellent current control technology to realize the superior load capacity. The inverter can operate repeatedly at 0.1s acceleration/deceleration without failure.



● 过流抑制能力

VF模式下，加速时间**0.1s**启动，电流控制平稳。具有优越的过流抑制能力，满足大部分应用场合。

Over-current protect function
The current is controlled stably with acceleration/deceleration 0.1s start in VF mode. The excellent Over-current protect function can satisfy most applications.



硬件特色

Performance specifications

● 归一化的精简设计

全系列控制板和键盘板子及扩展卡通用，减少物料库存，降低库存成本。

Compact and integrated design
Whole series share common parts for control panel, key board and extension card, reduce the inventory and cut down the cost greatly

● 优化合理的驱动板设计

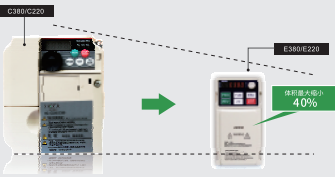
全系列控制板和键盘板子及扩展卡通用，减少物料库存，降低库存成本。

Optimize drive board design
Optimize the drive board layout, thermal design, EMC design, and 100% routing ability

● 灵活的空间运用

全新精巧设计，体积较现有产品缩小最高达40%，大幅度提高了容积率，提高客户使用空间利用率。

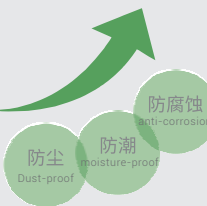
Flexible use of space
New and exquisite design, size 40% reduced to improve the space utilization for customer.



● 可靠的信赖度

主要零件寿命提升、电路板100%涂层，可大幅度提高三防能力。

More reliable
Extend main parts' life, 100%PCB coating.



