

QSMOTOR

Reporter: Steven Shi



QSMOTOR

20180314 V1.3

1. Generally Introduction

1.1 Company information

Company: Taizhou Quanshun Motor Co., Ltd.

Main Products: Brushless DC PMSM electric hub motor
500w-14kw (speed 30km/h~150km/h), Mid Drive
Motor 1kw-3kw(50km/h~100km/h)

Sister Company: Taizhou Quanshun Vehicle
Accessories Co., Ltd.

Taizhou Quanshun Aluminum Co., Ltd

Employees: 150

Annual Sales: 25 million Dollars

Certification: CCC, Lvd, EMC, ISO9001, TS16949

Locations: Taizhou City, Zhejiang Province, PRC.

Our Clients: Mahindra GenZe, JAC, Terra Motors,
Lightning Motorcycles, E-Max etc.



1. Generally Introduction

1.2 Management System & Production Certification

Management System Certification
ISO9001, TS16949

Product Certification
CCC, EMC, LVD



1. Generally Introduction

1.3 Production Capacity

**Annual Sales: 25 million,
4000,00pcs motors
(include 30000 big power
motor)**

Production lines: 4

Employees: 150

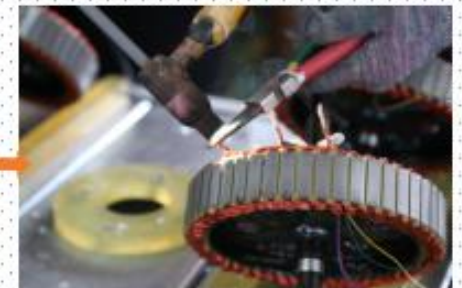
QC members: 12



Wire



Dipping Paint



Wiring



Assembly



Function test



Packaging

2 Products Catalogue

2.1 Main Products

Spoke Hub Motor
500w-8000w



E-Scooter Motor
10inch-17inch
500w-14kw

E-Single Shaft Motor
1500w-8000w



E-Car Hub Motor
1000w-8000w



Mid-Drive Motor Kits
1000w-3000w



2 Products Catalogue

2.1 Main Products



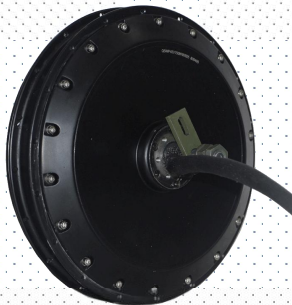
205 Bike Spoke Hub Motor
500w-1000w
drop-outs 110mm/135mm



