

# Tsino Dynatron Electrical Technology (Beijing) Co.,Ltd.

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## Company and Products Profile

# Tsino Dynatron Electrical Technology (Beijing) Co.,Ltd.

Founded in 2012

National High-Tech Enterprise

## Branch

Tsino-Dynatron (Shanghai) Technology Co., Ltd.

Wuhu Tsino-Dynatron Electronic Technology Co., Ltd.

Offices in several large cities



# Tsino Dynatron



**To provide quality core products, system solution and services for customers in the field of automation and motion control**

**The leading provider of China  
EtherCAT Servo Drive**

**The leading provider of China  
Industrial Robot Drive**

# Technical and product certifications



National  
High-Tech Enterprise



Zhongguancun  
High-Tech Enterprise



ISO Quality System  
Qualification



Multiple  
Patents



ETG  
Consistency Certification



Product  
CE Certification



TUV Certification  
(in progress)

# EtherCAT technological breakthrough

The **FIRST** EtherCAT servo drive product with **ETG consistency certification** in China



# The EtherCAT servo drive applications in automation industry



# Industrial robot servo drive technological breakthrough

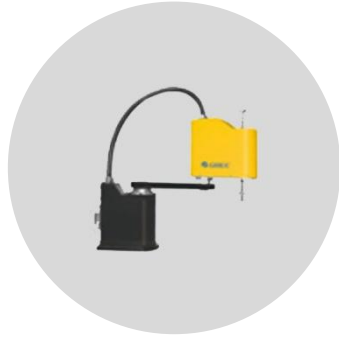
The **FIRST** multi-axis integrated servo drive for industrial robot in China



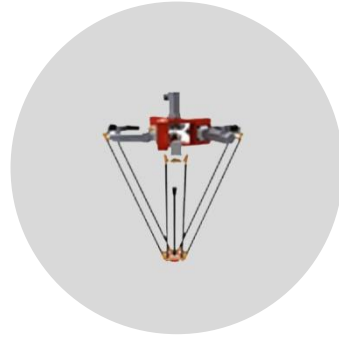
# Applications in various industrial robots



Articulated robots



SCARA robots



DELTA robots



Coordinate robots



# Our customers

## Top-class industrial robot companies

**SIASUN 新松**  
超越期望 Beyond Expectation



**钱江机器人**  
QJiangROBOT

**智殷自动化**  
GENE AUTOMATION

**艾迪精密**



**中航工业**



**GREE 格力**

**SMTCL**  
沈阳机床

**瑞思机器人**

**DAYE**  
达野智能

**ROKAE**

**FOXCONN®**  
富士康科技集团

**atomrobot™**  
阿童木机器人

**ZICEN**  
智诚机器人

**VR** 维讯机器人  
VisionRobot

**CNC**®  
华中数控

**CAPEK** 科佩克

**汇博机器人**

# Industrial Robot Recognition

With its excellent products and services, **TSINO DYNATRON** has won many honors in the field of industrial robot core components.

- In 2016-2019, won the Golden Finger Award of China International Robots for four consecutive years
- In 2017-2019, won Capek Robot Award for three consecutive years
- In 2014-2018, won the CMCD Award for five consecutive years
- In 2019, won the CAIMRS Independent Breakthrough Award



Capek Awards 2019



Golden Finger Trophy 2019



CMCD Awards 2018



CAIMRS Trophy 2019

# Product Family



# CoolDrive Series



# CoolDrive A8

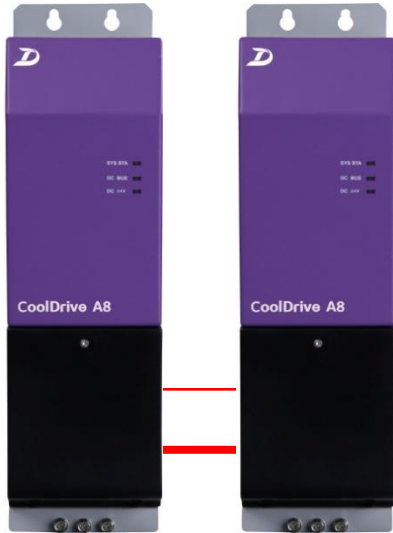
## High-end book-size modular EtherCAT servo drive



- Book-size modular structure
- Common DC bus structure design
- EtherCAT industrial Ethernet
- Absolute encoder with maximum resolution up to 24 bits
- Multi-axes synchronization deviation smaller than 1 $\mu$ s
- Acceleration feed-forward and speed feed-forward compensation
- Switching of control modes on-the-fly
- Safety function technologies(STO, SS1, SS2)
- Different frequency vibrations suppression