聚焦物流领域

Focusing on Logistics

仓储物流 Warehouse Logistics



制造行业

Manufacturing
Industry



医疗行业

Medical
Industry



食品行业

Food
Industry



烟草行业

Tobacco
industry

快递物流 Express Logistics



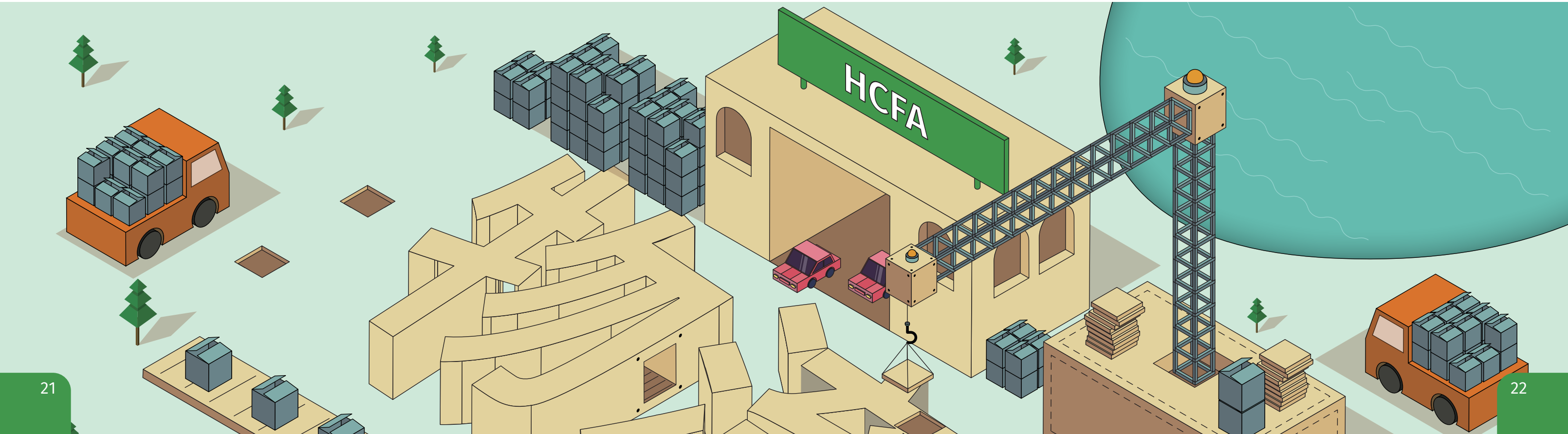
快递业主

Express
industry



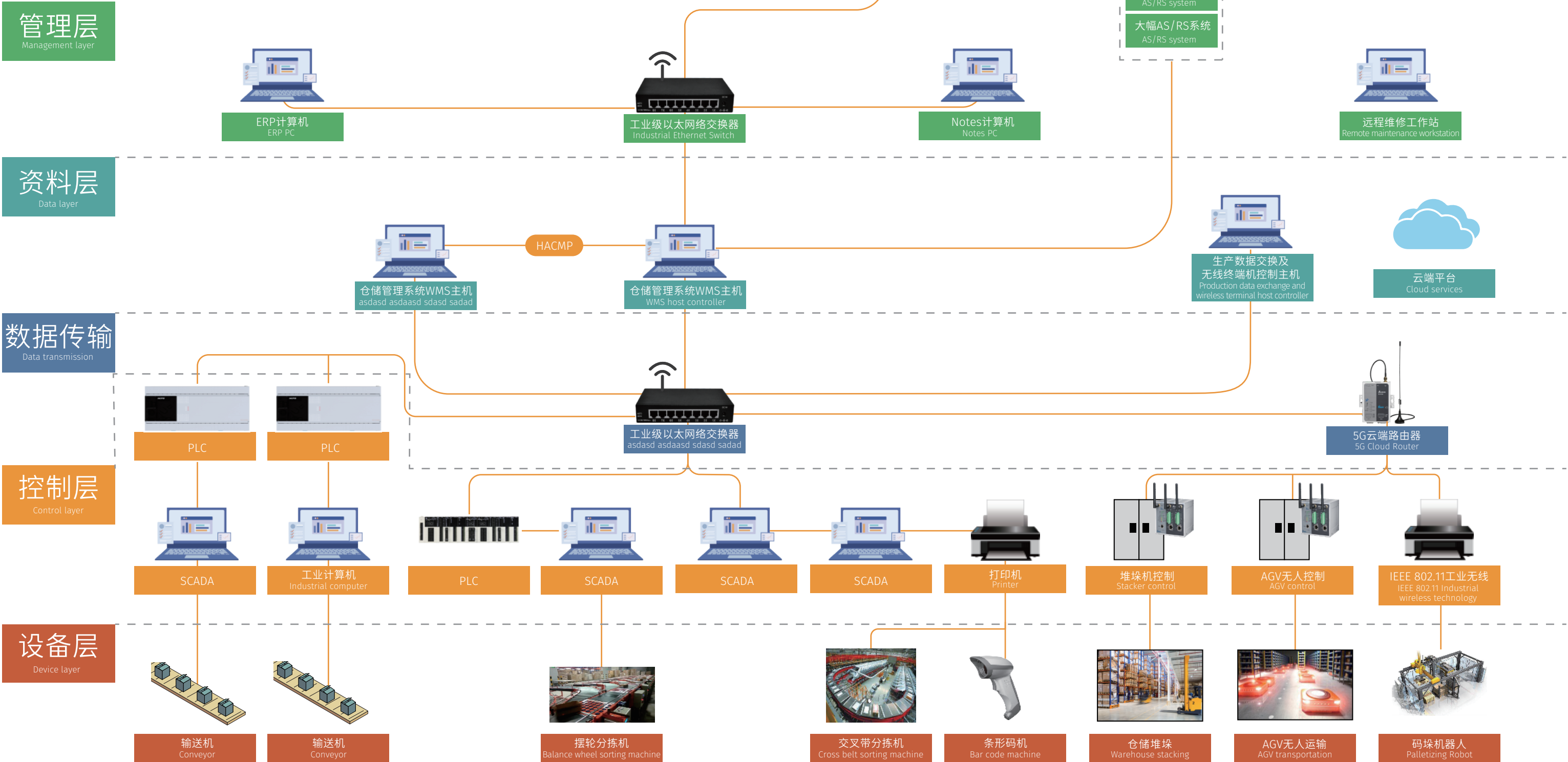
电商业主

E-commerce
industry



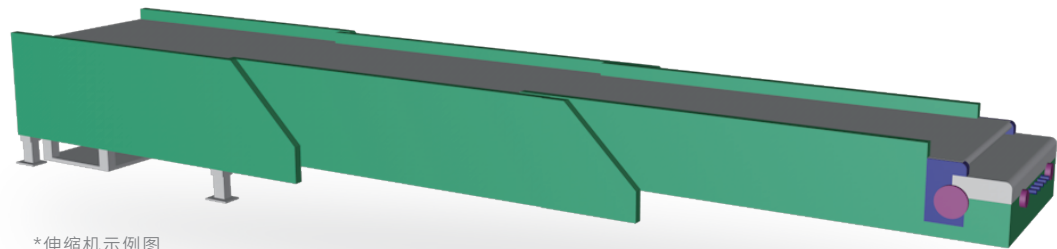
打造智能物流工业自动化整体解决方案

Create the overall solution for intelligent logistics industrial automation



伸缩机

Telescopic conveyor belt



*伸缩机示例图
Example for Telescopic conveyor belt

分拨流程

Distribution process



方案特色

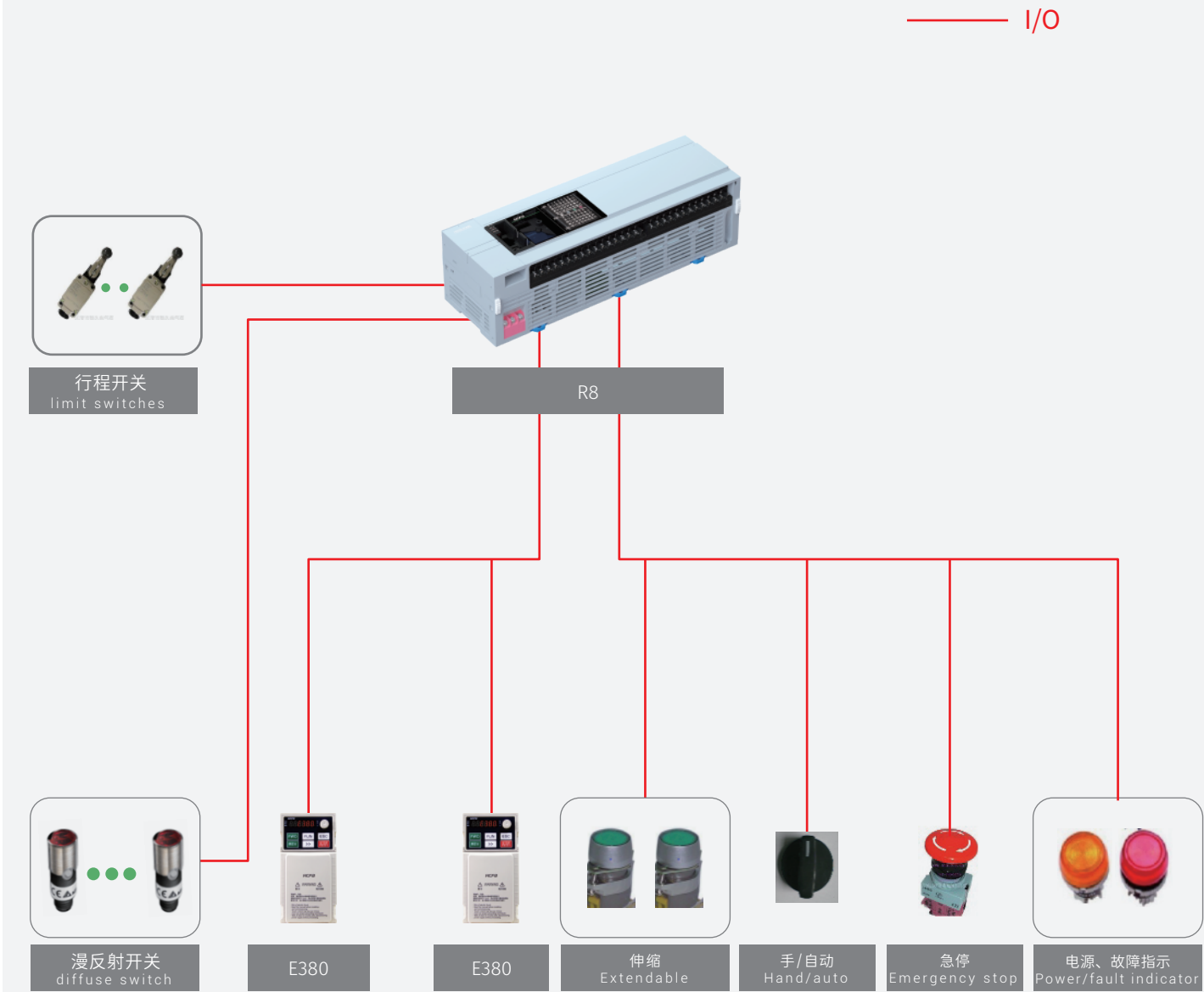
Program features

- 更大裕量的晶体管输出——200V/1.5A
- 兼容PNP&NPN
- 通讯隔离, 支持EtherNet、CANopen、RS485
- 过载能力达200%额定负载