205 Bike Spoke Hub Motor
500w-3000w
drop-outs 150mm



205 Scooter Spoke Hub Motor
500w-3000w
drop-outs 200mm



205 Bike Spoke Hub Motor
3000w-4000w
drop-outs 152mm



273 Scooter Spoke Hub Motor
3000w-8000w
drop-outs 200mm

ELECTRIC SPOKE HUB MOTOR



205 Hub Motor Wheel Set
Front: 19x1.6"
Rear: 17x1.6"
18x1.6"
18x1.85"
19x1.6"

2 Products Catalogue

2.1 Main Products

ELECTRIC SCOOTER HUB MOTOR



10inch 205 Hub Motor
500w-3000w



12inch 205 Hub Motor
1000w-3000w



12inch 260 Hub Motor
1500w-5000w



12inch 260 Hub Motor
1500w-5000w



13inch 260 Hub Motor
1500w-5000w



13inch 273 Hub Motor
2000w-8000w



14inch 260 Hub Motor
1500w-5000w



14inch 273 Hub Motor
2000w-8000w



16inch 273 Hub Motor
2000w-8000w

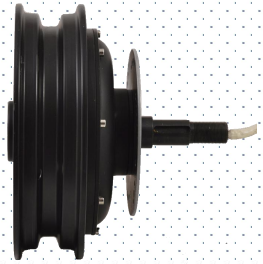


17inch 273 Hub Motor
2000w-14000w

2 Products Catalogue

2.1 Main Products

ELECTRIC SINGLE SHAFT HUB MOTOR



10inch 205 Hub Motor
500w-3000w



12inch 205 Hub Motor
1000w-3000w



12inch 260 Hub Motor
1500w-5000w



12inch 260 Hub Motor
1500w-5000w



13inch 273 Hub Motor
2000w-8000w

detached
wheel



13inch 273 Hub Motor
2000w-8000w



16-17inch 273 Hub Motor
2000w-8000w



20inch 205 Bike Hub Motor
500w-1500w



205 Spoke Hub Motor
500w-3000w

2 Products Catalogue

2.1 Main Products

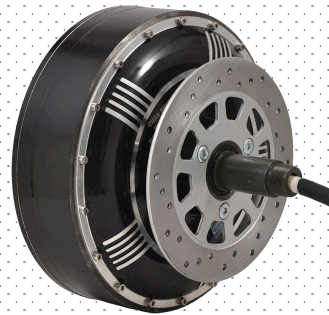
ELECTRIC CAR HUB MOTOR



205 E-car Hub Motor
1000w-3000w



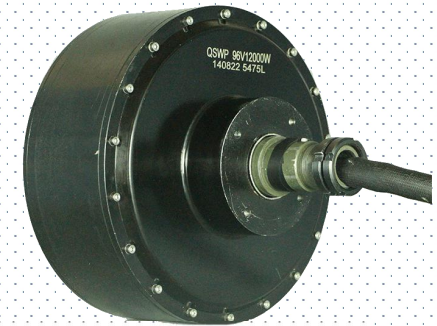
260 E-car Hub Motor
1500w-5000w



273 E-car Hub Motor
3000w-8000w



273 E-car Hub Motor
3000w-8000w

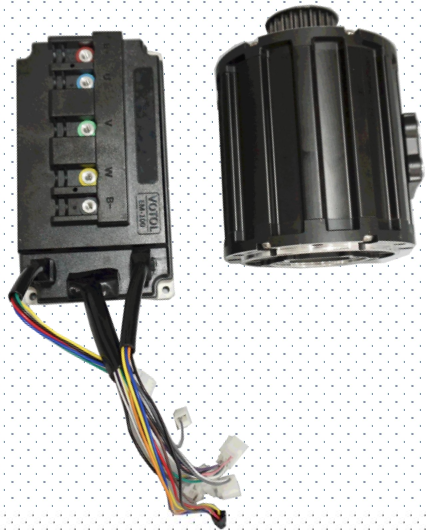


273 E-car Hub Motor
10000w-12000w

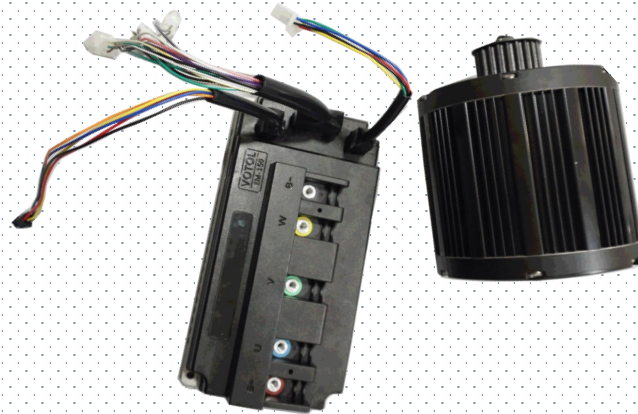
PCD and CB can be customized according to your requirements.

