

# V&T Technologies

—— Stock code: 300484 ——



Booming with accumulated strength and world leading-edge technology,  
making superior products in the industry



## Motor Controller of Electric Vehicle

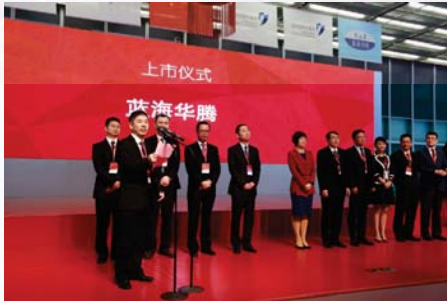
Chinese: VX-20160618-H-4.0 (BOM: 37110187) First printing  
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### Shenzhen V&T Technologies Co., Ltd.

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Shenzhen China

## Listing ceremony



Based on R&D and technology to promote evolution in the decade, Shenzhen V&T Technologies Co., Ltd. was officially listed on the Growth Enterprise Market (GEM) of Shenzhen Stock Exchange (SSE) on March 22, 2016 (stock name "V&T Technologies", stock code: "300484")

## Certificates of Management System Certification and Part of Patents



## About us



As a national-level high-tech enterprise with independent intellectual property rights, Shenzhen V&T Technologies Co., Ltd. is dedicated in the research and development, manufacturing, sales and service for such electric and electronic products as motor controller, converter, and servo drives in electric vehicles. It has been awarded the "2012 Electric Vehicle Technology Excellence" jointly issued by China Electro-technical Society (CES), the Professional Association of Electric Vehicles, the Society of Automotive Engineering of China, and Branch Association of Electric Vehicles Committee; in addition, it has been awarded the "Technology Innovation" by the Association of Converter Industry, and the "Most Competitive Independent Brand" by China Electro-technical Society. It has been successfully listed on the GEM in 2016 (stock code: 300484).

The Company boasts its core control technology for motor driving, and perfect industrial design and production platform, and a wealth of complete product series in the motor controllers of new energy electric vehicles: Standard single unit series such as synchronous/asynchronous master drive motor controller, ISG and BSG motor controller, and oil pump/air pump motor controller; customized 2-in-1, 3-in-1, and multi-in-1 integrated products with dozens of models in power coverage 3kW-280kW; providing more than 100 thousand of master motor controllers and auxiliary motor controllers in supporting a variety of pure electric or hybrid electric vehicles for domestic mainstream vehicle factories as of June, 2016, by working with many manufacturers for system assemblies, components, and full vehicles in close cooperation.

To meet the needs of its rapid development, V&T Technologies established a wholly-owned subsidiary in Xiamen city, Fujian province -- Xiamen V&T Technologies Electric Co., Ltd., and purchased a land for its construction to build its second R&D center and production base. Under construction at present, the center is expected to be completed and put into operation in 2016. Offices and customer service agencies have been set up all over China. V&T Technologies uphold the quality policy "Taking technology as foundation and quality as life for continuous innovation and improvement" to provide customers with quality products and satisfactory service.





Wholly-owned subsidiary of V&T Technologies in Xiamen -- Xiamen V&T Technologies Electric Co. Ltd.

### Key Clients



Safe, Reliable, Stable,  
Environment-Friendly, and Efficient



Abundant product series and customized production in power coverage 3KW-280KW;  
Widely applied for such models as pure electric vehicles, hybrid power vehicles, engineering vehicles, sightseeing vehicles and minicars;  
Nearly 100 thousand sets of products applied for the master drive motor controllers and auxiliary motor controllers;  
Providing products for many domestic mainstream vehicle factories as one of the mainstream suppliers for electric vehicle motor controllers;  
Working with many manufacturers for system assemblies, components, and full vehicles in the industrial supplying chain in close cooperation for complementary advantages and win-win situation.