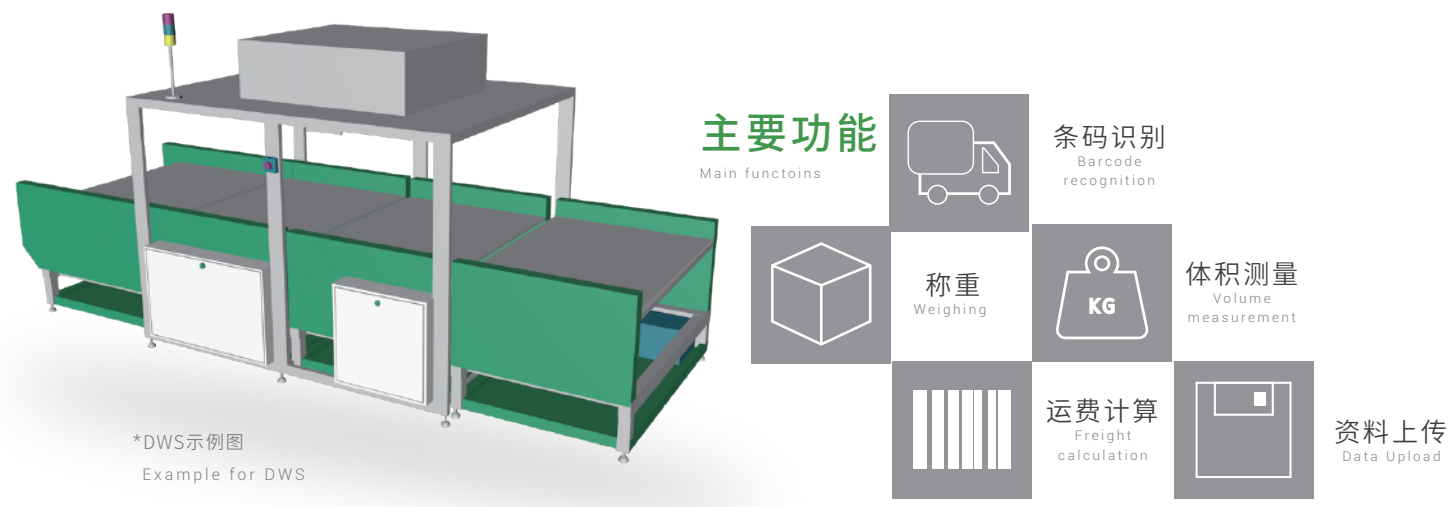
- Transistor output -200V/1.5A
- Compatible with PNP&NPN
- Communication isolation, support Ethernet, Canopen, RS485
- Overload capacity, up to 200% of rated load