2 Products Catalogue

2.1 Main Products



2KW Mid-Drive Motor Kits
72v 70kmh



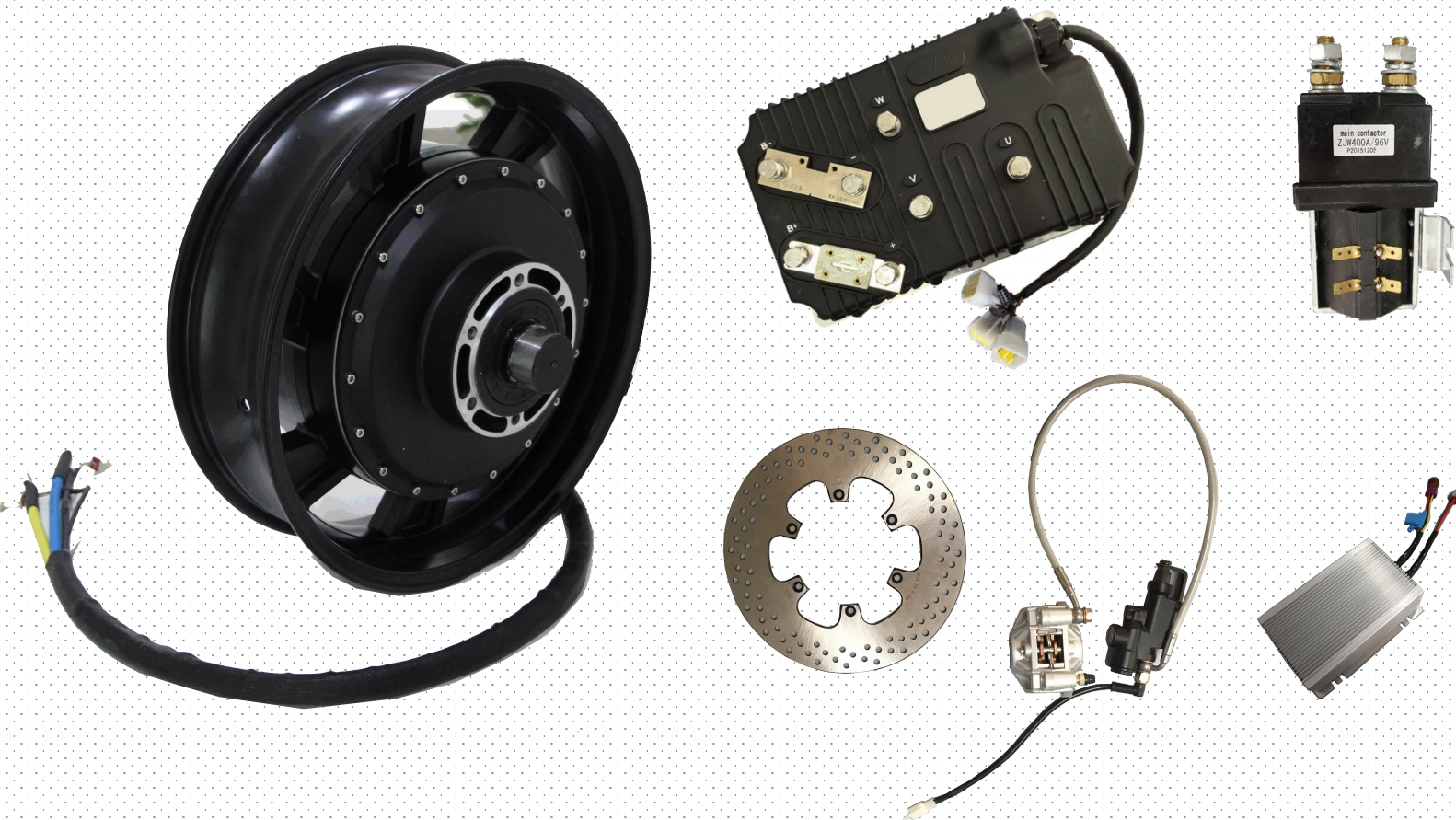
3KW Mid-Drive Motor Kits
72v 100kmh



2-3KW Mid-Drive Motor Kits
72v 70-100kmh

2 Products Catalogue

2.1 Main Products



MOTOR KITS Powered by SIA

**Motor
Controller
Main Contactor
DC to DC Converter
Disc Brake Assembly
Water Cooling System
Speedometer
Throttle**

... ..

2 Products Catalogue

2.1 Main Products



APPLICATION ELECTRIC TYPE



2 Products Catalogue

2.1 Main Products

More Products, pls. check our web site.

Official web: <http://www.cnqsmotor.com/en/>

Alibaba 1: <https://qsmotor.en.alibaba.com/>

Alibaba 2: <https://tzquanshun.en.alibaba.com/>

Aliexpress: <https://qsmotorfactory.aliexpress.com/store/1389549>

Facebook: <https://www.facebook.com/tzquanshunmotor/>

2 Products Catalogue

2.2 Motor Details

2.2.1 Configuration V1 V2 V3

There are three types, Normal/V1 type (low cost), Export/V2 type (Cost-effective) and Extra/V3 type (Best Performance).

1). Difference between V1 & V2

Holder: Iron(V1), Aluminum (V2)

Hall: One hall with Normal connector(V1), