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Service hotline: 027-87002560  
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### Wuhan Sine Electric Technology Co., Ltd

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# SINEE

## Company Profile

Shenzhen Sine Electric Co., Ltd.





Vision

*Automated Production and Life*

# CONTENT

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## Philosophy

*Customers first-Customers demands as the business development center*

*Customers satisfaction-Creating customer value is company value*

# ABOUT US

Foundation  
**2003**

Annual Capacity  
**One** Million units

Joint Guarantee  
Service Unit  
**100+**

Employee  
**500+**

## Automation Control System Solution Provider

Since SINEE establishment in 2003, Shenzhen Sine Electric Co., Ltd. (abbreviation: SINEE) has focused on the research and development, production and sales of motor drive and control system products in the field of industrial automation. With the vision of "automated production and life", SINEE continues to Provide valuable products and services to users. The company was listed on the Shanghai Stock Exchange's Science and Technology Innovation Board in 2021 (stock code: 688395), and currently has R&D, production and service bases in Shenzhen, Wuhan, Suzhou and Wuxi.



Shenzhen Headquarters 3000m<sup>2</sup>



Wuhan Base 40000m<sup>2</sup>



Tenghe Motor 5000m<sup>2</sup>



Wuxi Branch 1000m<sup>2</sup>

# BUSINESS DISTRIBUTION

GLOBAL

OFFICE



PARTNERS




# SINEE Industrial Automation Product Network



# Honors&Qualifications

Continuously improve technical strength  
and provide the best products and services

- ISO9001, ISO14001, ISO45001 system certification
- Shenzhen Specialized and New Small and Medium Enterprises
- High-tech Enterprise
- 3A grade credit enterprise
- Specialized and new "little giant" enterprise
- Shenzhen famous brand
- Guangdong "Contract-honoring and Credit-honoring" Enterprise
- Member unit of the National Frequency Conversion Speed Regulation Equipment Standardization Technical Committee



Authorized Patent

**32+**

Invention Patent

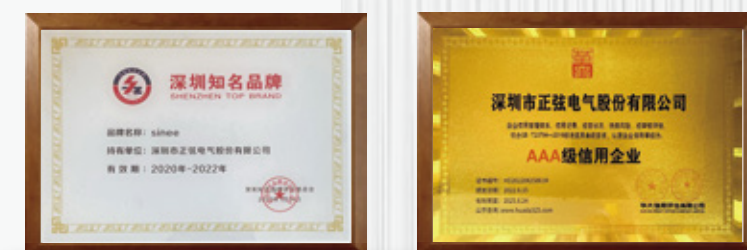
**40+**

Utility Model Patent

**33+**

Software Copyright

**53+**





# DEVELOPMENT HISTORY

Company established

The first-generation inverter SINE003 series was launched to the market.

2003

Inverters have passed national approval

Laboratory certification and CE certification

2007

Obtained "National High-tech Enterprise"

National Standard Participating and Review Unit

2009-2011

SINEE



2012-2015

ISO9001:2000 passed the Swiss SGS certification and introduced IPD management.

The company was listed on the New OTC Market with stock code 834933

2016-2017

Become a pilot enterprise for industrial brand cultivation by the Ministry of Industry and Information Technology

Won the title of "Top 100 Independent Innovation Small and Medium Enterprises"

"Shenzhen City's Backbone Enterprise with Strong Quality"

2018-2020

Awarded as Guangdong "Contract-honoring and Credit-honoring"  
Passed the "five-star after-sales service system evaluation" certification

Awarded as a member unit of the National Frequency Conversion Speed Regulation Equipment Standardization Technical Committee (TC518)

The Wuhan production base with a production capacity of more than 4 million units

2021-Present

Listed on the Science and Technology Innovation Board, stock code: 688395

Won the national-level specialty "Little Giant"

The sales project management method is implemented and the planning industry management method is implemented.



## RESEARCH AND DEVELOPMENT STRENGTH

### 01 Highly systematic and process-oriented R&D organizational structure

Accurate IPD process drives efficient project operation Systematic business management  
PLM/PMS

### 02 Excellent personnel echelon building

150+ elite R&D team, 40%+ master's degree, 98%+ bachelor's degree,  
more than 30% of personnel have more than 10 years of industry experience  
30% + annual staff growth rate, continuously injecting fresh vitality into the team

### 03 Deep industry accumulation

20+ years of commitment to driving innovation and development of industry solutions,  
with numerous patent achievements  
National standard participating unit, industry benchmark

### 04 Well-equipped development and testing platform

Two advanced R&D centers provide solid hardware support  
A complete testing environment to ensure the high quality and performance of products

### 05 Invest heavily in R&D to innovate and open up the future

Invest more than 10% of sales revenue in R&D every year  
Actively expand new business areas and develop a broader market space





## RESEARCH AND DEVELOPMENT STRENGTH

### 01 High Performance Inverter&Servo System Research Center

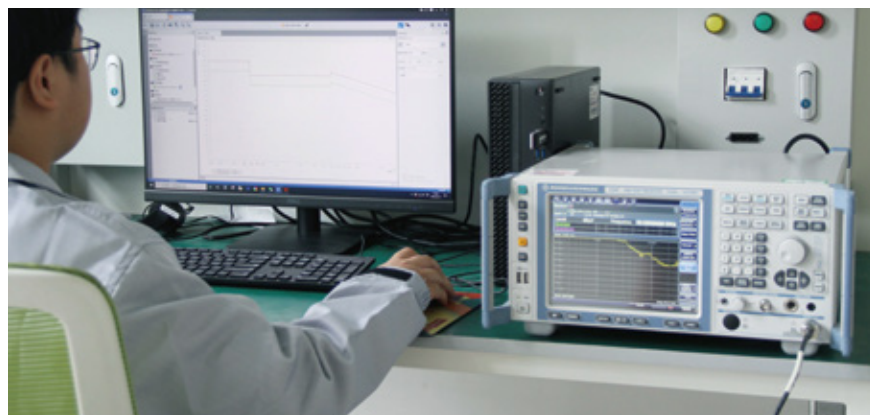
#### ► Device Laboratory

- > Transistor analog analysis platform
- > LCR comprehensive simulation and analysis platform
- > Device micro analysis platform