方案效果及优势

Program advantages



DWS



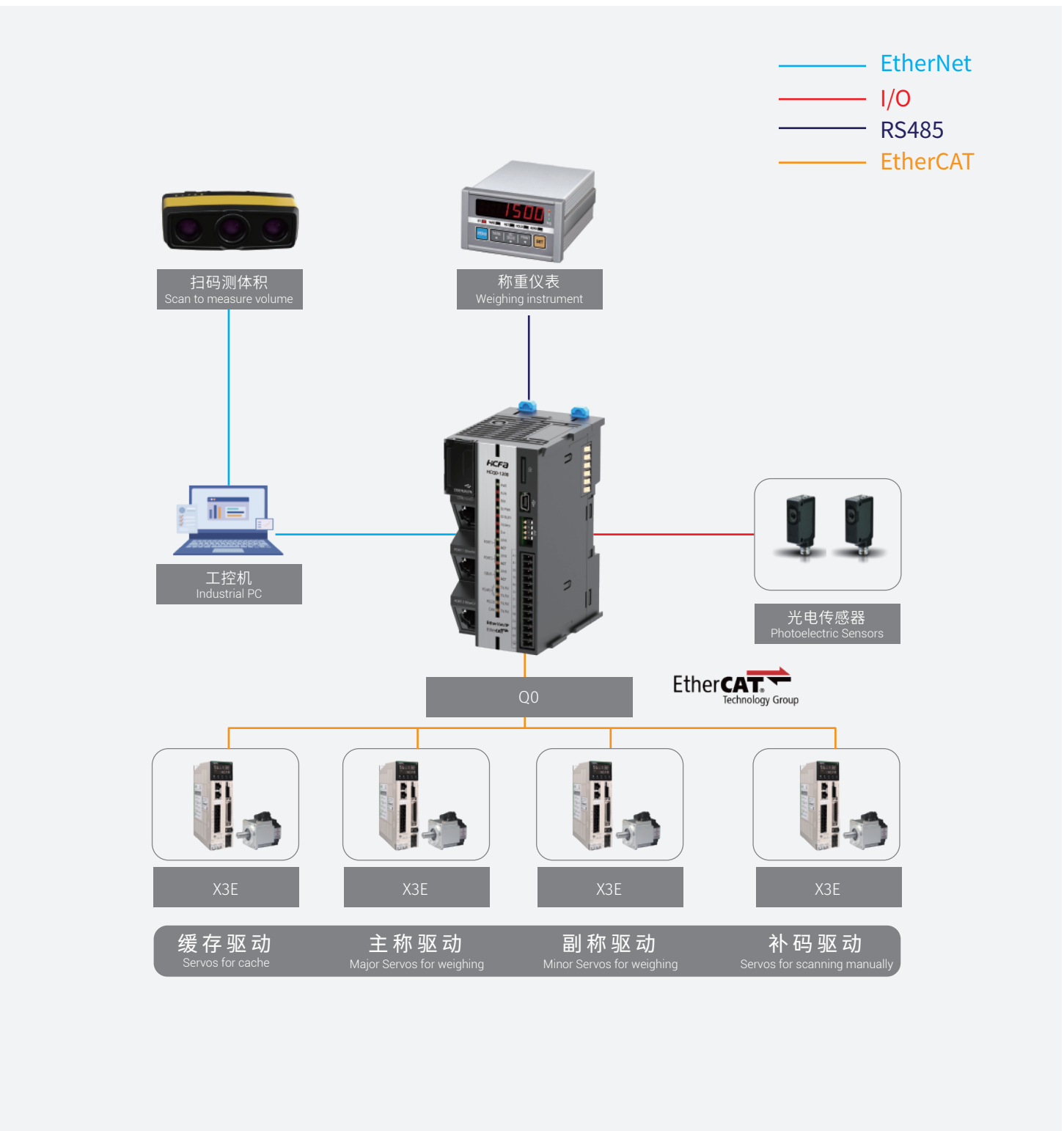
分拨流程 Distribution process



方案特色 Program features

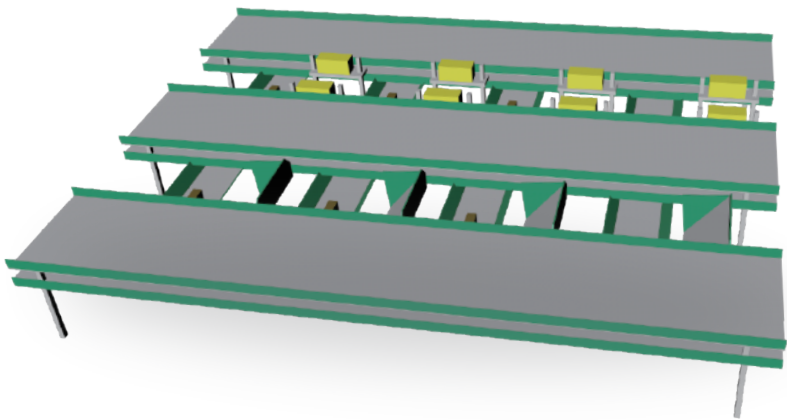
- 2.5kHz响应频宽 快速跟随系统指令
- 陷波调整与共振抑制功能
- 实现机构电机安装最大空间节省
- 支持I/O及总线控制
- 支持以太网 socket通讯
- 2.5kHz response bandwidth, quickly following system commands
- Notch adjustment and resonance suppression function
- Installation space greatly reduced
- Support I/O and bus control
- Support Ethernet socket communication

方案效果及优势 Program advantages



摆臂式分拣机

Swing arm sorting machine



*摆臂式分拣机示例图
Example for Swing arm sorting machine

分拨流程

Distribution process



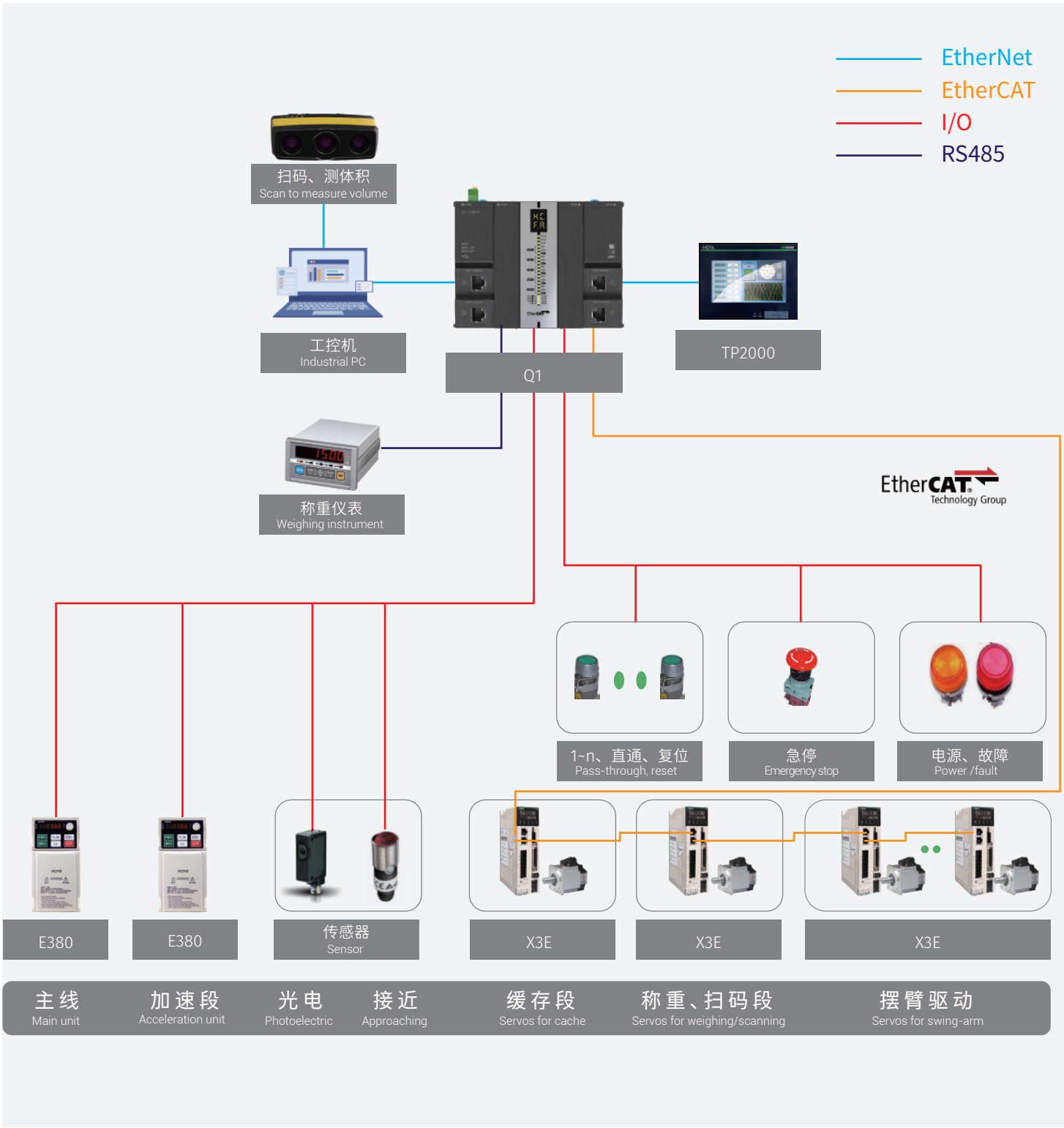
方案特色

Program features

- EC61131-3规范编程软件,6种编程语言
- 实时显示系统状态信息
- 模块化程序架构,方便调试、升级
- 全伺服系统摆臂分拣摆臂周期0.7s
- EtherCAT总线,响应更快,系统更简洁
- 支持以太网 socket通讯
- 安装、布线更方便
- EC61131-3 standard programming software, six programming languages
- Real-time display of system status
- Modular program, convenient for debugging and upgrading
- Servo system swing arm sorting, swing arm cycle 0.7s
- Ethercat bus, faster response and simpler system
- Support Ethernet socket communication
- Easier installation and wiring

