

# Electric Vehicle Motor Controller



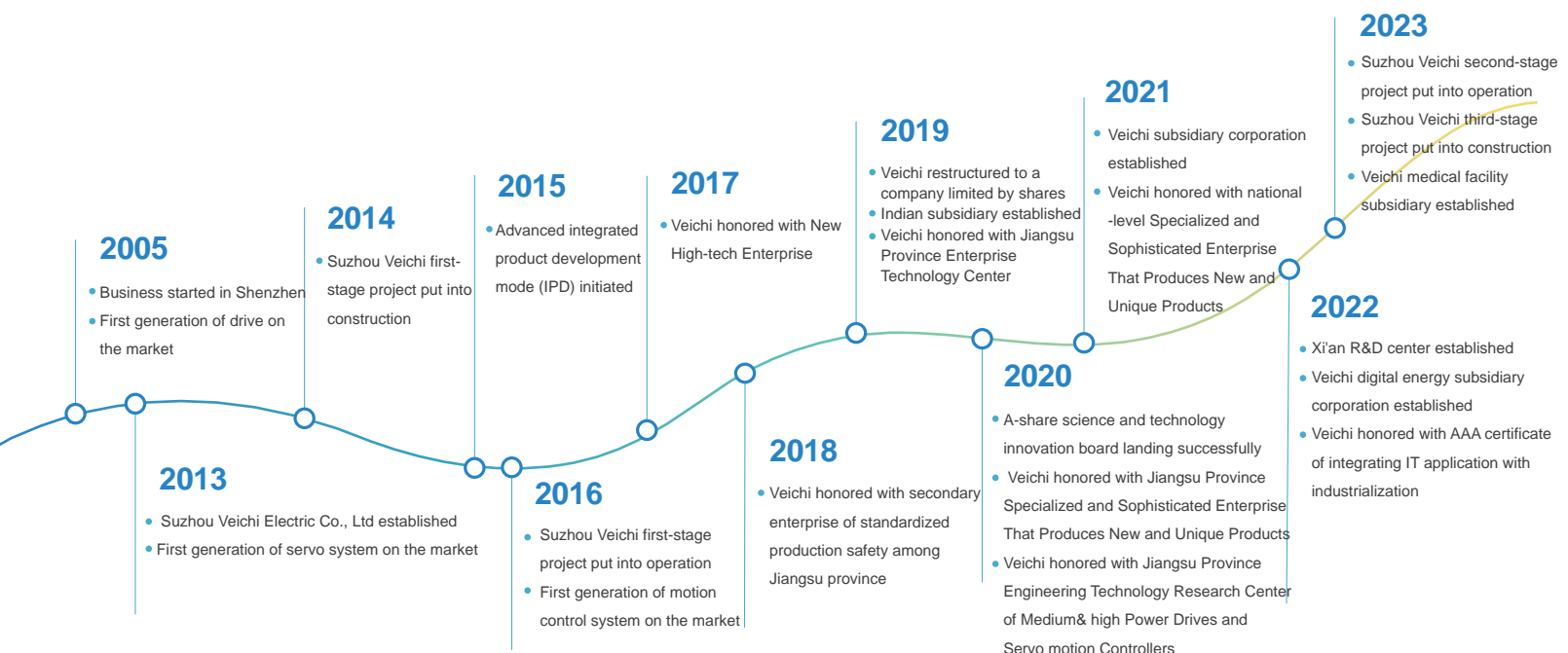
# About us

Veichi (stock code: 688698) has always committed to electric drive and industrial control since its foundation. As an all-round company engaged in R & D, manufacturing and sales on high-tech industrial automation products, Veichi has been identified with several honorary titles such as Jiangsu Provincial-level Enterprise Technology Center, Jiangsu Private-own Technical Enterprise, Specialized and Sophisticated Enterprises That Produce New and Unique Products, Jiangsu Engineering Research Center, Jiangsu New and High-tech Enterprise and Suzhou City-level Gazelle Company (High Growth Enterprise) and has obtained the highest level of enterprise credit. Through years of independent research and development, Veichi now has been authorized with patents totaling 148 by the end of December, 2022, and among them 36 are for invention. Having established R & D center and manufacturing bases in Suzhou, Shenzhen and Xi'an, added with the wholly-owned subsidiary in India, Veichi now are dealing with customers from several nations and regions and has the full capability to provide safe, competitive and trustworthy products and services to customers from the larger world.

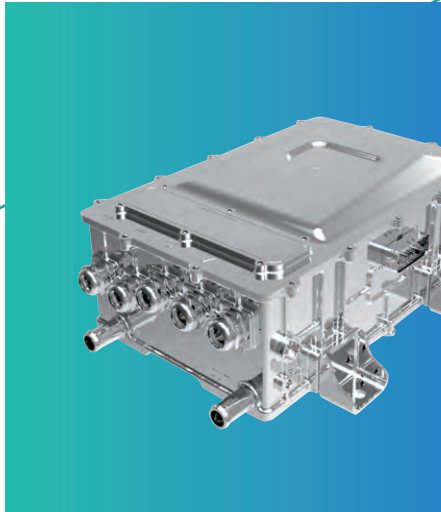
Veichi provides various products including drives from 0.4kW to 5,600kW, servo systems from 50W to 200kW, motion controllers, PLC and HMI, which are applied in all sorts of fields like lifting, mining, rail traffic, machine tools, compressors, plastic equipment, photo-voltaic pumping, construction, robots/mechanical arms, printing and packaging, chemical fibers for textile use, metallurgy, municipal works, petrol work and chemical engineering.

20 service stations and 182 contracted distributors cover 31 provinces on China mainland and Hong Kong, Macao and Taiwan regions, which guarantees a massive and efficient network for sales and services for our customers.

Veichi will continue to abide by the operation philosophy, that is, guided by market demand and driven by technological innovation, enlarge and enhance its core business like drives, servo systems, control systems and SIoT. And Veichi will always be devoted to providing quality products and services for customers and further make contributions to the development of electric drive and industrial control.



# Electric Vehicle Motor Controller



# Product Application



Mini electric car



Electric forklift truck



Electric sanitation truck



High-speed electric motorcycle

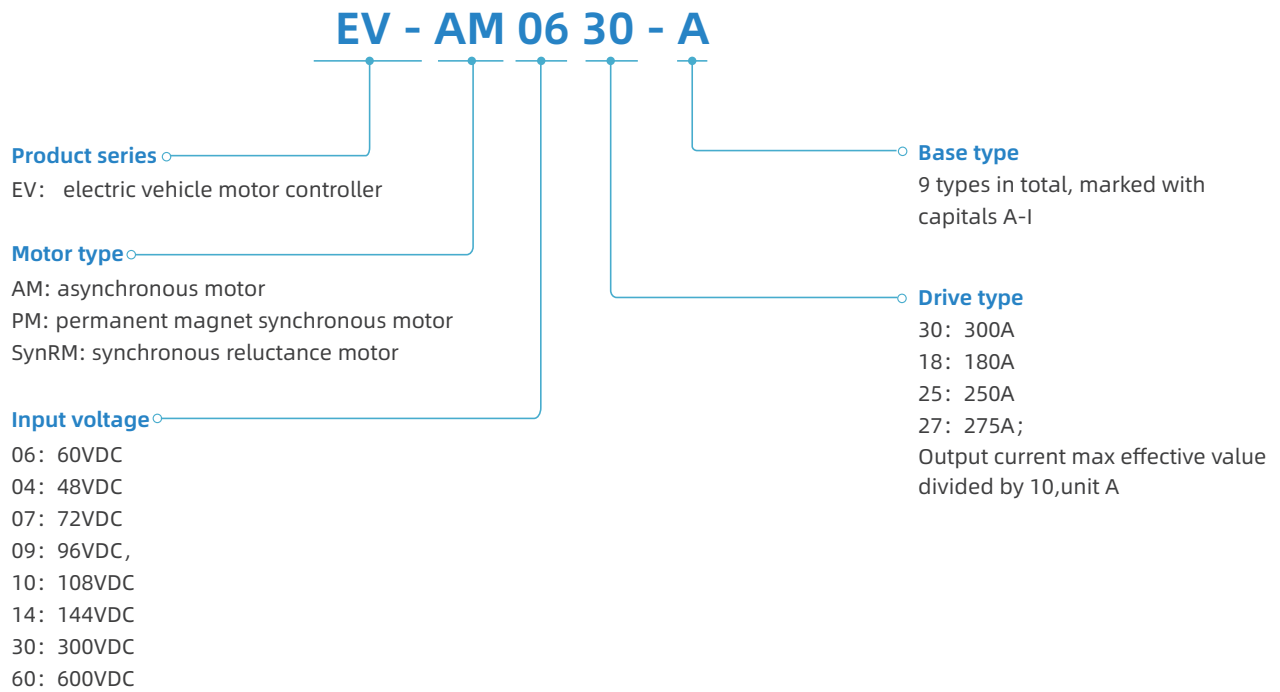


Electric flatbed truck



Aerial work platform

## Name Rule



### Special electric vehicle controller model

A-type base	EV-AM0618-A	EV-AM0625-A
	EV-AM0627-A	EV-AM0630-A

### Mini electric car controller model

C-type base	EV-AM0426-C	EV-AM0626-C
	EV-AM0726-C	
D-type base	EV-AM0630-D	EV-AM0730-D
E-type base	EV-AM0635-E	EV-AM0735-E

### Passenger electric vehicles/logistics vehicles/ commercial electric vehicles controller model

F-type base	EV-AM0645-F	EV-AM0745-F	EV-AM0945-F	EV-AM1045-F	EV-AM1445-F
G-type base	EV-AM0650-G	EV-AM0750-G	EV-AM0950-G	EV-AM1050-G	EV-AM1450-G

## EV-AM06XX-A AC Motor Controller

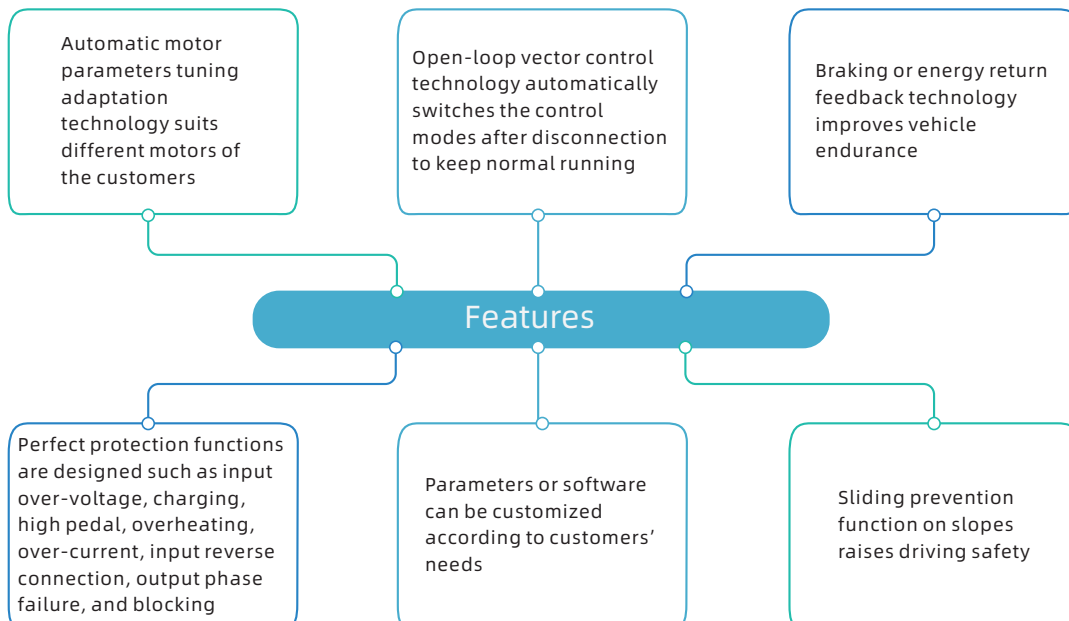
### Description

EV-AM series AC motor controller features safety, stability, high efficiency, low noise and easy installation. This series controller adopts the international leading vector control technology to ensure that the motor can run smoothly and safely in different modes even when the encoder is disconnected.

EV-AM series AC motor controller is suitable for electric cars and electric logistics vehicles, etc.



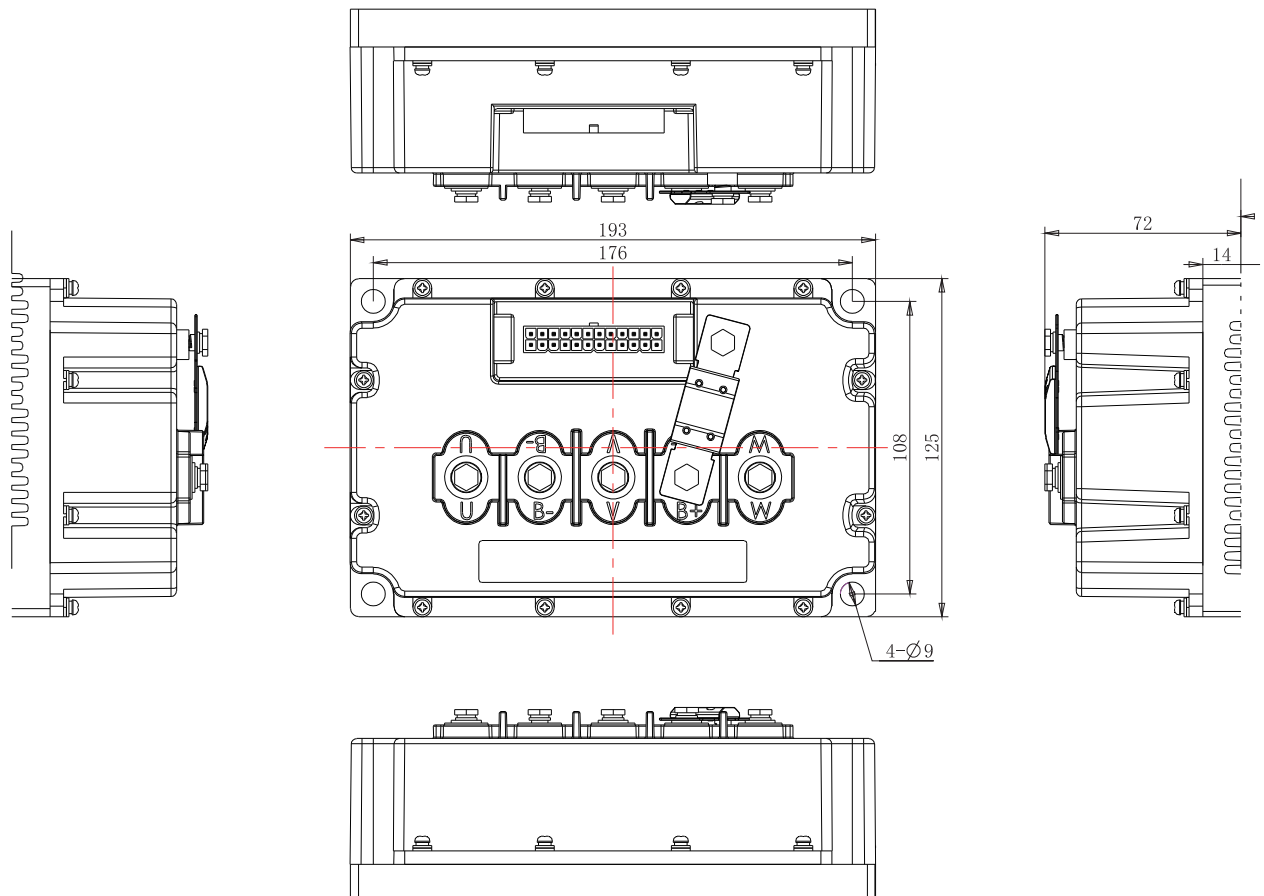
### Features



## Technical Specification

Performance and Specification				
	Model	EV-AM0618-A	EV-AM0625-A	EV-AM0627-A
Electrical characteristics	Rated working voltage DC/V	24V~72V		
	Input voltage range DC/V	24~86		
	Min. starting voltage DC/V	24		
	Max protective voltage DC/V	90		
	Max output current AC/A	275		
	Rated current AC/A	60~100		
	Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control		
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors			
Efficiency	98%			
Communication method	CAN (2.0) communication			
Storage ambient temperature range	-40°C~75°C			
Working ambient temperature range	-30°C~55°C			
Cooling method	Natural cooling			
Protection level	IP65			
Weight	1.4kg			

## Outer Dimension



## EV-AM0626-C AC Motor Controller

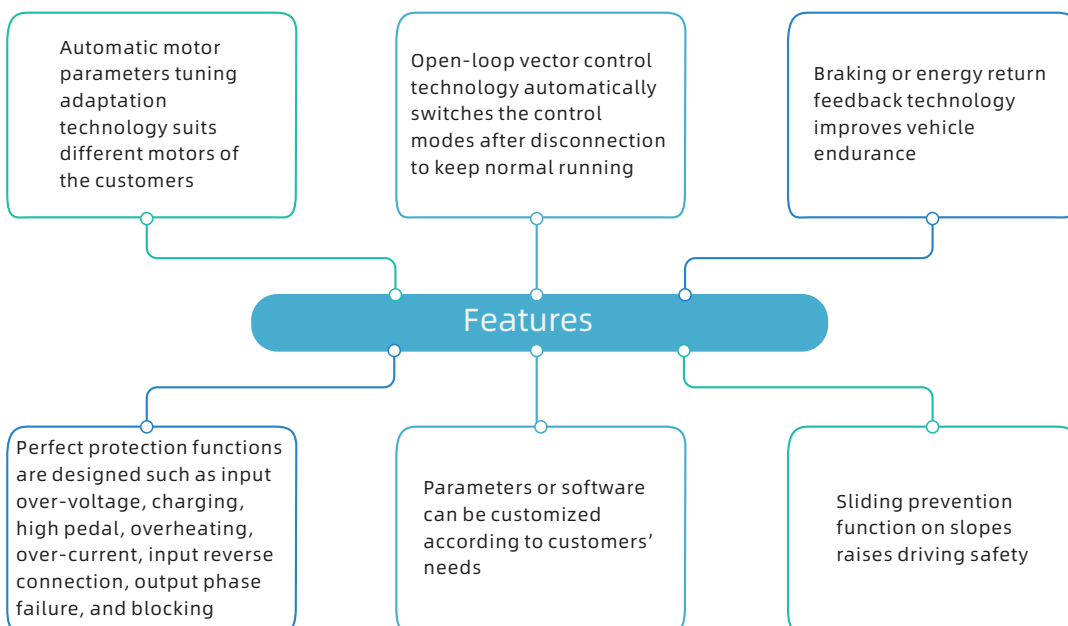
### Description

EV-AM series AC motor controller features safety, stability, high efficiency, low noise and easy installation. This series controller adopts the international leading vector control technology to ensure that the motor can run smoothly and safely in different modes even when the encoder is disconnected.

EV-AM series AC motor controller is suitable for electric cars and electric logistics vehicles, etc.



### Features

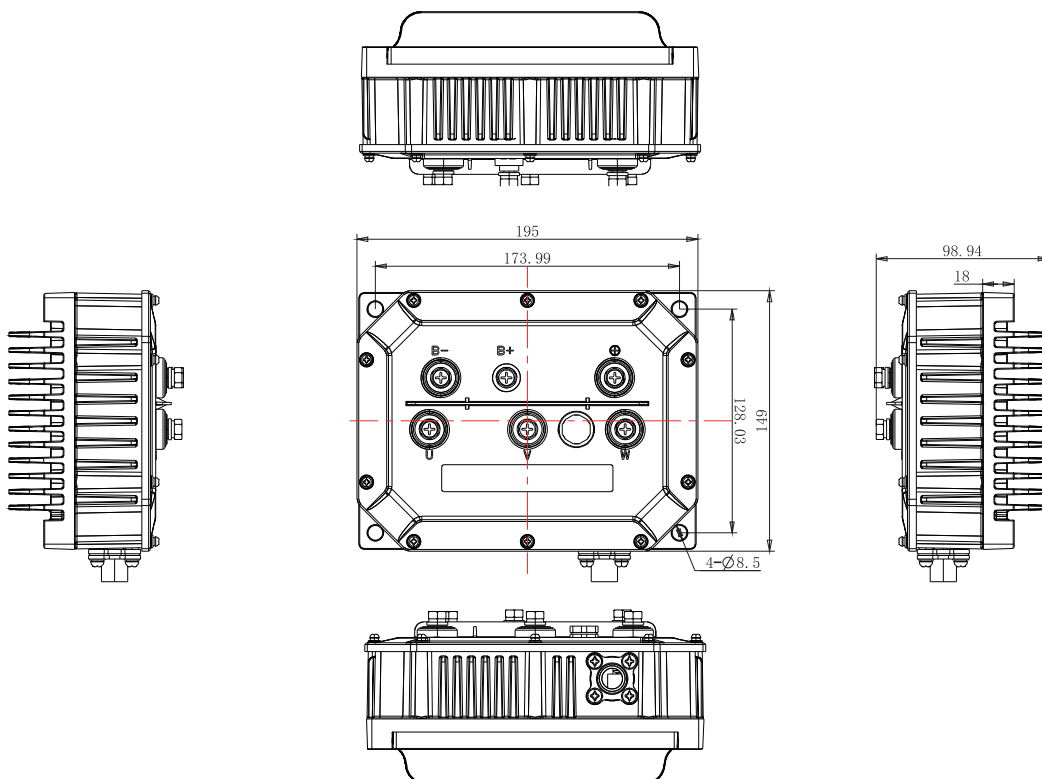




## Technical Specification

Performance and Specification				
Model		EV-AM0426-C	EV-AM0626-C	EV-AM0726-C
Electrical characteristics	Rated working voltage DC/V	48V	60	72
	Input voltage range DC/V	30~60	40~72	58~86
	Min. starting voltage DC/V	35	40	45
	Max protective voltage DC/V	58	72	90
	Max output current AC/A	275	275	275
	Rated current AC/A	85	85	85
	Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control		
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors			
Efficiency	98%			
Communication method	CAN (2.0) communication			
Storage ambient temperature range	-40°C~75°C			
Working ambient temperature range	-30°C~55°C			
Cooling method	Natural cooling			
Protection level	IP65			
Vibration standard	GB/T2423			
Insulation property	Input and output to case: DC1000V, leakage current <0.05mA, insulation resistance >20MΩ			
Weight	1.5kg			

## Outer Dimension



## EV-AM0630-D AC Motor Controller

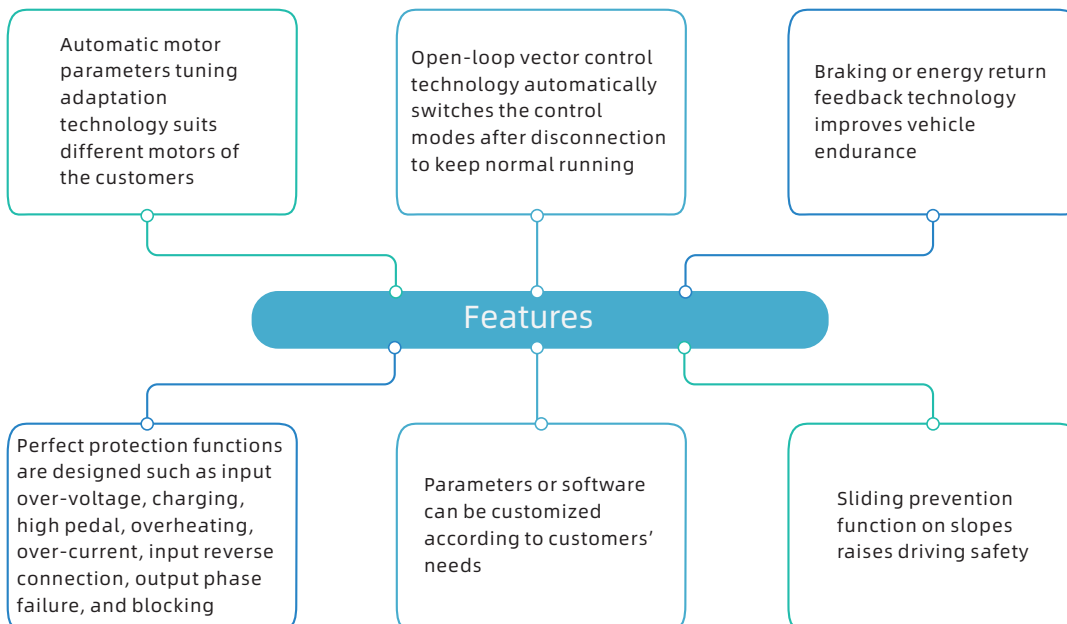
### Description

EV-AM series AC motor controller features safety, stability, high efficiency, low noise and easy installation. This series controller adopts the international leading vector control technology to ensure that the motor can run smoothly and safely in different modes even when the encoder is disconnected.

EV-AM series AC motor controller is suitable for electric cars and electric logistics vehicles, etc.



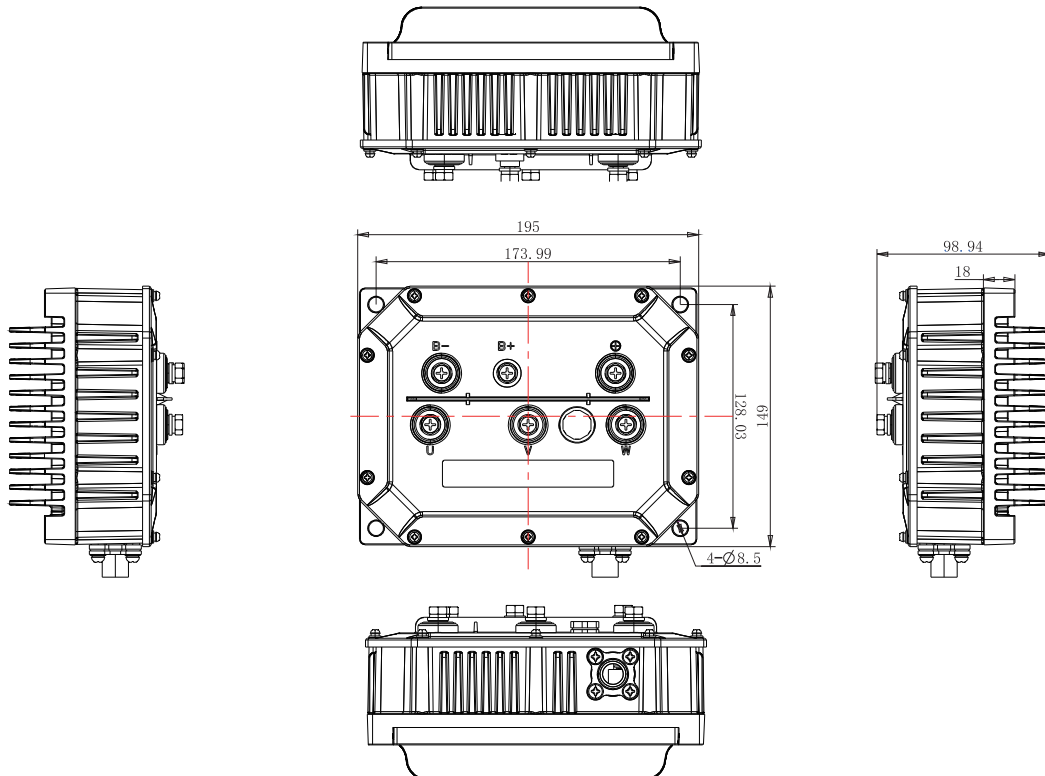
### Features



## Technical Specification

Performance and Specification			
	Model	EV-AM0630-D	EV-AM0730-D
Electrical characteristics	Rated working voltage DC/V	60	72
	Input voltage range DC/V	40~72	58~86
	Min. starting voltage DC/V	40	45
	Max protective voltage DC/V	72	90
	Max output current AC/A	320	320
	Rated current AC/A	120	120
	Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control	
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors		
Efficiency	98%		
Communication method	CAN (2.0) communication		
Storage ambient temperature range	-40°C~75°C		
Working ambient temperature range	-30°C~55°C		
Cooling method	Natural cooling		
Protection level	IP66		
Vibration standard	GB/T2423		
Insulation property	Input and output to case: DC1000V, leakage current <0.05mA, insulation resistance >20MΩ		
Weight	2.3kg		

## Outer Dimension



## EV-AM0635-E AC Motor Controller

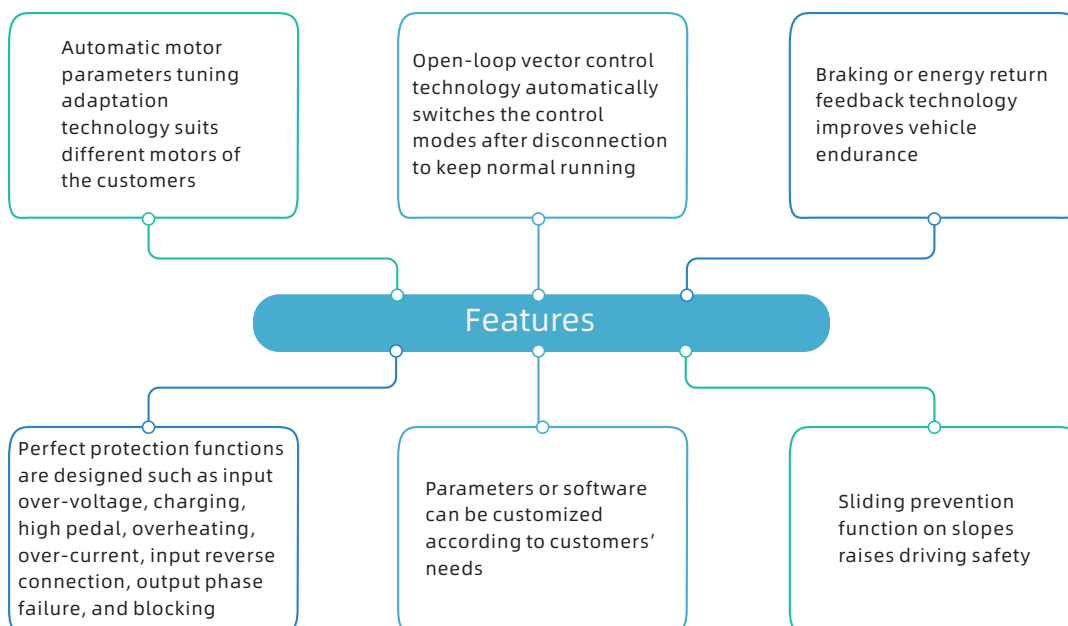
### Description

EV-AM series AC motor controller features safety, stability, high efficiency, low noise and easy installation. This series controller adopts the international leading vector control technology to ensure that the motor can run smoothly and safely in different modes even when the encoder is disconnected.

EV-AM series AC motor controller is suitable for electric cars and electric logistics vehicles, etc.



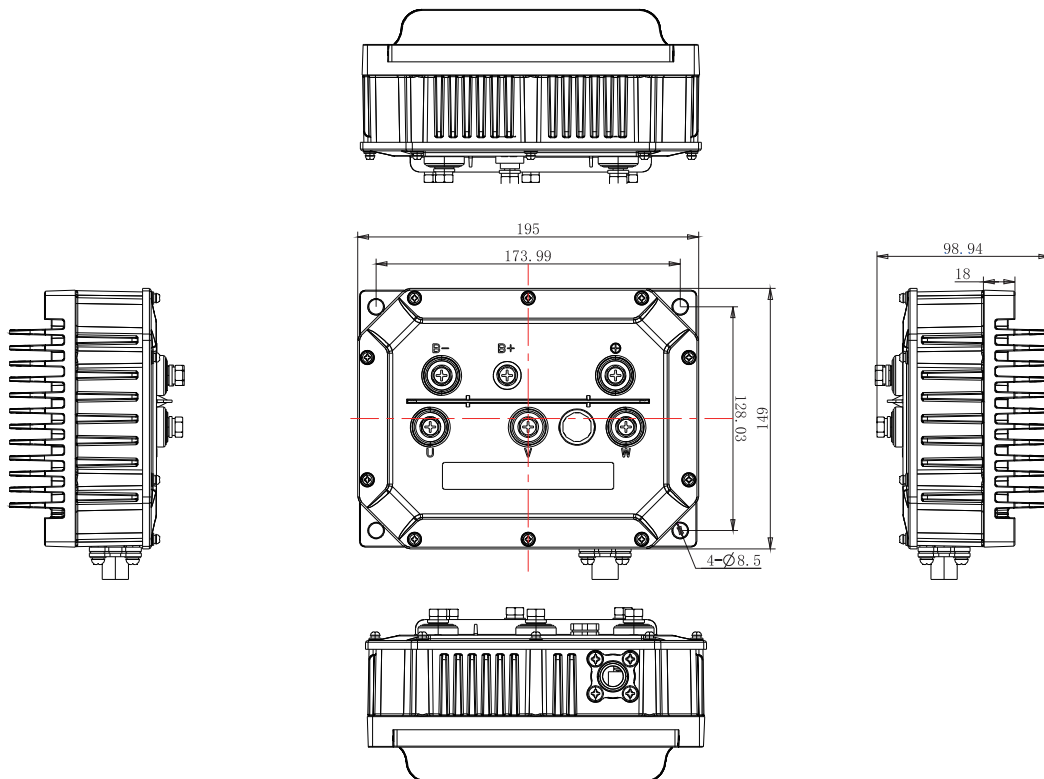
### Features



## Technical Specification

Performance and Specification			
	Model	EV-AM0635-E	EV-AM0735-E
Electrical characteristics	Rated working voltage DC/V	60	72
	Input voltage range DC/V	40~72	58~86
	Min. starting voltage DC/V	40	45
	Max protective voltage DC/V	72	90
	Max output current AC/A	375	375
	Rated current AC/A	120	120
Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control		
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors		
Efficiency	98%		
Communication method	CAN (2.0) communication		
Storage ambient temperature range	-40°C~75°C		
Working ambient temperature range	-30°C~55°C		
Cooling method	Natural cooling		
Protection level	IP66		
Vibration standard	GB/T2423		
Insulation property	Input and output to case: DC1000V, leakage current <0.05mA, insulation resistance >20MΩ		
Weight	2.3kg		

## Outer Dimension



## EV-AM0745-F AC Motor Controller

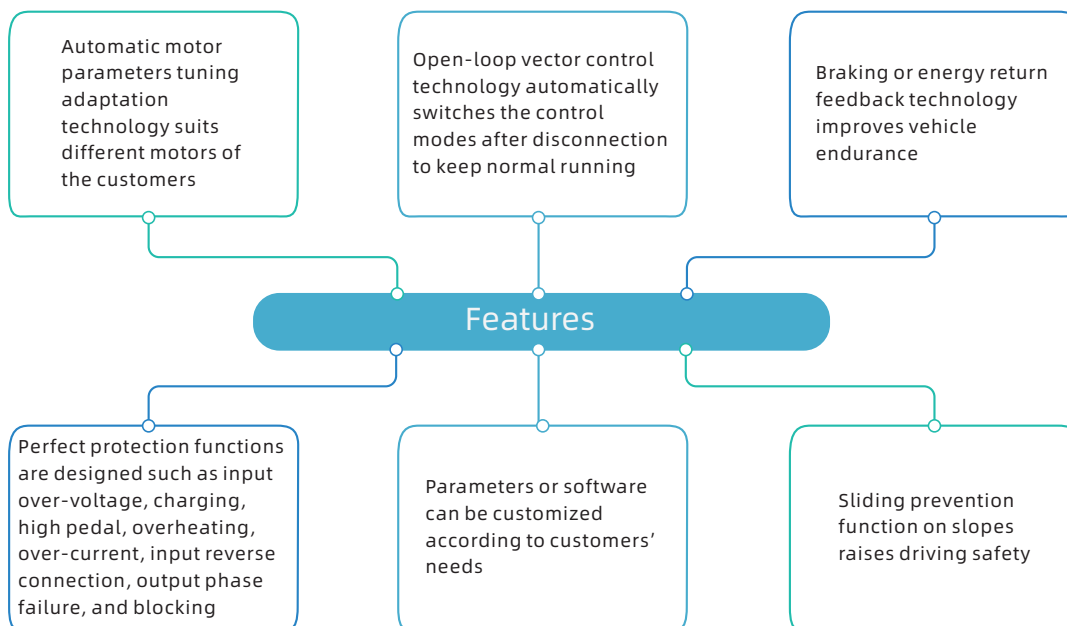
### Description

EV-AM series AC motor controller features safety, stability, high efficiency, low noise and easy installation. This series controller adopts the international leading vector control technology to ensure that the motor can run smoothly and safely in different modes even when the encoder is disconnected.

EV-AM series AC motor controller is suitable for electric cars and electric logistics vehicles, etc.



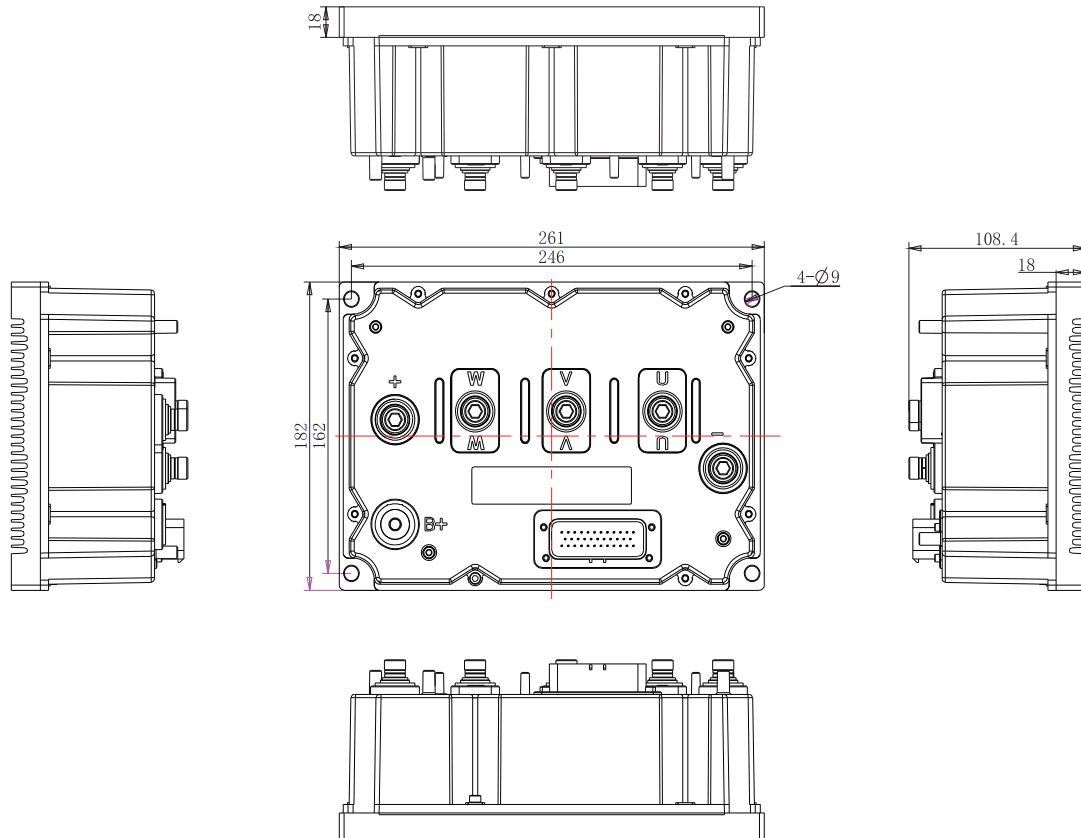
### Features



## Technical Specification

Performance and Specification			
	Model	EV-AM0645-F	EV-AM0745-F
Electrical characteristics	Rated working voltage DC/V	60	72
	Input voltage range DC/V	40~72	58~86
	Min. starting voltage DC/V	40	45
	Max protective voltage DC/V	72	90
	Max output current AC/A	400	400
	Rated current AC/A	120	120
Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control		
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors		
Efficiency	98%		
Communication method	CAN (2.0) communication		
Storage ambient temperature range	-40°C~75°C		
Working ambient temperature range	-30°C~55°C		
Cooling method	Natural cooling		
Protection level	IP66		
Vibration standard	GB/T2423		
Insulation property	Input and output to case: DC1000V, leakage current <0.05mA, insulation resistance >20MΩ		
Weight	2.3kg		

## Outer Dimension



## EV-AM1050-G AC Motor Controller

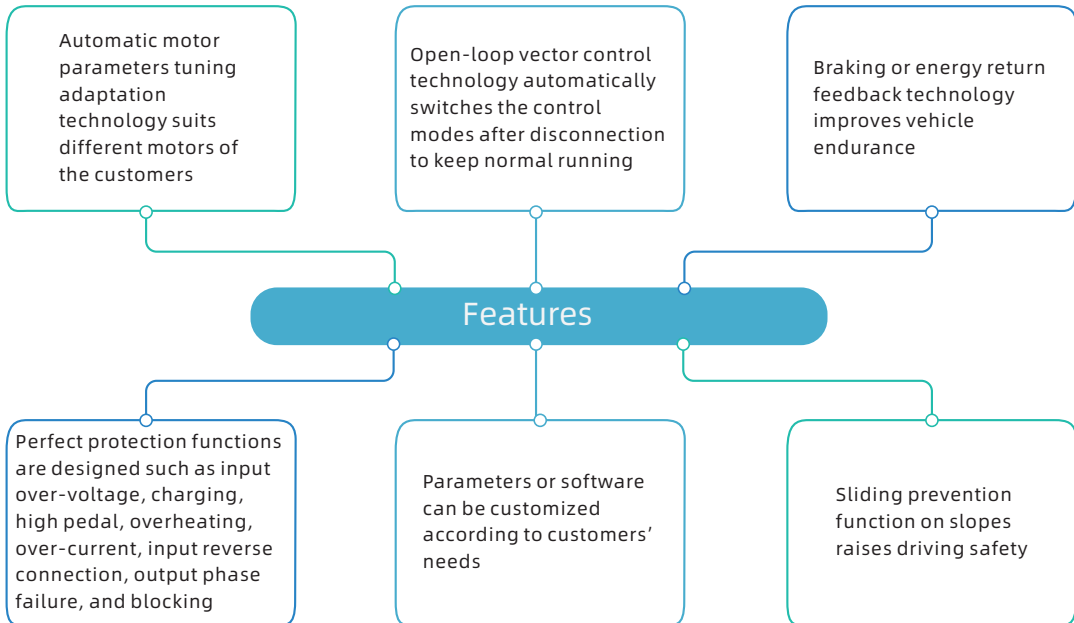
### Description

EV-AM series AC motor controller features safety, stability, high efficiency, low noise and easy installation. This series controller adopts the international leading vector control technology to ensure that the motor can run smoothly and safely in different modes even when the encoder is disconnected.

EV-AM series AC motor controller is suitable for electric cars and electric logistics vehicles, etc.



### Features

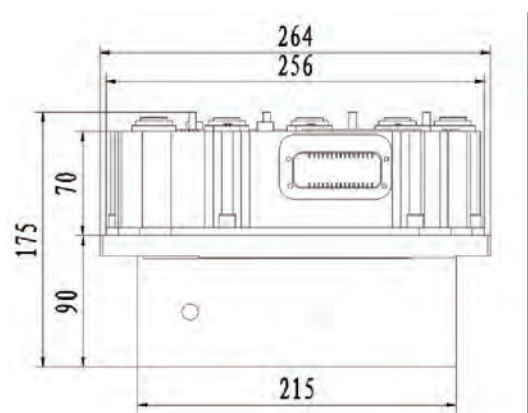
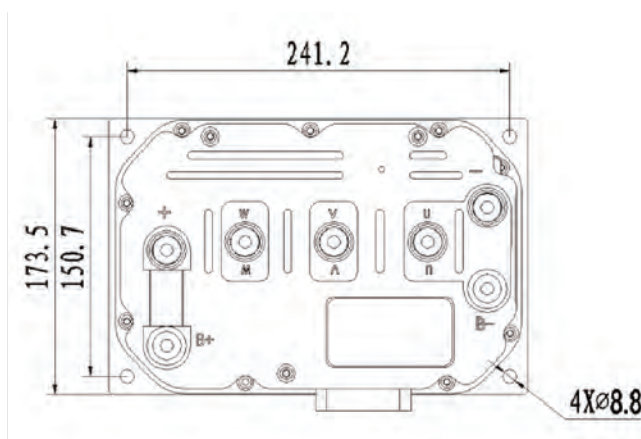




## Technical Specification

Performance and Specification					
	Model	EV-AM0750-G	EV-AM0950-G	EV-AM0950-G	EV-AM0950-G
Electrical characteristics	Rated working voltage DC/V	72	96	108 (lithium battery)	144 (lithium battery)
	Input voltage range DC/V	58~86	80~120	80~125	100~180
	Min. starting voltage DC/V	45	50	50	60
	Max protective voltage DC/V	86	120	125	180
	Max output current AC/A	500	500	500	500
	Rated current AC/A	120	120	120	120
	Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control			
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors				
Efficiency	98%				
Communication method	CAN (2.0) communication				
Storage ambient temperature range	-40°C~75°C				
Working ambient temperature range	-30°C~55°C				
Cooling method	Natural cooling				
Protection level	IP66				
Vibration standard	GB/T2423				
Insulation property	Input and output to case: DC1000V, leakage current <0.05mA, insulation resistance >20MΩ				
Weight	2.3kg				

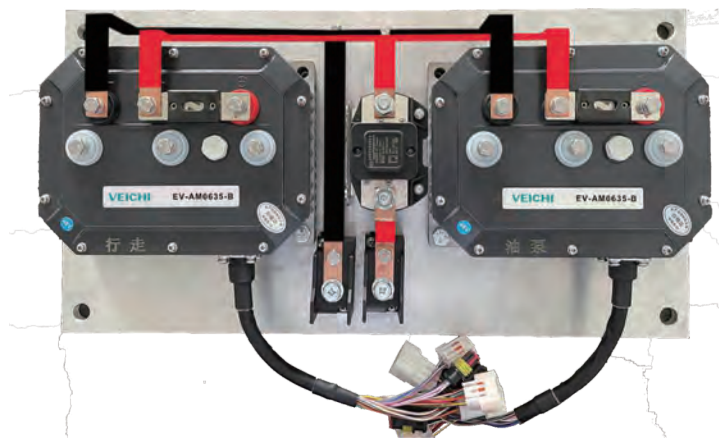
## Outer Dimension



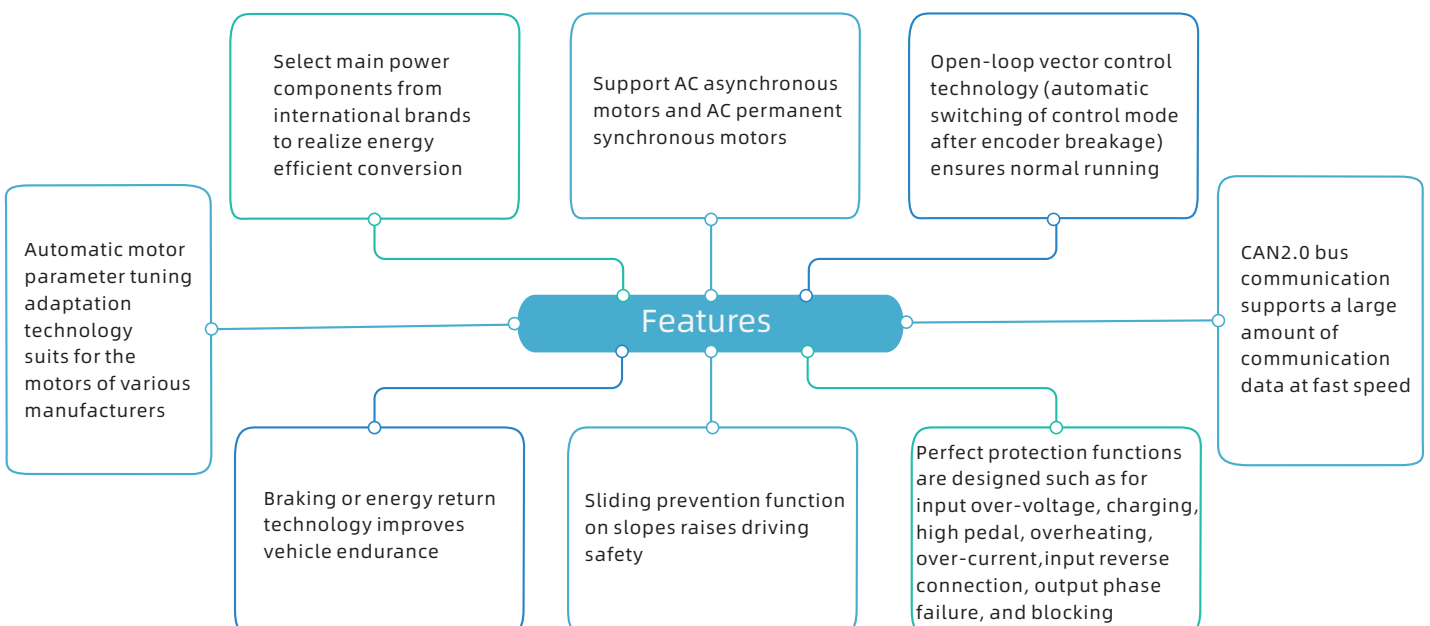
## EV-AM06XX-B Forklift Controller

### Description

EV-AM-B-series forklift controller has the features of safety, stability, high efficiency, low noise and easy installation. This series of controller adopts the international leading vector control technology so it's more cost-effective and more comfortable to operate than the same products from foreign brands.



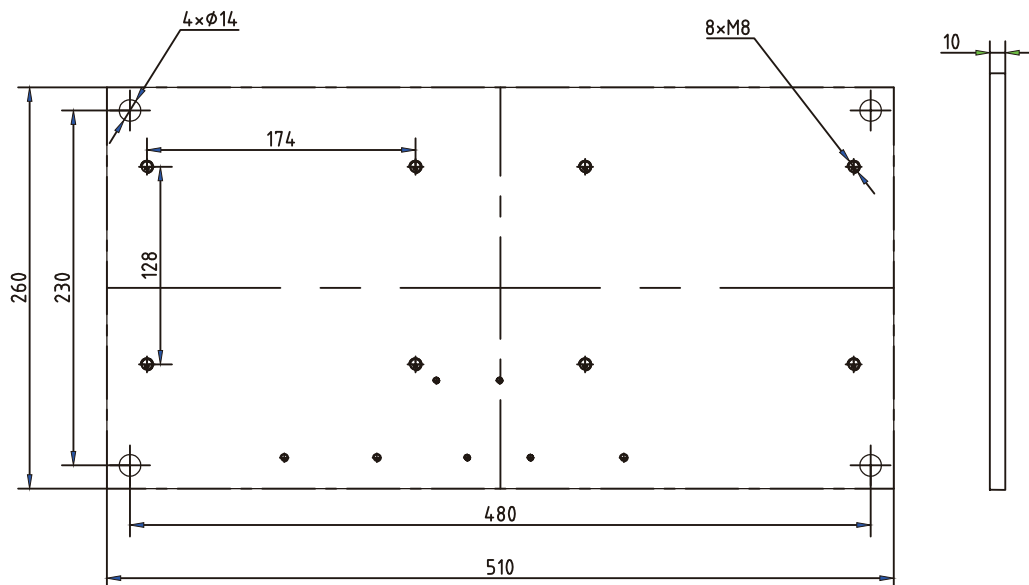
### Features



## Technical Specification

Performance and Specification		
	Model	EV-AM06XX-B
Electrical characteristics	Rated working voltage DC/V	24-80
	Max protective voltage DC/V	90
	Rated current AC/A	120
	Max output current AC/A	400
	Motor control mode	Vector control with speed sensor (FOC)/torque control Vector control without speed sensor (SVC)/torque control
Adaptive motor	Three-phase asynchronous motors/permanent magnet synchronous motors	
Communication method	CAN (2.0) communication	
Cooling method	Natural cooling	
Protection level	IP65	
Vibration standard	GB/T2423	
Insulation property	Input and output to case: DC1000V, leakage current <0.05mA, insulation resistance >20MΩ	
Weight	1.4kg	

## Outer Dimension



## EV-AM6002-H-Series Electric Vehicle Motor Controller

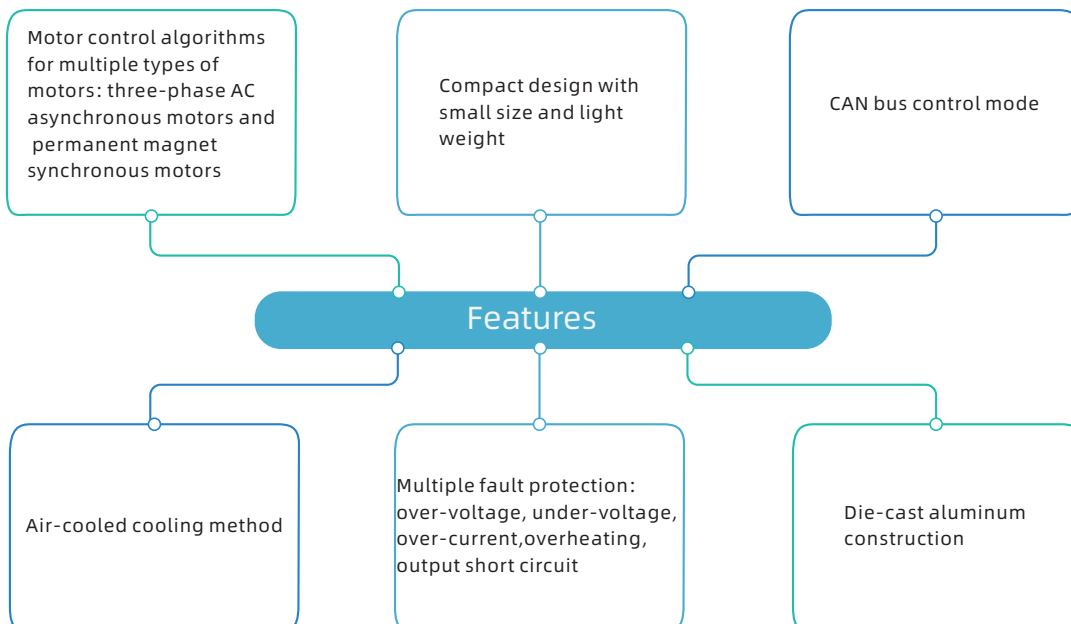
### Description

Safety features: full electrical isolation between high and low voltage, with high-voltage open cover interlock protection, high IP protection level IP67, high EMC level CLASS3 so it is highly reliable.

Application: auxiliary system for pure electric or hybrid commercial vehicles and logistics vehicles.



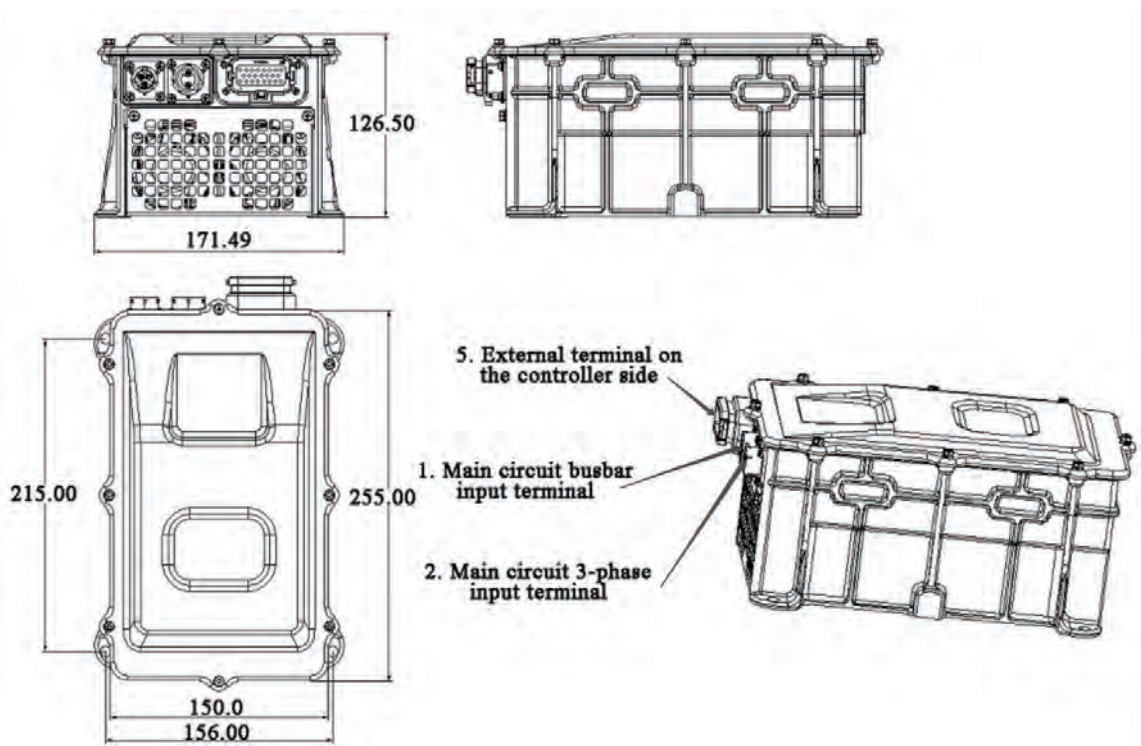
### Features



## Technical Specification

Performance and Specification	
High-and low-voltage power supply parameter	EV-AM6002-H
Low voltage range	6V~32V
High voltage range	240V~750V
Rated high voltage	600V
Min. input voltage under high voltage	250V
Power cable specification (recommended)	2.5mm <sup>2</sup>
Three-phase output parameter	EV-AM6002-H
Rated output current (rms)	13A
Max. output current (rms)	27.5@50s, 30@30s A
Rated output power	6kW
Max. output power	13kW
Efficiency	97%
Environmental, mechanical parameter	
Weight	3.5kg
Dimension(L*W*H)	255mm*156mm*127mm
Protection level	IP67
Cooling method	Forced air cooling
Working ambient temperature	40~85°C

## Outer Dimension

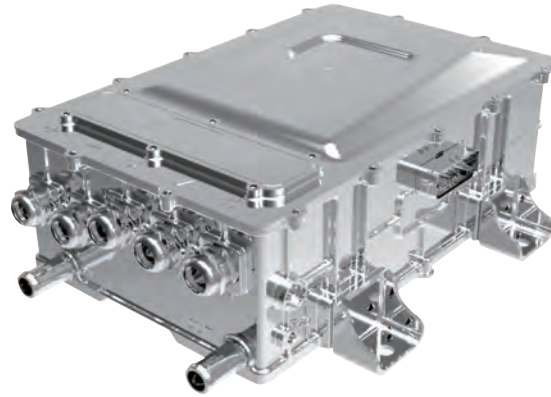


## EV-AM6030-I -Series Electric Vehicles Water-cooled AC Motor Controller

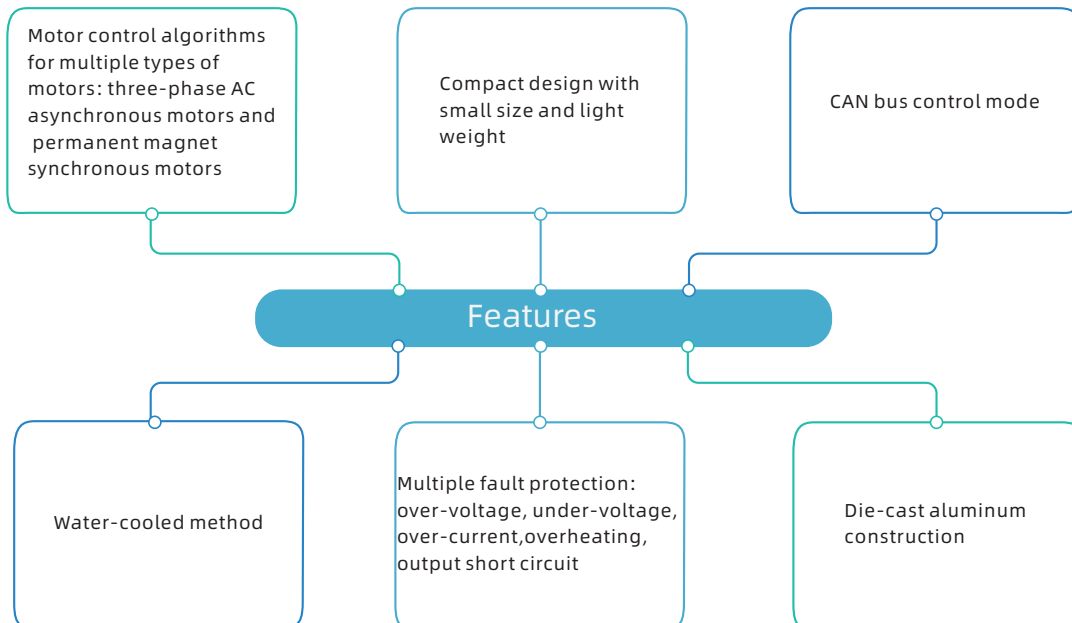
### Description

**Safety features:** full electrical isolation between high and low voltage, with high-voltage open cover interlock protection, high IP protection level IP67, high EMC level CLASS3 so it is highly reliable.

**Application:** auxiliary system for pure electric or hybrid commercial vehicles and logistics vehicles.



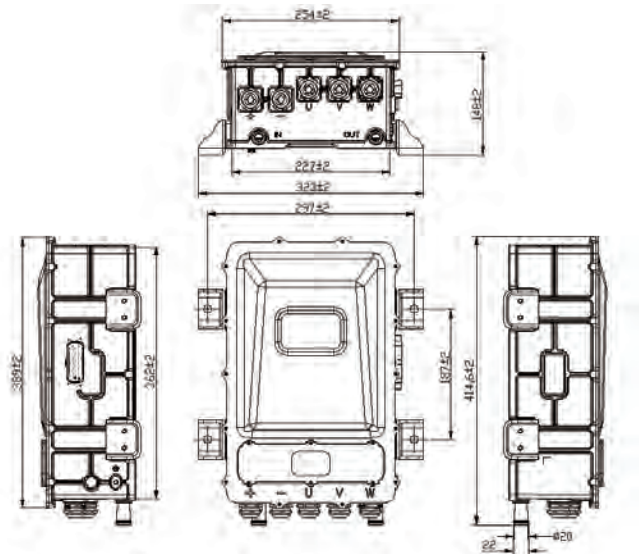
### Features



## Technical Specification

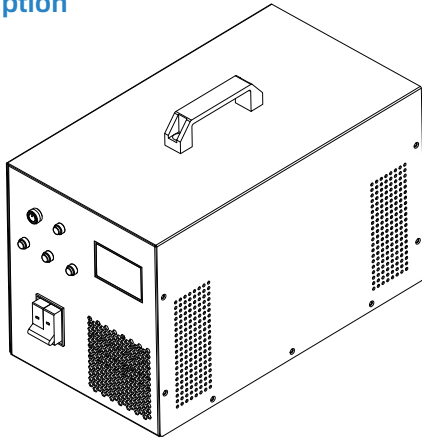
Performance and Specification		
High-and low-voltage power supply parameter	EV-AM6030-I	EV-AM6040-I
Low voltage range	6V~32V	
High voltage range	350V~750V	
Rated high voltage	540V	
Min. input voltage under high voltage	350V	
Power cable specification (recommended)	50mm <sup>2</sup>	
Three-phase output parameter	EV-AM6030-I	EV-AM6040-I
Rated output voltage	380VAC	
Rated output current (rms)	180A	240A
Max. output current (rms)	300@60s	400@60s
Rated output power	110KVA	150KVA
Max. output power	190KVA	260KVA
Efficiency	97%	
Speed control accuracy	±2%	
Torque response time	<10ms	
Torque control accuracy	±5%	
Environmental, mechanical parameter	EV-AM6030-I	EV-AM6040-I
Weight	15kg	
Dimension(L*W*H)	389mm*254mm*148mm	
Installation dimension	187mm*297mm	
Protection level	IP67	
Cooling method	Water-cooled	
Water nozzle outer dimension	20mm	
Water flow	12L/min	
Cooling water temperature range	-40~60°C	
Working ambient temperature	40~85°C	