#### 功能性能实验室 Function & Performance Laboratory

- > Covering 400w~630kw
- > PM motor test platform
- > AM motor test platform
- > Basic function test platform
- > Multi-machine communication test platform



### 02 20+ Experimental Platforms



### 03 50 million+ Investment

#### ► EMC及安规实验室 EMC and Safety Regulation Laboratory

- > Withstand voltage test
- > Insulation test
- > Impulse voltage test
- > Overload test
- > Safety inspection
- > Mechanical testing
- > Short circuit test



#### ► 模拟环境实验室 Simulated Environment Laboratory

- > High and low temperature simulation
- > Humidity simulation
- > Corrosion simulation
- > Dust simulation





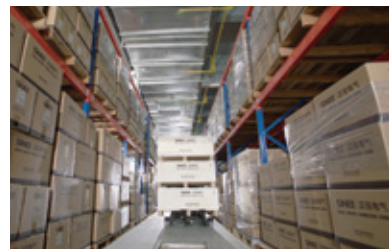
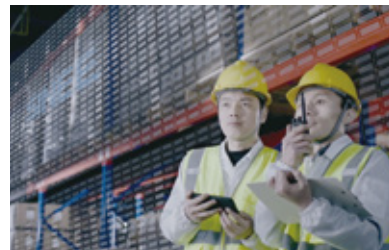
## SUPPLY CHAIN: EFFICIENT AND RELIABLE



01

### FORECAST PLAN

Digital warehousing and logistics, quick response depending on order needs, optimized delivery, guaranteed distribution



02

### RAPID RESPONSE

Promote the efficient combination of planning, organization, implementation and coordination in the manufacturing process

RAPID RESPONSE



03

### EFFICIENT PRODUCTION



### © AUTOMATED PRODUCTION LINE

The production process fully use the self-developed automatic test equipment (ATE) to realize the test automation of PCBA and the whole machine, Effectively improve production efficiency and product quality





# 01 Inverter

## EM760 Series Inverter

Three-Phase 340-460V 0.75-710kW  
Three-Phase 660-690V 18.5-800kW



High Performance



High EMC



Versatile and Scalable



EM760 is a new generation of high-performance vector control inverter from SINEE, with a standard LCD operation panel for easy use. EM760 has the characteristics of high performance, high reliability, high electromagnetic compatibility, integration of permanent magnet synchronous and asynchronous motor drive, and scalability, and can be used in almost all application industries and various working environments.



### Product Advantages

- Built-in reactor to improve power factor
- Built-in C3 filter Support multiple communication
- Supports high frequency output up to 3000Hz for driving high-speed motors
- Standard LCD panel, convenient for customers to use
- Support bus expansion cards: PROFINET, CANopen, EtherCAT
- Various PG cards: OC, differential UVW, resolver PG card



### Applications



# EM730 Series Inverter

Single/Three-Phase 200-240V 0.4-2.2kW

Three-Phase 340-460V 0.75-450kW

-  Stable and Reliable
-  Easy to Use
-  Multifunctions



EM730 is Sine Electric's new generation general-purpose frequency converter. EM730 has the characteristics of ease of use, high reliability, powerful functions, and high electromagnetic compatibility. It can be used for speed regulation of many open-loop speed control industrial machinery and energy-saving applications of fans and water pumps.

## Product Advantages

- Built-in C3 level filter and greatly reduces external interference.
- The all-metal base plate adapts to working environments with vibration and reduces motor induced voltage. Supports 100kHz high-speed pulse input
- Support 100kHz High Speed Pulse Input
- Supports mobile APP and Wi-Fi module to monitor
- Supports high-frequency output up to 3000Hz for driving high-speed motors
- Integrated special functions for rewinding and unwinding



## Applications



# EM700 Series Inverter

Single/Three-Phase AC 200-240V 0.4-2.2kW

Three-Phase AC 340-460V 0.75-9.0kW

-  Compact Size
-  Independent Duct
-  Quick Installation



The EM700 series inverter is a high-reliability, small-sized general-purpose inverter launched by Sine Electric: EM700 supports three-phase AC asynchronous machines. It can be widely used in fans, water pump industries and other simple frequency conversion speed regulation occasions.

## Product Advantages

- Book-like narrow body design, as low as 57mm, can be installed on rails, vertically, or sideways.
- The main power devices are packaged in modules to improve the adaptability of the power devices to the environment.
- The protection functions are complete: short circuit, overcurrent, overvoltage, overload, overheating and other multiple protections.
- Supports network port external keyboard and standard MODBUS communication protocol
- Advanced heat dissipation technology is used to ensure that both sides of the inverter are closed to meet heat dissipation requirements
- Integrated Special functions for rewinding and unwinding



## Applications





# EM790 Series Inverter

Three-Phase AC 340V-460V 0.75kW-1600kW  
660V-690V 18.5kW-1700kW

-  High Performance
-  High EMC
-  Versatile and scalable

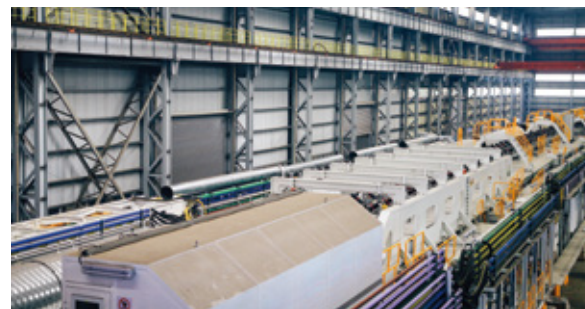


The EM790 series engineering inverter is a high-performance inverter designed by Sine Electric based on the needs of engineering applications. Based on the industrial application environment, the product has high power density, compact structure, excellent performance, stability and reliability, powerful functions, flexible and simple application configuration Easy-to-use features.

## Product Advantages

- Improved VF control technology (VVF), speed sensorless vector control technology (SVC) and speed sensor vector control technology (FVC), support driving permanent magnet synchronous motors/asynchronous motors/permanent magnet synchronous reluctance motors
- Independent air duct design, stronger environmental adaptability, increased stability and reliability.
- The product has powerful functions to meet the diverse industrial field applications.
- DC reactors are standard for 18.5KW and above to reduce current distortion, improve power factor and enhance product reliability

## Applications



# EM750 Series Inverter

Single/Three-Phase 220V-240V 0.4kW-2.2kW  
Three-Phase AC 340V-460V 0.75kW-450kW

-  Stable and Reliable
-  Easy to Use
-  Multifunctions



The EM750 series engineering inverter is a high-reliability general-purpose inverter designed by Sine Electric based on the needs of engineering applications. It has advanced V/F control mode and speed sensorless vector control mode (SVC), and can easily drive asynchronous motors. and synchronous motors

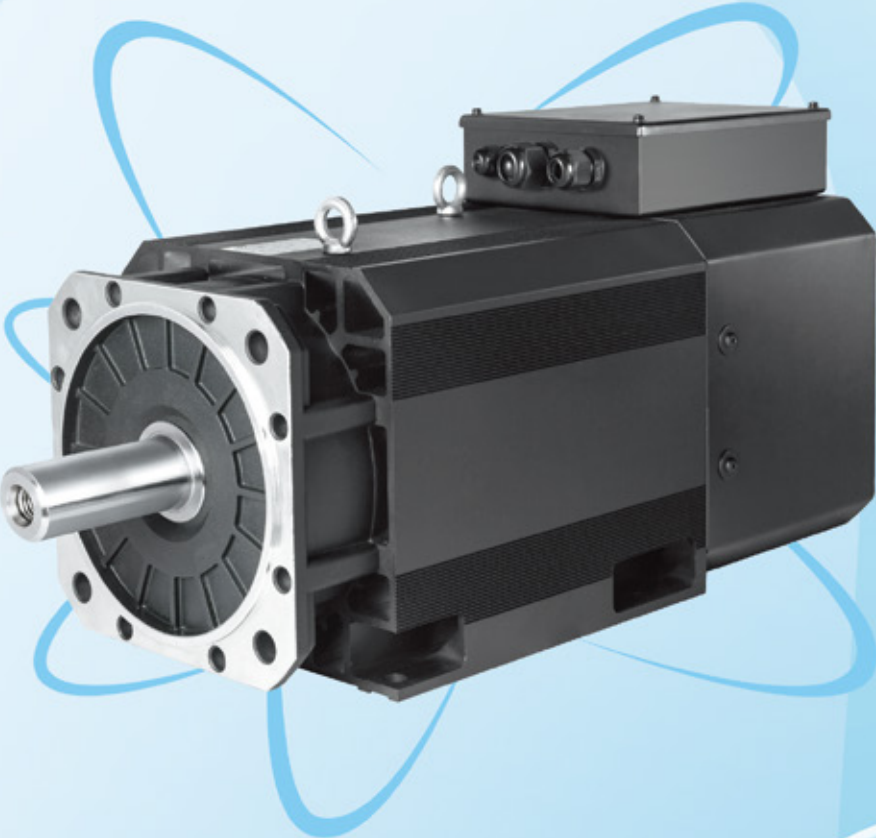
## Product Advantages

- Independent air duct design and standard PCB coating, stronger environmental adaptability, reliable operation at 50°C
- Supports V/F control technology (VVF) and speed sensorless vector control technology (SVC), and can drive permanent magnet synchronous motors/asynchronous motors at the same time
- Built-in PID, simple PLC, multi-speed function, multi-point V/F fold line, multiple braking methods, instantaneous stop, torque control, automatic voltage stabilization function (AVR) and other functions to meet complex industrial field applications
- The panel is equipped with a digital potentiometer as standard, which makes external connection more convenient and the control accuracy reaches 0.01Hz.

## Applications



# PM Motors



Italian permanent magnet technology, heritage European quality, safe, reliable and guaranteed

Small size and light weight  
Small vibration, low noise,  
small temperature rise,  
and low overall energy consumption.

High efficiency, reaching the national level 1 energy efficiency standard and the European IE5 energy efficiency level

High power factor,  
The motor power factor is close to 1, which can greatly reduce the amount of capacitance compensation

The whole machine uses high-grade high-quality raw materials.  
Top quality rare earth materials for long service life

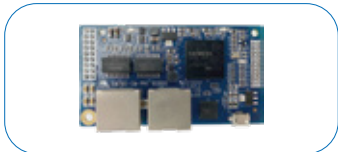
Optimize electromagnetic design to ensure low electromagnetic noise, smooth and efficient operation

High power density, wide efficiency range, and smooth non-inductive synchronous speed.  
Save energy while improving end product quality

# Inverter Accessories



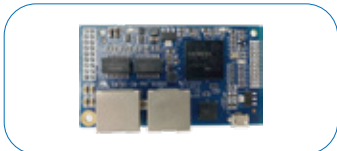
CANopen Card



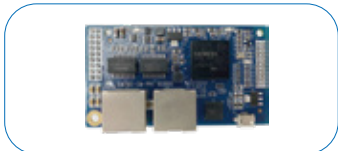
MODBUS TCP Card



EtherCAT Card



PN Card



PN2 Card



I/O Expansion Card



SinCos PG card



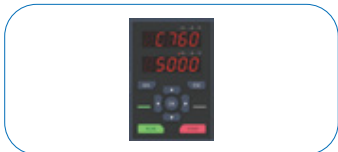
Resolver PG card



UVW differential PG card



Keyboard Tray



LED double row keyboard



LCD Keyboard



WiFi Module



Brake Unit



Energy feedback unit



Boost Module



Reactor



Filter

\*For detailed adaptation relationships, see the inverter user manual



# 02 Servo system

## EA350 Series Servo Drives

Single Phase 220V-240V 0.1-1kW  
 Three-Phase 220V-240V 0.75-1.5kW  
 Three-Phase 340V-460V 1.5-30kW



High Performance



High EMC



Versatile and Scalable



EA350 series servo driver is a high-performance small and medium power AC servo unit developed by Sine Electric. It can be widely used in machining centers, laser cutting, high-speed die-cutting, printing machinery and other fields that have high performance requirements.



### Product Advantages

- Provides advanced functions such as stiffness selection, real-time automatic gain tuning, automatic resonance suppression, etc.
- Adopt advanced motor control dedicated CPU, large-scale programmable gate array FPGA and PIM power module
- Has rich digital and analog interfaces
- Flexibly configurable built-in 16-segment multi-segment position to realize simple PLC functions
- Optimized PID control algorithm realizes precise full digital control of torque, position and speed, with high precision and fast response.
- Standard configuration MODBUS communication protocol facilitates networking







### Applications



# EA300E Series Servo Drives

Single Phase 220V-240V 0.1-1kW  
 Three-Phase 220V-240V 0.75-1.5kW  
 Three-Phase 340V-460V 1.5-30kW

-  Respond Quickly
-  Bus Control
-  Accurate Positioning
-  Easy to Apply

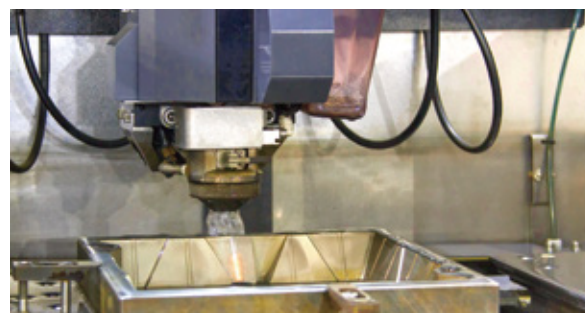


The EA300E series servo drive products are high-performance, small and medium-power bus-type AC servo drives developed by Sine Electric. It is suitable for semiconductor manufacturing equipment, robots, metal processing machine tools, conveyor machinery and other automation equipment to achieve fast and accurate collaborative control.

## Product Advantages




- Adopts Ethernet communication interface, supports EtherCAT CoE (CA301, CA402) communication protocol, and cooperates with the host computer to realize network operation of multiple servo drives
- It provides rigidity table settings, inertia identification and vibration suppression functions, making the servo drive simple and easy to use. The servo motor with a 17-bit incremental encoder and a 23-bit absolute encoder runs quietly and smoothly, responds quickly, and has accurate positioning.

## Applications



# EA190 Series Servo Drives

Single Phase 220V-240V 0.2-0.75kW

-  Respond Quickly
-  Accurate Positioning
-  Easy to Apply



EA190 series servo driver is a high-performance small and medium power AC servo unit developed by Sine Electric. This series of products uses advanced motor control-specific MCUs and PIM power modules, which feature high integration, small size, complete protection, and high reliability.

## Product Advantages

- Optimize the PID control algorithm to achieve full digital control of torque, position, and speed
- Has rich digital interfaces and supports MODBUS communication protocol
- The EA190 series supports various AC permanent magnet servo motors using RA-CODER protocol's 17-bit incremental magnetic, optical encoder, and 23-bit absolute optical encoder to meet different requirements for cost and performance.

## Applications





# EA230/EA233 Series Servo Drives

Three-Phase 380V 30kW-280kW

- 

High Integration
- 

Small Size
- 

Perfect Protection
- 

Stable and Reliable



EA230/EA233 series servo drive products are high-performance and high-power bus-type AC servo drives developed by Sine Electric. It adopts Ethernet communication interface, supports EtherCAT CoE (CA301, CA402) communication protocol, and cooperates with the host computer to realize the network operation of multiple servo drives. It is suitable for automation equipment such as semiconductor manufacturing equipment, robots, metal processing machine tools, and conveyor machinery to achieve fast and accurate collaborative control.