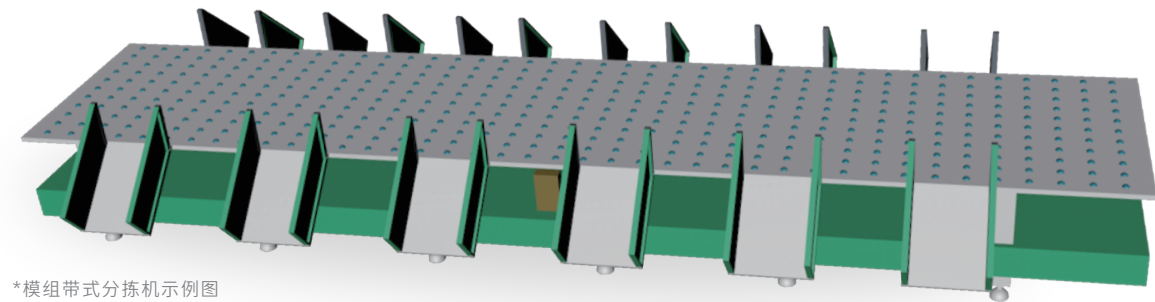
方案效果及优势

Effectiveness and advantages of the scheme



模组带式分拣机

Modular belt sorting machine



*模组带式分拣机示例图
Example for Modular belt sorting machine

分拨流程

Distribution process



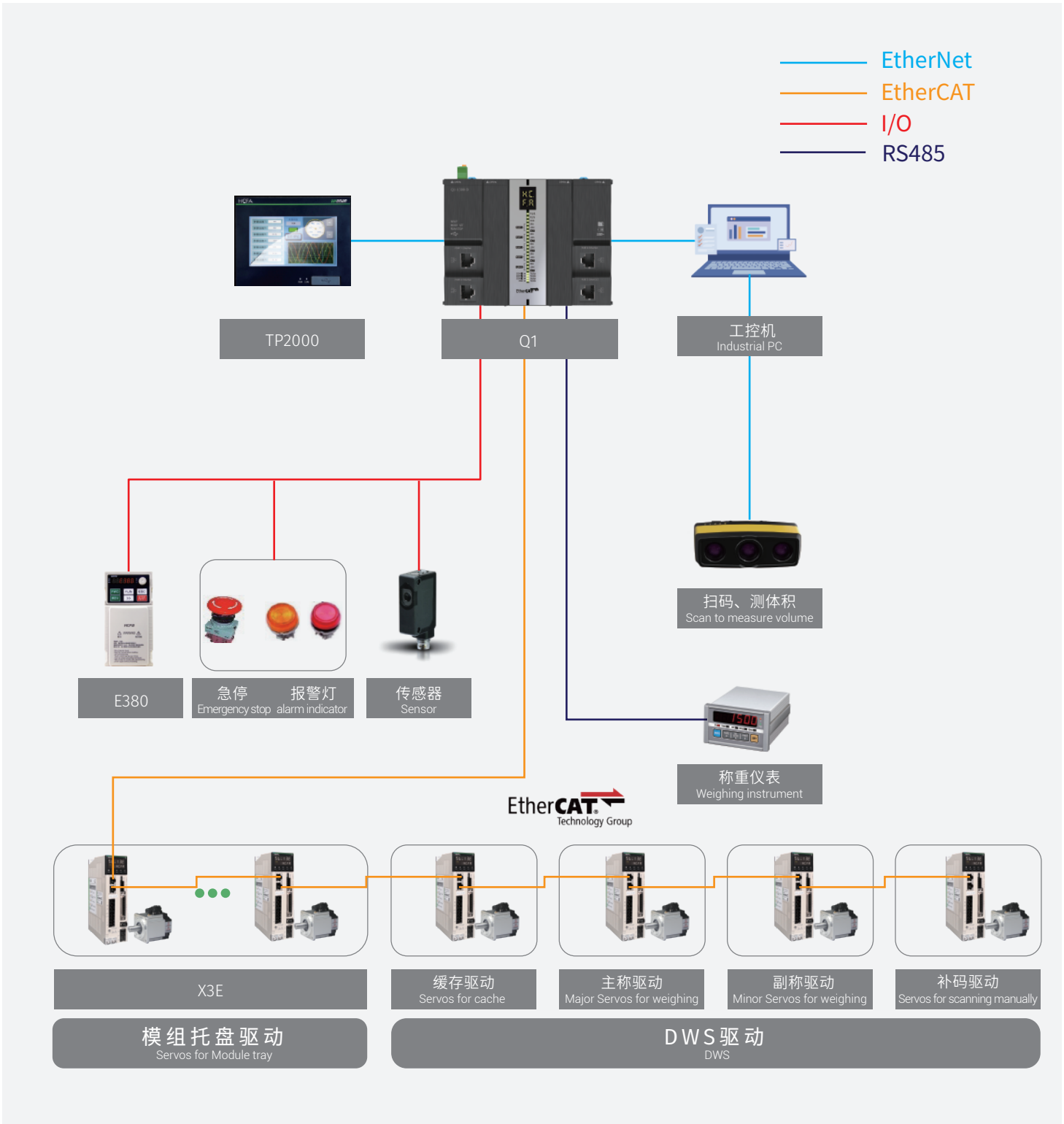
方案特色

Program features

- 2.5kHz响应频宽 快速跟随系统指令
- 陷波调整与共振抑制功能
- 实现机构电机安装最大空间节省
- 支持I/O及总线控制
- 支持以太网 socket通讯
- 2.5kHz response bandwidth, quickly following system commands
- Notch adjustment and resonance suppression function
- Installation space greatly reduced
- Support I/O and bus control
- Support Ethernet socket communication