# Integrated Master Drive Motor Controller

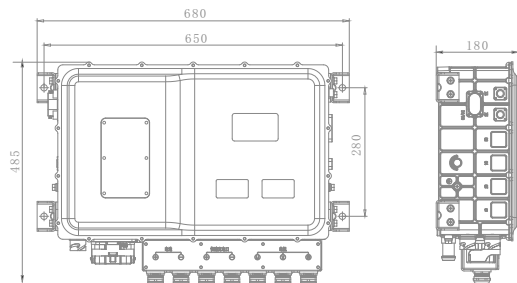
## V6-H-4D120G/V6-H-2D60G

5-in-1 integrated controller (master drive + gas pump + oil pump +DC/DC+ power distribution)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	Midibus, bus, logistic vehicles	
Product model	V6-H-4D120G	V6-H-2D60G
Rated input voltage	DC 540V	DC 336V
Rated power	120kW&5.5kW&5.5kW&3kW	60kW&3.7kW&3.7kW&1.5kW
Input voltage range	DC 350V~750V	DC 200V~450V
Rated output current	235A&13A&13A&110A	235A&13A&13A&110A
Maximum output current	352A&19.5A&19.5A&130A	352A&19.5A&19.5A&130A
Output frequency range	0~300Hz	
Control accuracy	1:1000 (with encoder mode)	
Protection level	IP67	
Cooling type	Water cooling	
Outline dimension	680*485*180 (mm)	



### Outline Dimension



# Integrated Master Drive Motor Controller

## V6-H-4D55G/V6-H-2D30G

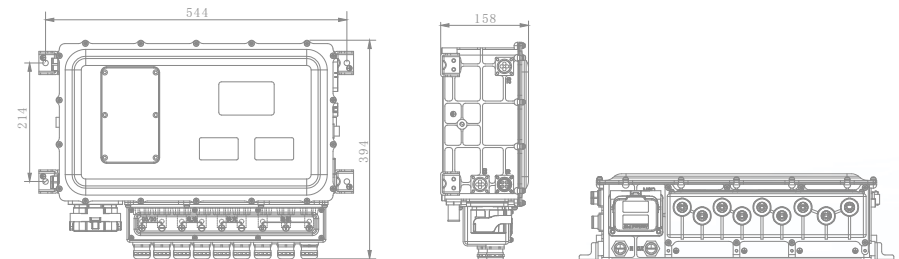
### Technical Parameters

3-in-1 drive motor controller (master drive +DC/DC+ power distribution)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	Logistic vehicle, midibus, passenger vehicle	
Product model	V6-H-4D55G	V6-H-2D30G
Rated input voltage	DC 540V	DC 336V
Rated power	55kW & 3kW	30kW & 1.5kW
Input voltage range	DC 350V~750V	DC 200V~450V
Rated output current	112A & 110A	112A & 110A
Maximum output current	168A & 130A	168A & 130A
Output frequency range	0~300Hz	
Control accuracy	1:1000 (with encoder mode)	
Protection level	IP67	
Cooling type	Water cooling	
Outline dimension	544*394*158 (mm)	



### Outline Dimension



# Hybrid Power Dual-Motor Controller

V6-H-4D110G & V6-H-4D110G/  
V6-H-2D55G & V6-H-2D55G

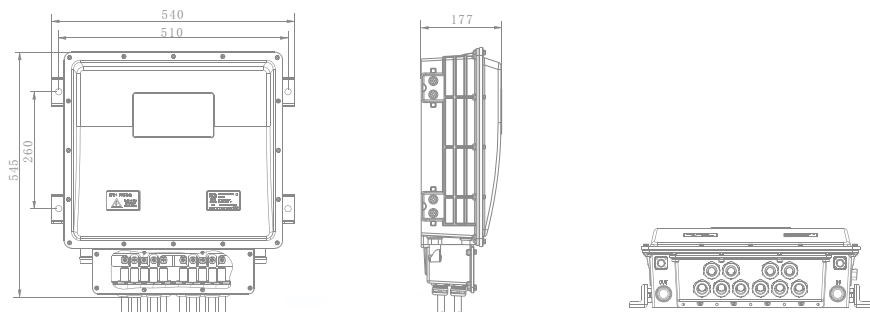
## Technical Parameters

2-in-1 hybrid master drive motor & ISG motor controller

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	9-11 m hybrid power bus	
Product model	V6-H-4D110G& V6-H-4D110G	V6-H-2D55G& V6-H-2D55G
Rated input voltage	DC 540V	DC 336V
Rated power	110kW & 110kW	55kW & 55kW
Input voltage range	DC 350V~750V	DC 200V~450V
Rated output current	210A & 210A	210A & 210A
Maximum output current	350A & 350A	350A & 350A
Output frequency range	0~300Hz	
Control accuracy	1:1000 (with encoder mode)	
Protection level	IP67	
Cooling type	Water cooling	
Outline dimension	545*540*177 (mm)	