## Product Advantages

- Provides a variety of CNC machine tool solutions. CNC milling machines, CNC lathes, machining centers and other CNC equipment spindle (motor spindle) drive
- Interfaces are rich and support various brands of CNC system interfaces.
- Suitable for a variety of motors, AC servo spindle motor (asynchronous/permanent magnet synchronous), variable frequency motor (with encoder), ordinary asynchronous motor (with encoder),
- Adaptable to a variety of processing techniques

## Applications



# SES Series Servo Motors




Motor insulation level	F Class
Insulation withstand voltage	1500V 60s
Insulation resistance	DC500V , Up to 10MΩ
Motor temperature resistance level	B
Protection level	Fully enclosed self-cooling IP65 (except shaft penetration part)
Usage environment	Ambient temperature 0-40° Relative humidity 20-80% (no condensation)
Installation method	Flange installation
Direction of rotation	Under the forward rotation command, the rotation is counterclockwise (CCW) when viewed from the load side.



# 03

## Motion control

# SMC300 Series Motion Controller

-  Excellent Performance
-  Flexible Multifunction
-  Easy to Use  
Easy to Program
-  Easy to Connect  
Easy to Network



SMC300 medium-sized motion controller adopts IEC61131-3 programming language system and supports PLCopen standard programming language. Adopting a rack layout, each rack supports local expansion of 16 expansion modules, and the rack can be remotely expanded through EtherCAT industrial fieldbus.

## Product Advantages

- Supports up to 32 axes of EtherCAT bus control, supports absolute/relative, speed, torque, jog control, supports electronic gears, electronic cams, supports interpolation, origin return and other CNC commands
- Rich and complete application interfaces, supporting Ethernet/IP, making it easy to connect to HMI devices such as displays; supporting PLC cascading, enabling data sharing between multiple PLCs
- Easily implement advanced applications and support programming in 6 programming languages

## Applications





# SMC200 Series Mini PLC

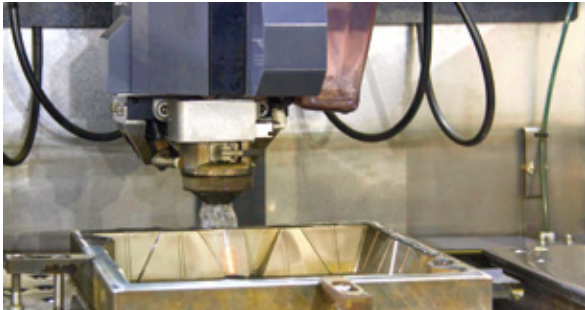
- Easy to Expand
- Excellent Performance
- Process Customization



## Product Advantages

- E bus 4-axis/6-axis/8-axis/16-axis optional
- Powerful communication functions (232/485/Eth/Type-C, etc.)
- Multiple communication protocols (HMI, Modbus-TCP, CANopen)
- Rich cam technology: supports chasing shear, flying shear, asymmetric curve, etc.
- High-performance axis capability: 1ms/16 axes (EtherCAT)
- Convenient HMI connection protocol, register address mapping
- Rich expansion modules (7 types of left extensions, 5 types of right extensions)
- Common programming languages (ladder diagram, instruction list, ST language)
- Excellent industry technology: intelligent optimized materials, high-speed dynamic compensation

## Applications



# HMI

- High Reliability
- Easy to Use
- Widely Used



## Product Advantages

- Various sizes, 7 inches, 10 inches, 15 inches
- High-speed CPU chip, dual-core, quad-core main control chip
- CE certification standards
- Rich communication interfaces, Ethernet, 232, 485
- Working temperature 0~50°C Storage temperature -20~60°C
- Independent software VMi Manager

Product Model	VMi10-07C20	VMi10-07C21	VMi10-10C20	VMi10-10C21	VMi10-15C21
Display	7" TFT LCD		10.1" TFT LCD		15.6" TFT LCD
Touchscreen	4-wire industrial resistive touch screen		4-wire industrial resistive touch screen		4-wire industrial resistive touch screen
CPU	ARM Cortxe-A7 Dual core 1.2GHz		ARM Cortxe-A7 Dual core 1.2GHz		ARM Cortxe-A53 Quad core 1.5GHz
Memory	128M Flash+128 DDR3		128M Flash+128 DDR3		1G Flash+8G DDR3
Ethernet	None	1-WAY 10M/100M	None	1-WAY 10M/100M	1-WAY 10M/100M
Serial Communication	1*RS232,1*RS485		1*RS232,1*RS485		1*RS232,2*RS485
IoT	None	Expandable 4G or WiFi	None	Expandable 4G or WiFi	Expandable 4G or WiFi
Size	202*165*43mm		272*215*43mm		395*258*52mm
Protection Level	Front panel: IP65; Back cover: IP20		Front panel: IP65; Back cover: IP20		Front panel: IP65; Back cover: IP20

# 04

## Integrated special machine

# EM618 Engineering Cabinet



High Reliability



Easy to Use



Widely Used

The EM618 series engineering cabinet machine is a high-power integrated frame-type integrated cabinet product developed on the EM560 platform. It has a large area of low-voltage electrical distribution space and can be flexibly configured with various low-voltage electrical appliances and independently formed into cabinets to meet the needs of various industries. application requirements.



### Product Advantages

- Stable operation with low frequency and high torque: 0.5Hz/150% rated torque is output smoothly to ensure smooth start-up of the ball mill without failure
- The convenient human-machine operation interface (touch screen) makes it easy to set multiple operating times and operating frequencies in each time period, and it is convenient to view operating information such as current and voltage through the human-machine interface
- Excellent current limiting capability: ensures that the control cabinet does not trip when the load fluctuates frequently
- Wide voltage input range, automatic voltage stabilization: ensures that when the grid voltage drops, the output can still meet the torque output requirements of the lifting equipment
- Wide speed range: meets the requirements of lifting equipment at high speed for light load and low speed for heavy load, and improves the working efficiency of the equipment
- Modbus communication interface is used to check the working status of the inverter
- The function of non-stop during instantaneous power outage can automatically feed back electric energy to ensure a certain torque output
- The inverter and the motor can be used with the same power, without enlarging the capacity of the inverter

### Applications





# EM650C Air Compressor All-in-One Machine



Energy Saving and Efficient



High Reliability



Optimize Device Performance



Precise Control



The EM650C series is a highly reliable and highly integrated air compressor dedicated integrated machine launched by Sine Electric. The EM650C is mainly aimed at permanent magnet synchronous motors and adopts speed sensorless vector control technology (SVC).

## Product Advantages

- High system integration: built-in 220V transformer to supply power to the solenoid valve; built-in industrial frequency cooling fan start and stop control switch; all-in-one machine is equipped with a dedicated touch screen for the air compressor system; integrated temperature and pressure acquisition and protection circuits, no need for expansion cards
- The control line adopts pluggable terminals and is designed to prevent wrong terminal insertion.
- All-in-one products integrate special software for the air compressor industry
- Working process of touch screen integrated air compressor system
- 50°C ambient temperature, no derating required
- Complete protection functions: fan phase sequence protection, fan overload and overcurrent protection, fan short circuit protection; main motor drive short circuit, overcurrent, overvoltage, overload, overheating, etc. multiple protections

## Applications



# EM650E PM Screw Air Compressor Inverter



High Efficiency and Energy Saving



Stable and Reliable



Excellent Performance



Simple and Easy to Use



EM650E permanent magnet screw air compressor special inverter is a special inverter for air compressor designed by Sine Electric. It has advanced speed sensorless vector control mode (SVC) and can easily drive synchronous motors. Our company continues to improve product reliability, stability and ease of use, and is widely used in the permanent magnet screw air compressor industry.

## Product Advantages

- Supports V/F control technology (VVF) and speed sensorless vector control technology (SVC), which can drive permanent magnet synchronous motors.
- Independent air duct design and standard PCB coating provide stronger environmental adaptability and reliable operation at 50°C at full load.
- All-metal floor design, higher structural strength, while effectively reducing motor induced electricity
- Complete protection functions: short circuit, overcurrent, overvoltage, overload, overheating and other multiple protections
- Built-in PID, simple PLC, multi-point V/F polyline, multiple braking methods, instantaneous non-stop, torque control, automatic voltage stabilization function (AVR) and other functions to meet complex industrial field applications

## Applications



# TC760 Special Inverter for Tower Crane



Zero Servo Function



Over Speed Protection



Stable and Reliable



High Performance



The TC760 tower crane dedicated inverter is a high-performance inverter launched by Sine Electric specifically for lifting applications. It can be used for closed-loop lifting applications such as tower crane lifting, open-loop lifting applications such as construction elevators, and tower crane rotation and luffing applications

## Product Advantages

- Closed-loop vector control, low-frequency and high-torque stable operation: 0Hz/150% rated torque is output smoothly to ensure that the lifting equipment operates smoothly during starting, rising and falling.
- Zero servo function: When the encoder is connected, even if the brake fails, the frequency converter can drive the motor to control the full load to stay in the air or to be lowered at a controlled low speed, providing a second level of safety protection for the lifting equipment.
- Overspeed protection: When the encoder is connected, it has the functions of parking overspeed protection and running overspeed protection, which can promptly detect speed abnormalities and brake braking force abnormalities during the lifting process to prevent hook slip accidents.
- Brake-specific control logic: controls the lifting equipment's brakes to open and close in a reasonable sequence, ensuring the work safety of the system and extending the service life of the braking system.