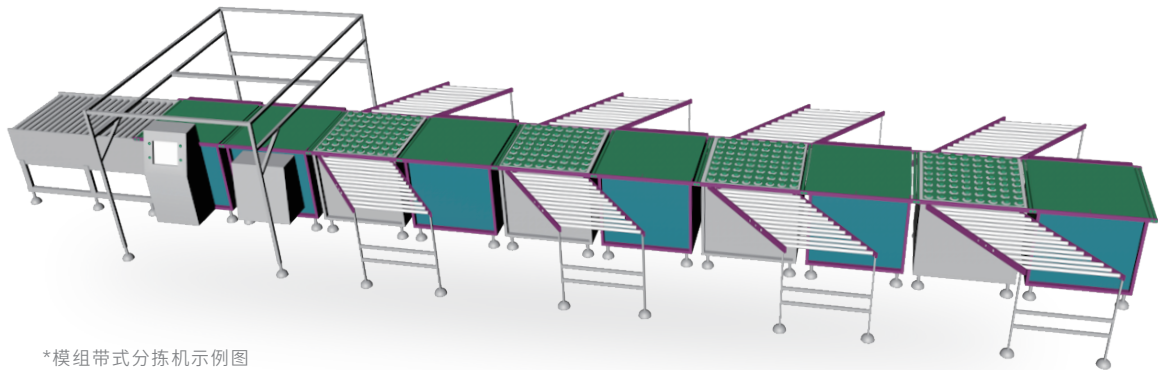
方案效果及优势

Effectiveness and advantages of the scheme



摆轮式分拣机

Balance wheel sorting machine



*模组带式分拣机示例图
Example for Balance wheel sorting machine

分拨流程

Distribution process



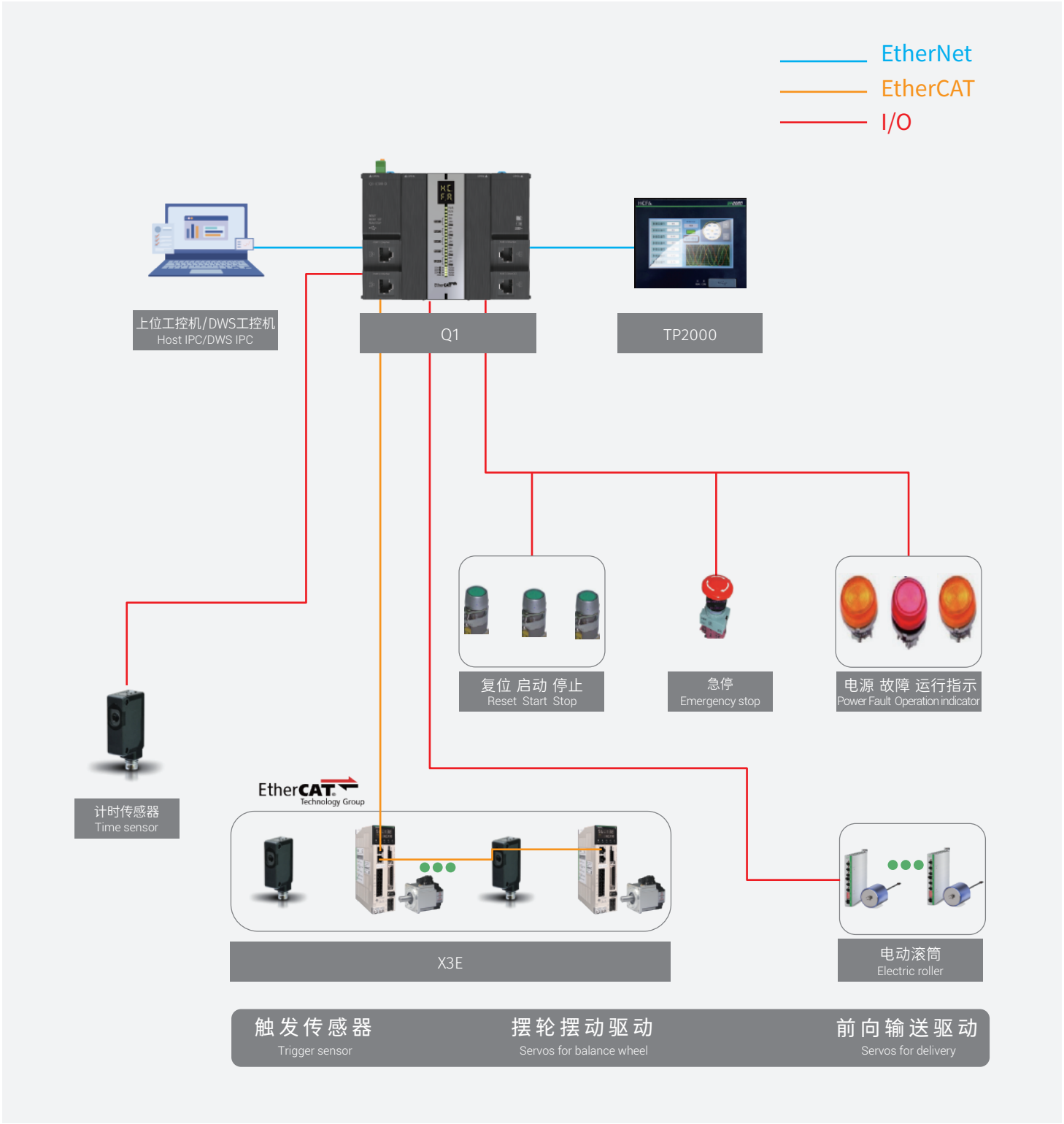
方案特色

Program features

- CODESYS软件平台,符合IEC61131-3标准,支持6种语言,丰富易用
- 指令执行可达到1ns超短同步周期,8轴1ms,16轴2ms,32轴 4ms
- 标准以太网、EtherCAT 运动控制以及视觉控制算法集成,应用便捷
- 安装、布线更简便
- 多样化硬件接口
- CODESYS software platform, comply with IEC61131-3 standard, supports 6 languages
- Command execution can reach 1ns, 1ms for 8 axes , 2ms for 16 axes, 4ms for 32 axes
- Standard EtherNet, EtherCAT motion control and vision control algorithm integration
- Easier installation and wiring
- Various interfaces