## Outline Dimension



# Master Drive Motor Controller

V6-H-4D250G/V6-H-4D200G/V6-H-2D90G

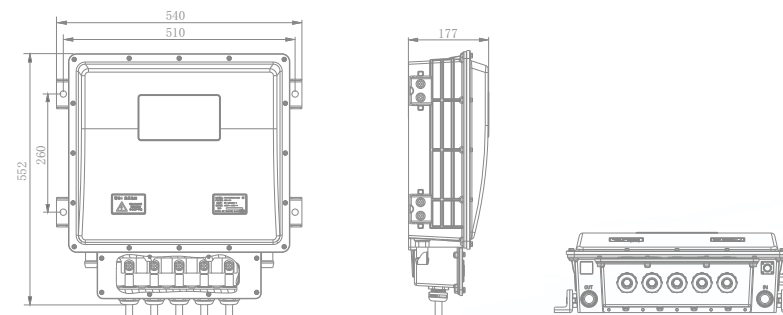
## Technical Parameters

9-18 meter master drive motor controller

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor		
Applicable vehicle model	9-18 m passenger vehicles, rail vehicles, logistic vehicles		
Product model	V6-H-4D250G	V6-H-4D200G	V6-H-2D90G
Rated input voltage	DC 540V	DC 540V	DC 336V
Rated power	250kW	200kW	90kW
Input voltage range	DC 350V~750V	DC 350V~750V	DC 200V~450V
Rated output current	470A	380A	350A
Maximum output current	705A	570A	525A
Output frequency range	0~300Hz		
Control accuracy	1:1000 (with encoder mode)		
Protection level	Ip67		
Cooling type	Water cooling		
Outline dimension	552*540*177 (mm)		



## Outline Dimension



# Master Drive Motor Controller

## V6-H-4D120G/V6-H-2D60G

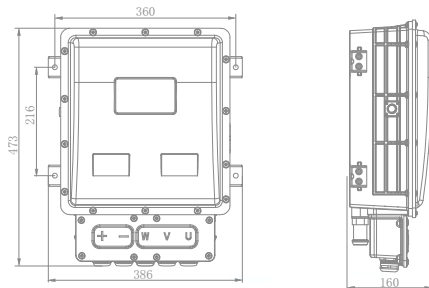
### Technical Parameters

Master drive motor controller for logistic vehicle/midibus

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	Logistic vehicle, midibus, passenger vehicle	
Product model	V6-H-4D120G	V6-H-2D60G
Rated input voltage	DC 540V	DC 336V
Rated power	120kW	60kW
Input voltage range	DC 350V~750V	DC 200V~450V
Rated output current	235A	235A
Maximum output current	352A	352A
Output frequency range	0~300Hz	
Control accuracy	1:1000 (with encoder mode)	
Protection level	IP67	
Cooling type	Water cooling	
Outline dimension	473*386*160 (mm)	



### Outline Dimension



# Master Drive Motor Controller

## V6-H-4D90G/V6-H-2D45G

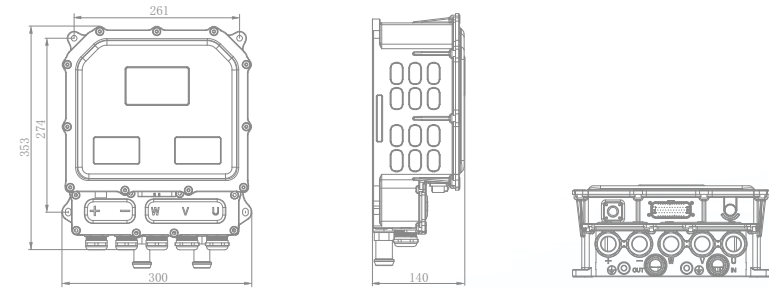
### Technical Parameters

Master drive motor controller for logistic vehicle/midibus

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	Logistic vehicle, midibus, passenger vehicle	
Product model	V6-H-4D90G	V6-H-2D45G
Rated input voltage	DC 540V	DC 336V
Rated power	90kW	45kW
Input voltage range	DC 350V~750V	DC 200V~450V
Rated output current	176A	176A
Maximum output current	264A	264A
Output frequency range	0~300Hz	
Control accuracy	1:1000 (with encoder mode)	
Protection level	IP67	
Cooling type	Water cooling	
Outline dimension	353*300*140 (mm)	