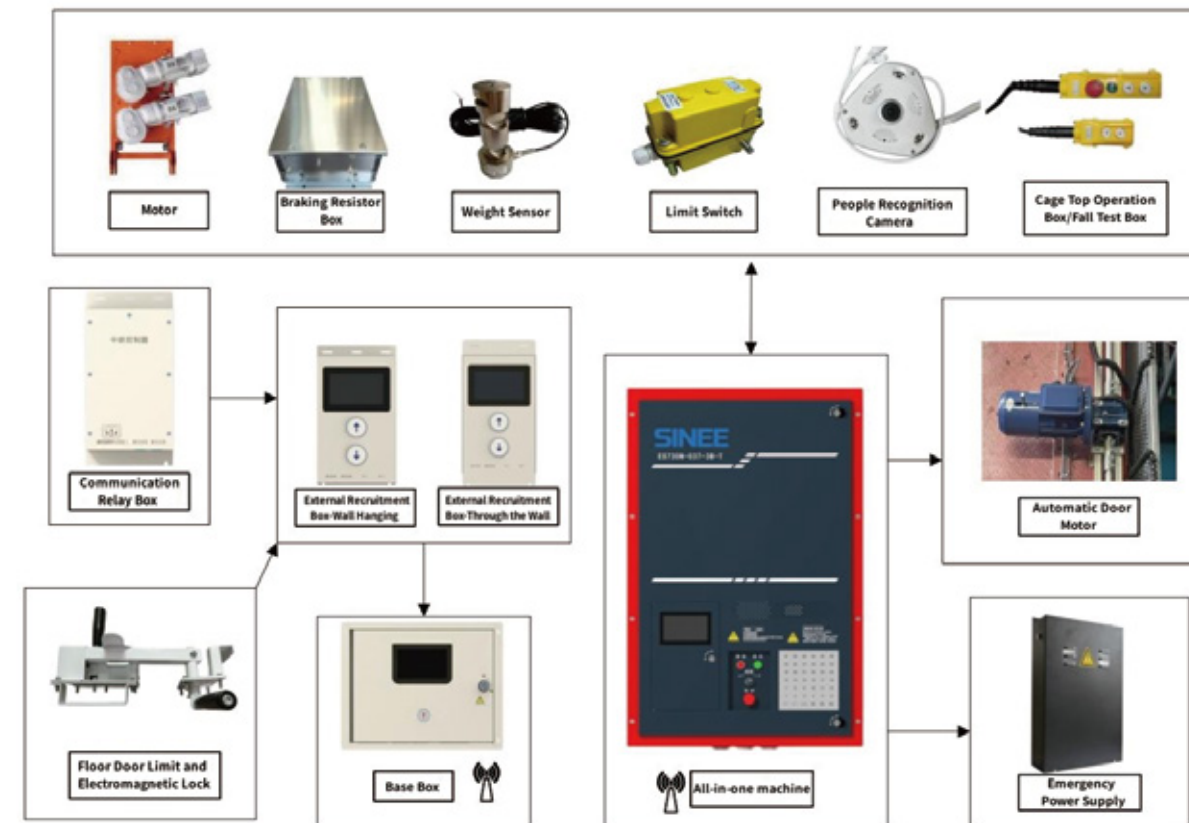
## Applications



# ES730CN Construction Elevator Integrated Controller

Sine Construction Lift Integrated Controller is a special model launched by Sine Electric to meet the needs of cab-less elevators.

This product integrates variable frequency drive, brake control, voice broadcast, HMI touch screen, driver's console, button collection, door machine control, electromagnetic lock control, floor door limit control, emergency power supply, wireless module and other functions into one, becoming a smart elevator. The application provides a complete control solution.



## Product Advantages

- Professional brake control logic: the default brake release frequency is 1.0HZ and the closing frequency is 1.0HZ, which makes the wear of the brake almost zero, ensuring more accurate leveling and better comfort.
- Emergency power supply: If the elevator accidentally loses power during use, the emergency power supply function is turned on in the base box. The battery in the emergency power supply supports the safe operation of the hanging box to the ground.
- Door machine control: connected to anti-pinch and light curtains, the inlet and outlet doors can be automatically opened and closed. The door opening and closing process is stable and smooth. The opening method of the inlet and outlet doors on each floor can be set independently, making it more flexible to use;
- Brake timing detection: When the cage is stationary on the base floor and the brake detection conditions are met, the system will detect the brake according to the preset time. During the detection period, there will be voice prompts on the base box and the inner cage to ensure that the brake is always in a safe state. Carry out homework;
- Brake current detection: During operation, the system compares the current flowing through the brake coil with the sum of the preset brake rated current. If the brake is in an abnormal state, the display will prompt a brake open circuit or short circuit fault to ensure that the brake is safe during operation. state;
- Open-loop encoder detection: In open-loop mode, detect whether the encoder has missing pulses or over-pulses to avoid inaccurate leveling due to loose encoder coupling when used in open loop.



# EX510C Drawing All-in-One Machine



Stable and Reliable



Easy to Install



Easy to Debug



Multifunctions



## Product Advantages

- Integrated special machine, traction, cable take-up and cable arrangement are integrated together. No electric control cabinet is needed. It can be used after connecting the external power lines and signal lines
- Built-in automatic compensation function for cable arrangement, real-time compensation for disc width, ensuring smooth cable take-up and no wire jamming during pay-out
- Advanced winding PID algorithm, stable winding tension
- Debugging is simple and convenient, just set a few parameters
- It is rich in functions and integrates functions such as induction meter counting, frequency meter counting, weight counting, wire break protection, and manual fine-tuning of cable arrangement.
- Supports remote management and monitoring, and can view current equipment operating status, output and other information in real time

## Applications



05  
New energy

# One-Stop Energy Storage System

-  Independent Control
-  Minimalist Deployment
-  Perfectly Compatible
-  Ultimate Security

Battery Type	Lead carbon	Lithium battery
Power	22kmh	33.12kmh
Voltage	DC bus side: 42VDC~58VDC/ Energy storage battery pack: 38.5VDC~53.9VDC	
Current	Charging: 1A~109A/ Discharging: 0A~95A	
Voltage Stabilization Accuracy	≤ 1%	<1%
Overcurrent Protection	Maximum 150A	
Power	6kW, 12kW, 18kW, 24kW, optional configurations	
MTBF	>100,000 hours (25°C)	
Protection Level	IP21	
Communication Method	Support modbus standard communication protocol, Ethernet	



The one-stop energy storage system for communication base stations is specially designed for base station energy storage. Users can use the energy storage system to discharge during peak load periods and charge from the grid during low load periods, reducing peak load demand and saving electricity costs, thereby achieving the purpose of improving load characteristics and participating in system peak regulation, while saving electricity costs and maximizing arbitrage.

## Applications

The one-stop energy storage system for communication base stations is perfectly compatible with mainstream batteries on the market and can match the space, load-bearing, and safety requirements of different computer rooms.