## Outer Dimension



## EV-P100AS-Series Portable DC Charger

### Description



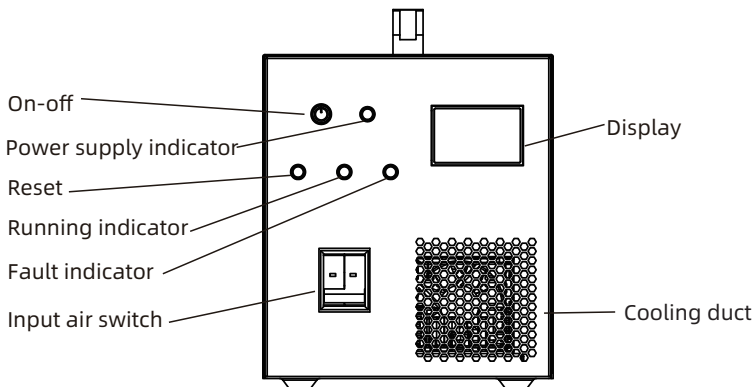
**Safety and reliability:**  
reliable safety protections and machine running with proofs against dampness, mold, mildewproof, dust, and water

**Appearance:** beautiful and elegant appearance design

**Intelligent management:**  
battery pack and charging monitoring, auto/manual charging switching, safety protection, charging control management and communication

**Extended compatibility:**  
perfect compatibilities for different systems

### Composition



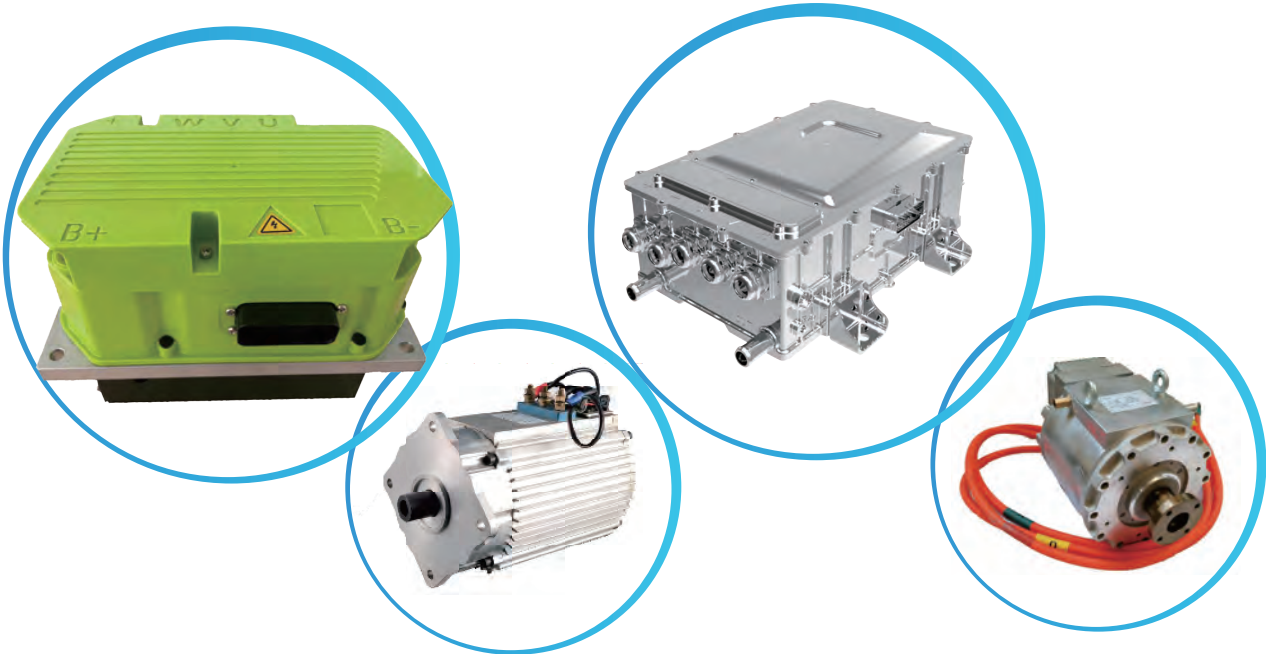
**Work environment**  
Temperature: -40°C~+65°C  
Humidity: 0-95%  
Altitude: 2-2000 meters

### Technical Specification

Performance and Specification	
Model	EV-P100AS
Input voltage (AC)	6V~32V
High voltage range	220V、380V
Output power	3.3kW~25kW
Output voltage range (DC)	24V/48V/60V/80V
Output current	65A/100A/120A/150A/200A
EV Charger cable length	2 meters
Efficiency	full load ≥93%
Supplementary power supply	12V/24V optional
Working temperature range	-40~65°C, 25°C (TYPE) ; derate intelligently when case temperature exceeds 70°C
Dimension	450mm*250mm*290mm
Function	Pre-charge, soft start-up, PTC heating(PTC specifications needed),0V start-up, charger head temperature detection, fault self-diagnosis and recovery, optional built-in charging curve, intelligent charging based on output adjustment according to battery characteristics and charging environments
Protection	Input over-voltage, input under-voltage, output over-voltage, output under-voltage, output over-current, output short circuit, overheat, etc.



## Motor Control System



Motor system	90V/108V permanent magnet synchronous motor control system		
Peak power (kW)	30	Rated speed (rpm)	3500
Rated power(kW)	15	Rated voltage (V)	96/108
Peak torque (Nm)	150	Voltage range (V)	66-125
Rated torque (Nm)	35	Motor cooling method	Natural cooling
Peak speed (rpm)	8000	Controller cooling method	Forced air cooling

Motor system	336V permanent magnet synchronous motor control system		
Peak power (kW)	60	Rated speed (rpm)	2865
Rated power(kW)	30	Rated voltage (V)	336
Peak torque (Nm)	225	Voltage range (V)	220-450
Rated torque (Nm)	100	Motor cooling method	Liquid / forced air cooling
Peak speed (rpm)	9000	Controller cooling method	Liquid / forced air cooling

## Manufacturing and Quality Control



## Smart manufacturing with whole-process automation

- > On intelligent manufacturing ,the smart factory yields an annual capacity of 600,000 sets;
- > Fully automatic SMT production line, automatic coating line, assembly line, testing line, packaging line, high temperature aging room and advanced production equipment are established;
- > Enterprise production is implemented with target management and is operated in strict accordance with the production process and management methods, which greatly improves the production efficiency.
- > Complete supply chain system meets the large volume of one-time delivery.

## Inheriting the spirit of craftsmanship, detail-oriented and striving for better

- > Insist on the quality policy and concept of quality first.
- > Procurement, design, manufacturing and other aspects all implemented in strict accordance with the requirements of the ISO9001 quality management system.
- > Talents create high quality, the production line core positions are occupied by 100% college degrees and above.
- > Each product has a unique product code, which can be used in the product traceability system to ensure quality can be controlled and traced.

# Service and Support

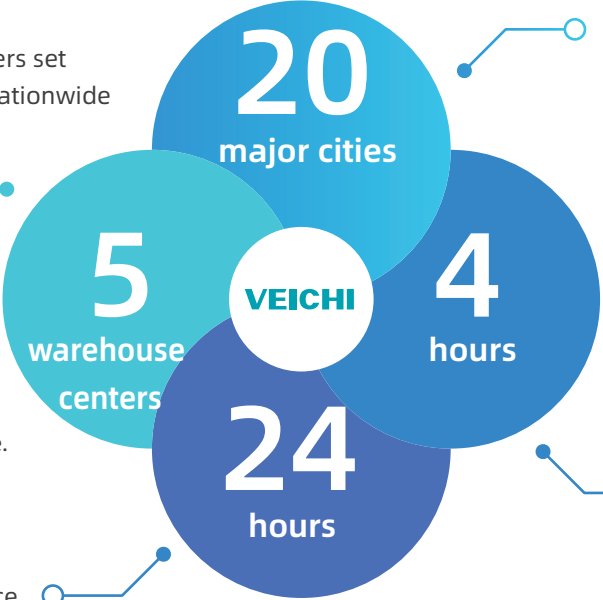
## Technology innovation-based and service first

Practice the "customer-centered" concept  
Create a "five-star" service system  
Grasp real-time service dynamics via network and telephone to solve customers' problem  
Serve with hearts, patience and focus so that customers will buy with confidence and use with ease.

5 major warehouse centers set for fast and worry-free nationwide logistics and distribution

20 major cities

permanent business & technical service teams set in 20 major cities in China



24-hour technical and after-sales service

quick response to customers' needs and a specific solution promised within 4 hours



- 01 Pre-sales**  
technology promotion, site survey, proposal design, energy saving assessment
- 02 During-sales**  
customization, design consultation, installation and commissioning, on-site training
- 03 After-sales**  
regular return visits, regular maintenance, timely repairs, application instruction

# VEICHI

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Official Website

Version: V2022 NOV

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