### Outline Dimension



# Integrated Auxiliary Motor Drive Controller

## V6-H-4D5.5G & V6-H-4D5.5G

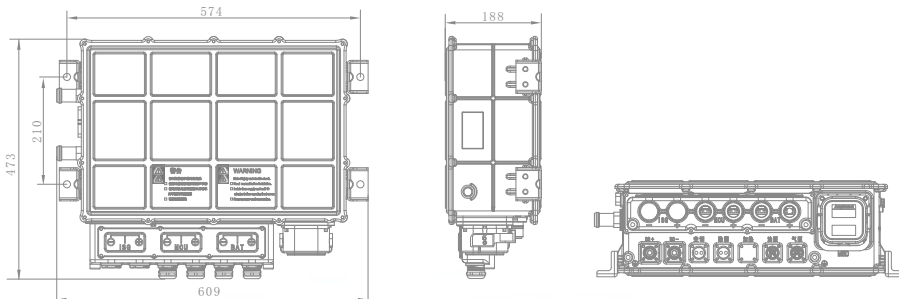
### Technical Parameters

4-in-1 auxiliary controller (Oil pump + gas pump + DC/DC + power distribution)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor
Applicable vehicle model	Midibus, bus, logistic vehicles
Product model	V6-H-4D5.5G & V6-H-4D5.5G
Rated input voltage	DC 540V
Rated power	5.5kW & 5.5kW & 3kW
Input voltage range	DC 350V~750V
Rated output current	13A & 13A, DC 27.5/110A
Maximum output current	19.5A & 19.5A, DC 130A
Output frequency range	0~300Hz
Control accuracy	1:100
Protection level	IP67
Cooling type	Water cooling
Outline dimension	609*473*188(mm)



### Outline Dimension



# Integrated Auxiliary Motor Drive Controller

## V6-H-4D5.5G & V6-H-4D5.5G

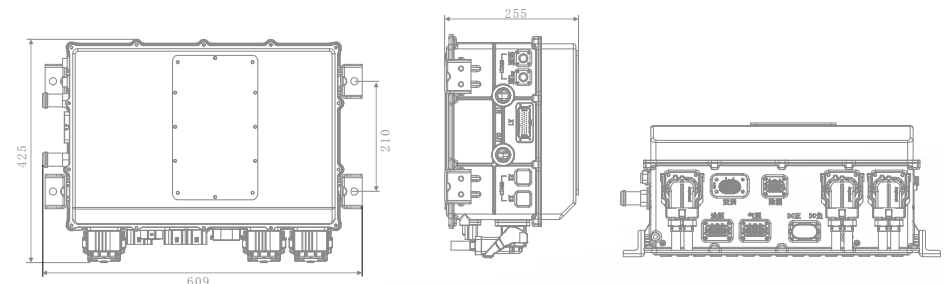
### Technical Parameters

4-in-1 auxiliary controller (Oil pump + gas pump + DC/DC + power distribution)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor
Applicable vehicle model	Midibus, bus, logistic vehicles
Product model	V6-H-4D5.5G & V6-H-4D5.5G
Rated input voltage	DC 540V
Rated power	5.5kW & 5.5kW & 3kW
Input voltage range	DC 350V~750V
Rated output current	13A & 13A, DC 27.5/110A
Maximum output current	19.5A & 19.5A, DC 130A
Output frequency range	0~300Hz
Control accuracy	1:100
Protection level	IP67
Cooling type	Water cooling
Outline dimension	609*425*255(mm)