Transmission Equipment Room Access Equipment Room Stacking Equipment Room	Small load, large space, suitable for lead-carbon battery energy storage system
Convergence Computer Room	Large load, large space, high reliability requirements, suitable for lead carbon battery & lithium battery energy storage system
Base Station Computer Room	Large load, small space, suitable for lithium battery energy storage system
Outdoor Base Station	Large load, small space, suitable for lithium battery energy storage system

# M-Block UPS

-  Small Input, Large Output
-  Rich Economic Benefits
-  Economical and Environmentally
-  More Choices, Better Services



# Terminal Grid Adaptive Regulator

-  Respond Quickly
-  IGBT Independent Control Solution
-  Air Duct Design
-  Resonance Suppression Technology





# APPLICATION SCENARIOS

## 应用场景

### Logistics Equipment

Sine Electric began to focus on the application of equipment drives and actuators in the logistics industry in 2017, providing system integrators and stand-alone equipment manufacturers with highly stable, highly responsive, customized and cost-effective servo systems and solutions

**Application Equipment:** Bag supply table system/Balance wheel sorter/Single piece separation system

**Solution Composition:** EA350 series servo driver EA196 series servo driver EA300E EtherCAT servo driver

**Application Site:**



### Oil Drilling Equipment

Oil is called "black gold". Facing the complex and severe external environment of the world's energy industry, my country's petrochemical industry is facing huge pressure for sustainable development. Sine Electric's special petroleum and petrochemical aircraft assists the localization of major petroleum and petrochemical technical equipment

**Application Equipment:** Direct drive screw pump/Beam pumping unit/Winch pumping unit/Oil field water injection pump/submersible oil pump

**Solution Composition:** SINEE Petroleum and Petrochemical Special Plane

**Application Site:**



### Air Compressor

The Sine Electric Air Compressor Frequency Converter accurately controls the motor speed to adjust the air compressor output pressure on demand, which not only significantly improves energy utilization efficiency, but also reduces mechanical wear and noise pollution, and extends the service life of the equipment.

**Application Equipment:** Oil-injected screw air compressor

**Solution Composition:** EM650E PM screw air compressor inverter EM650C air compressor all-in-one machine

**Application Site:**



### Construction Lift

Sine Electric provides high-performance, reliable, safe and comfortable drive and control solutions for the construction lift industry through continuous technological innovation and product optimization.

**Application Equipment:** Construction lifts

**Solution Composition:** ES710 series floor external recruitment control box, SINEE 730 series internal recruitment integrated controller, base box

**Application Site:**





# APPLICATION SCENARIOS

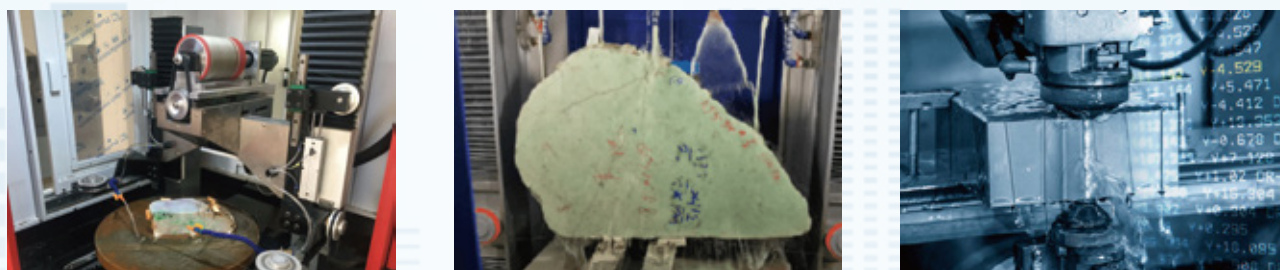
## Wire Cutting Equipment

With the rapid development of industrial automation and intelligent manufacturing, the wire cutting industry's demand for high-precision and high-efficiency production equipment continues to increase. As a key device for controlling speed and position, servo drives are increasingly used in the wire cutting industry.

**Application Equipment:** Multi-wire cutting machine/Single-wire cutting machine

**Solution Composition:** EA300E EtherCAT servo driver EA350 series servo driver

**Application Site:**



## Printing Equipment

Sine Electric has focused on the printing and packaging equipment rewinding and unwinding industry for more than 10 years. It is one of the most prolific inverter manufacturers in China engaged in roll tension application solutions, providing stable, high-efficiency and professionally customized printing and packaging equipment to multiple equipment manufacturers. Drive products and system solutions.

**Application Equipment:** Printing machine/slitting machine/Coating machine/Laminating machine, etc

**Solution Composition:** EM760 series inverter EM730 series inverter EM700 series inverter

**Application Site:** EA350 series servo drive



## Cable Equipment

The cable equipment industry is undergoing transformation and upgrading from traditional manufacturing to intelligent manufacturing. With the application of digital and intelligent technology, frequency converters not only improve production efficiency, but also reduce production costs and energy consumption.

**Application Equipment:** Stranding machine/Copper wire annealing mill/Diameter wire drawing machine

**Solution Composition:** EX510C all-in-one wire drawing machine EA350 series servo driver

**Application Site:** EM760 series inverter LC760 series inverter



## Pressure Forming Equipment

With the continuous advancement of industrial automation, more and more companies are beginning to use automated production equipment to improve production efficiency and product quality. As one of the important production equipment, pressure molding equipment's automation level is also constantly improving.

**Application Equipment:** Punch press/Servo punch press/Electric screw press/CNC spinning press

**Solution Composition:** M730-PF EM760 series frequency converter EA230 series servo driver

**Application Site:** EA233 series servo driver





# Service



## Service

-  **Pre-Sales Service**
-  **After-Sales Service**
-  **Factory Repair**
-  **Online Services**

- |                        |                   |                 |                      |
|------------------------|-------------------|-----------------|----------------------|
| Technical Guidance     | On-site Repair    | Fault Detection | Consultation&answers |
| Installation&Debugging | On-site Debugging | Maintenance     | Technical Exchange   |

*Provide Quality Services to Customers*  
*Customer Satisfaction is Our Eternal Goal*

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