# CoolDrive A8 product line

## Booksize Basic Power Module



20KW

400/200V

40KW

400/200V

24V Bus

DC Bus

## Booksize Motor Drive Module



35A

400V

30A

400V

18A

400V

15A

200V

10A

400/200V

5A

400/200V

# CoolDrive A8 Applications



Industrial robots



Metal processing



Textile machinery



Printing machinery

# CoolDrive R

## Industrial robot-specific multi-axis integrated servo drive



- Multi-axis integrated servo drive
- Built-in multiple robot-specific control algorithms
- EtherCAT Industrial Ethernet
- Multiple Safety function features
- Various vibration suppression functions
- Absolute encoder with maximum resolution up to 24 bits
- Multi-axis synchronization deviation smaller than  $1\mu\text{s}$
- Acceleration feed-forward and speed feed-forward compensation
- Switching of control modes on-the-fly



# CoolDrive R product line



Six-axis type



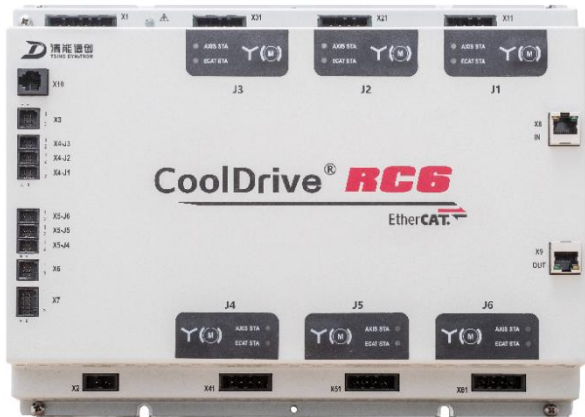
Four-axis type



Three-axis type

# CoolDrive RC

## Compact multi-axis integrated servo drive



- Compact multi-axis integrated servo drive
- Meet the needs of lightweight industrial robots and general industrial application
- EtherCAT industrial Ethernet
- Various vibration suppression functions
- Absolute encoder with maximum resolution up to 24 bits
- Multi-axis synchronization deviation smaller than 1 $\mu$ s
- Acceleration feed-forward and speed feed-forward compensation
- Switching of control modes on-the-fly

# CoolDrive RC product line

Robot series



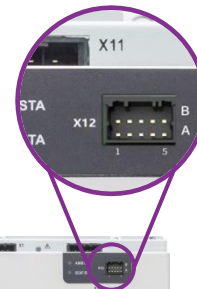
Six-axis type



Four-axis type



Three-axis type



General series



Two-axis type

# CoolDrive R/RC Applications



Lightweight industrial robots



Collaborative robots



3C industry



Packaging machinery

# New-generation smart servo drive



## CoolDrive Smart

### CoolDrive S7



# CoolDrive S7

## 【High-end & Smart】

More Compact More Smart More Easy-to-use

Excellent Performance

Multiple functions meet various industry needs



CoolDrive S7



# CoolDrive S7 product line



Standard Type

**CDS7S** series



Multi-Function Type

**CDS7F** series



Direct-Drive Type

**CDS7L** series

# CoolDrive S7—More Small

## ■ Compact appearance and structure



30mm  
400W





# CoolDrive S7—More Compact

- OLED screen shows more info



# CoolDrive S7—More Easy-to-use

- Using spring crimping terminal for reliable connection



# CoolDrive S7——Performance



- Multi-core DSP
- 2.5 $\mu$ s current loop
- 62.5 $\mu$ s control cycle of speed loop and position loop
- Multiple encoders with resolution up to 24bits
- 5 notch filters with frequency 50~4000Hz
- Vibration suppression with frequency 0.5~300Hz

# CoolDrive S7—Application functions



Auto-tuning function



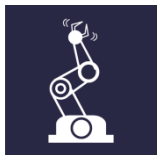
Auto-adapting notch filter



Automatic gain switch



Vibration suppression



Model tracking vibration suppression



Quadrant projection compensation



High performance full-closed control



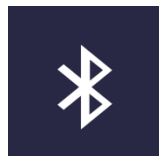
High-precision gantry synchronization



Field weakening control



Safety Functions



Wireless Bluetooth data communication



Strong data storage



# CoolDrive S7 Applications



Industrial robots



Printing machinery



Metal processing



Rubber and plastic machinery



Laser cutting



Textile machinery



Entertainment industry



3C electronics

# Professional Technical Services

## ■ Pre-sale service

Product selection, system optimization design

## ■ After-sale service

Product maintenance, system application troubleshooting, industry certification (such as Robot CR certification, etc.)

## ■ Customization service

Customized function development: vibration suppression, drag-and-drop control, anti-collision detection, etc

Customized product development: drive-controller integrated product, etc.

# 中国EtherCAT 驱动引领者 TSINO DYNATRON



# THANKS

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