### Outline Dimension



# Integrated Auxiliary Motor Drive Controller

## V6-H-4D5.5G & V6-H-4D5.5G

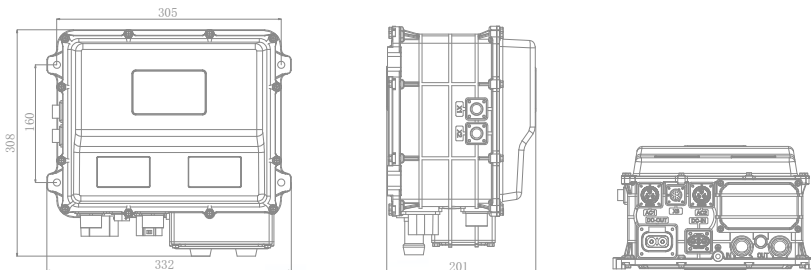
### Technical Parameters

3-in-1 auxiliary controller (Oil pump + gas pump + DC/DC)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor
Applicable vehicle model	Midibus, bus, logistic vehicles
Product model	V6-H-4D5.5G & V6-H-4D5.5G
Rated input voltage	DC 540V
Rated power	5.5kW & 5.5kW & 3kW
Input voltage range	DC 350V~750V
Rated output current	13A & 13A, DC 27.5/110A
Maximum output current	19.5A & 19.5A, DC 130A
Output frequency range	0~300Hz
Control accuracy	1:100
Protection level	IP67
Cooling type	Water cooling
Outline dimension	332*308*201(mm)



### Outline Dimension



# Integrated Auxiliary Motor Drive Controller

## V6-H-4D5.5G

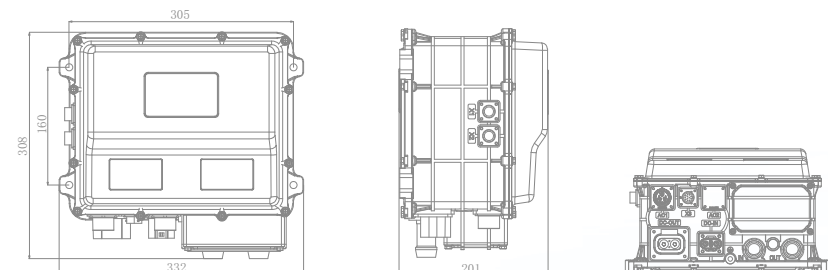
### Technical Parameters

2-in-1 auxiliary controller (Oil pump + DC/DC)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor
Applicable vehicle model	Midibus, bus, logistic vehicles
Product model	V6-H-4D5.5G
Rated input voltage	DC 540V
Rated power	5.5kW & 3kW
Input voltage range	DC 350V~750V
Rated output current	13A, DC 27.5/110A
Maximum output current	19.5A, DC 130A
Output frequency range	0~300Hz
Control accuracy	1:100
Protection level	IP67
Cooling type	Water cooling
Outline dimension	332*308*201(mm)



### Outline Dimension





# Integrated Auxiliary Motor Drive Controller

## V6-H-4D5.5G & V6-H-4D5.5G

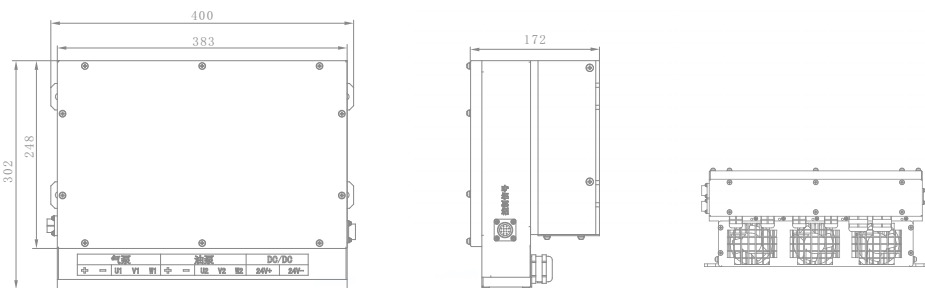
### Technical Parameters

3-in-1 auxiliary controller (Oil pump + gas pump + DC/DC)

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor
Applicable vehicle model	Midibus, bus, logistic vehicles
Product model	V6-H-4D5.5G & V6-H-4D5.5G
Rated input voltage	DC 540V
Rated power	5.5kW & 5.5kW & 3kW
Input voltage range	DC 350V~750V
Rated output current	13A & 13A, DC 27.5/110A
Maximum output current	19.5A & 19.5A, DC 130A
Output frequency range	0~300Hz
Control accuracy	1:100
Protection level	IP54
Cooling type	Air cooling
Outline dimension	400*302*172(mm)