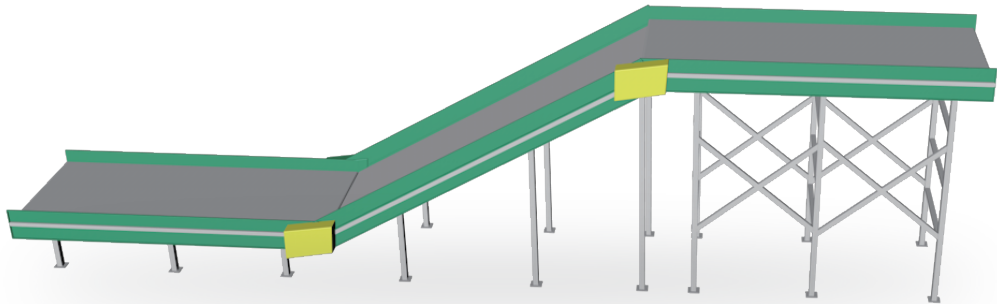
方案效果及优势

Program advantages



输送机

Conveyor



*输送机示例图
Example for Conveyor

分拨流程

Distribution process



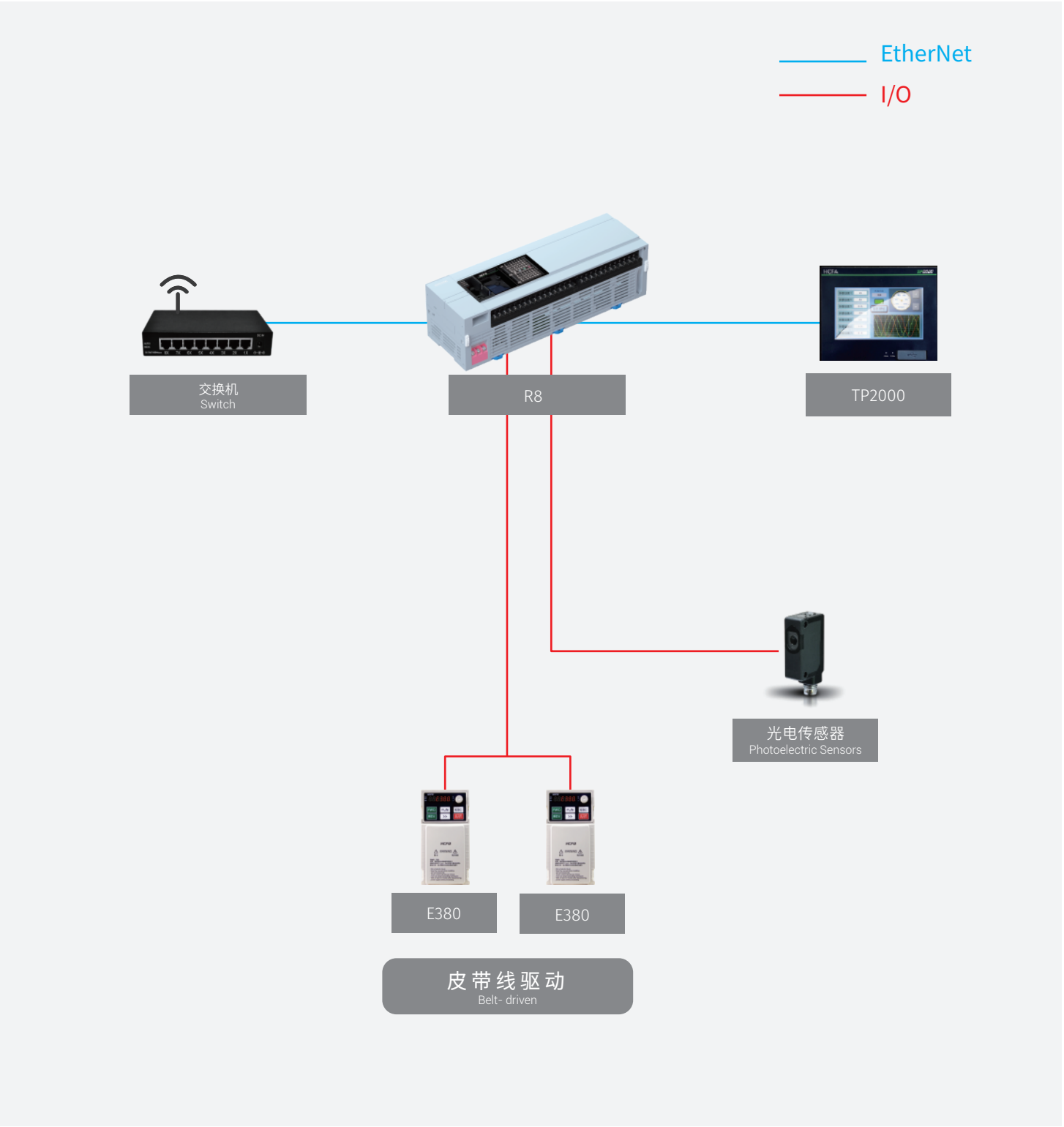
方案特色

Program features

- 64K程序容量 4路200K高速输出 8路200K高速输入
双核架构 50ns基本指令 内置3路通讯口(422 232 485)
- 支持左扩展与右扩展
- 兼容NPN&PNP
- 过载能力可达200%额定负载
- 64K program capacity 4-ch 200K high-speed output 8-ch 200K high-speed input
- Dual-core architecture 50ns basic command Built-in 3 communication ports (422 232 485)Support left / right extension
- Compatible with NPN&PNP
- Up to 200% of rated load