### Outline Dimension



# Auxiliary Motor Drive Controller

## V6-H-4D5.5G/V6-H-2D3.7G

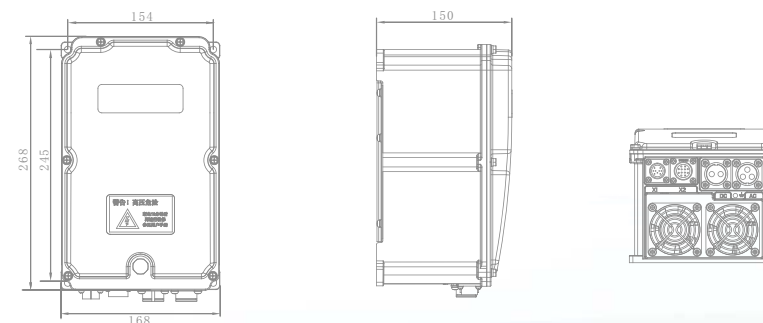
### Technical Parameters

Auxiliary motor controller

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	Midibus, bus, logistic vehicles	
Product model	V6-H-4D5.5G	V6-H-2D3.7G
Rated input voltage	DC 540V	DC 336V
Rated power	5.5kW	3.7kW
Input voltage range	DC 250V~750V	DC 200V~450V
Rated output current	13A	13A
Maximum output current	19.5A	19.5A
Output frequency range	0~300Hz	
Control accuracy	1:100	
Protection level	IP67	
Cooling type	Air cooling	
Outline dimension	268*168*150 (mm)	



### Outline Dimension



# Auxiliary Motor Drive Controller

## V6-H-4D5. 5G/V6-H-2D3. 7G

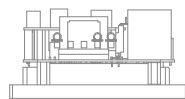
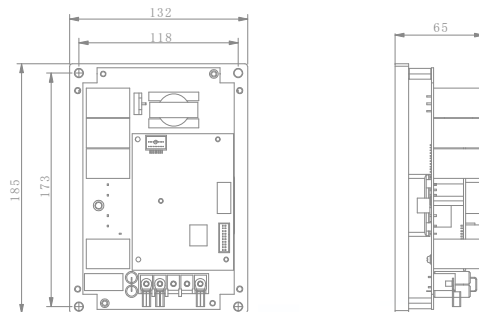
### Technical Parameters

#### Modular auxiliary motor controller

Applicable motor type	Permanent-magnet synchronous motor, 3-phase asynchronous motor	
Applicable vehicle model	Midibus, bus, logistic vehicles	
Product model	V6-H-4D5. 5G	V6-H-2D3. 7G
Rated input voltage	DC 540V	DC 336V
Rated power		3.7kW
Input voltage range	DC 350V~750V	DC 200V~450V
Rated output current	13A	13A
Maximum output current	19.5A	19.5A
Output frequency range	0~300Hz	
Control accuracy	1:100	
Protection level	IP00	
Cooling type	—	
Outline dimension	132*185*65 (mm)	



### Outline Dimension



## General Strength

### Leading-edge technical strength

The most experienced and leading-edge technology R&D team in China, the full independent intellectual property rights, and the vector control and torque control technology comparable with international brand of high-end converter. Abundant experience in the design of power unit. Over a decade of experience in millions of applications.

### Normative supporting system

The Company complies in strict accordance with the 5S production management to track the deviation between the assessment operation and the standard at any time in daily management, and form a continuous improvement process: the 6-sigma quality management method including the definition, measurement, analysis, improvement and control.

### Perfect production system

Keeping good cooperation and win-win relationship with supporting providers, the Company has a complete set of supporting system, that is, the raw material suppliers share their supply chain platform for raw material devices with international companies.

## Product Features

### Precise control

With the international leading-edge vector control and torque control technologies in synchronous motor and asynchronous motor, the controller can automatically identify the characteristic parameters of motors so that they operate in their perfect status. Its starting torque can reach or even exceed two times of rated torque.

### Easy and simple maintenance

The uploading and downloading of parameters can be implemented through the communication terminal. Meanwhile, the function for fault status memory is provided for the convenience of maintenance.

### High energy efficiency of system

The system efficiency is up to 98%, greatly helping the development of new energy electric vehicles.

### Dual control mode

The CAN bus control and terminal control are supported to meet the requirements of various users.

### Superior product performance

Its excellent torque control performance provides customers with comfortable driving environment.

### Perfect protection function

It provides a variety of protective functions for undervoltage, overvoltage, overcurrent, overheating, overload, peripheral protection, output short to earth, encoder disconnection, motor overload and overheating.