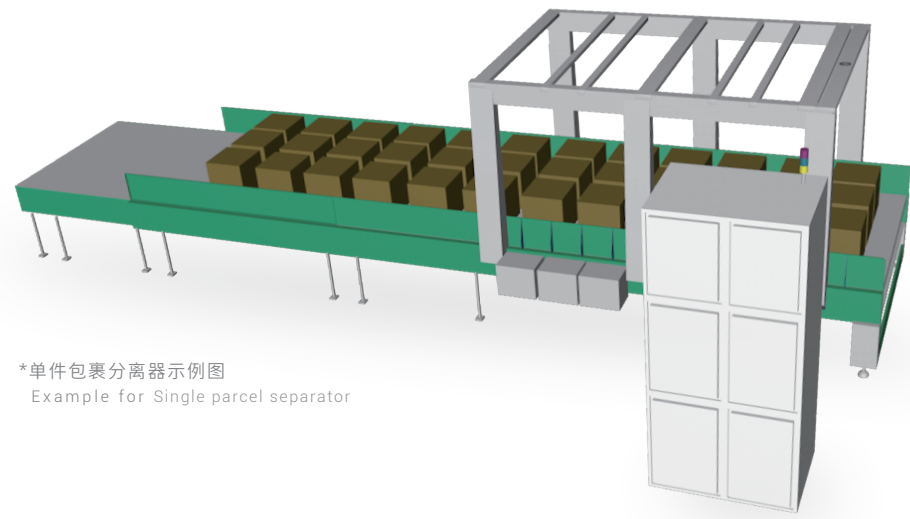
方案效果及优势

Program advantages



单件包裹分离器

Single parcel separator



*单件包裹分离器示例图
Example for Single parcel separator

分拨流程

Distribution process



方案特色

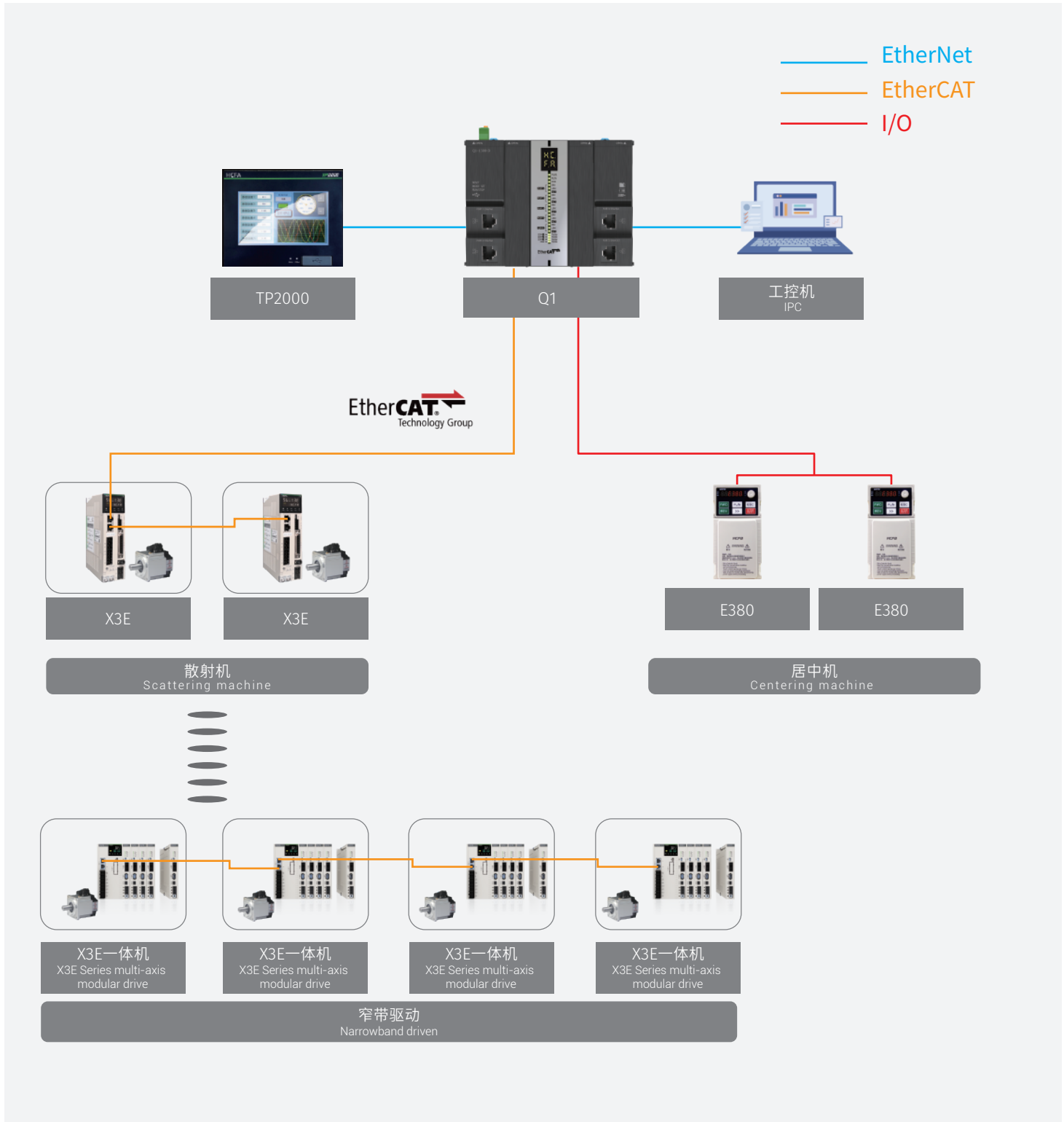
Program features

- 符合IEC61131-3规范6种编程语言；CODESYS平台
- 超短同步周期，指令执行可达到1ns，可实现8轴1ms，16轴2ms，32轴4ms
- 丰富的通讯协议：EtherCAT / CANopen / Modbus TCP / Modbus RTU；串口内置(RS485/RS232)/WIFI等选配
- 集成度高，易安装，节省空间
- 无级变速，实现效率的最大化
- 友好的人机界面，方便监视设备运行状态

- Ultra-short synchronization cycle, instruction execution can reach 1ns, 1ms for 8 axes, 2ms for 16 axes, 4ms for 32 axes
- Rich communication protocol: EtherCAT / CANopen / Modbus TCP / Modbus RTU; Built-in (RS485/RS232)/WIFI
- High integration, easy to install, space greatly saved
- Continuously variable speed to maximize efficiency
- User-friendly interface, convenient to monitor the running status

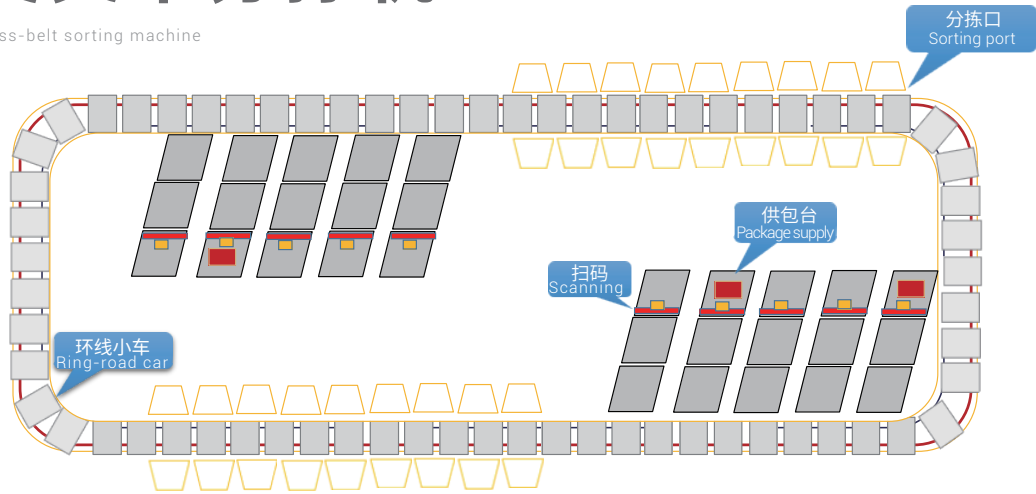
方案效果及优势

Effectiveness and advantages of the scheme



交叉带分拣机

Cross-belt sorting machine



*交叉带分拣机示例图
Example for Cross-belt sorting machine

分拨流程

Distribution process



方案特色

Program features

- 专注交叉带供包台电气解决方案
- 直驱式伺服系统省空间, 节省减速机, 噪音小
- 支持IO及总线控制方式
- 陷波调整与共振抑制功能
- 环线采用动态PID控制, 速度稳定, 达到分拣准确率最大化
- 先进的控制算法, 分拣准确率大于99.9%
- 程序模块化分组管理, 方便程序调试

- Focus on electrical solutions for cross-belt supply packages
- Direct-drive servo system, space greatly saved, no reducer, and low noise
- Support IO and bus control mode
- Notch adjustment and resonance suppression function
- Dynamic PID control, more stable, and sorting accuracy maximized
- Advanced control algorithm, sorting accuracy greater than 99.9%
- Program modularization and group management, convenient for program debugging

方案效果及优势

Effectiveness and advantages of the scheme

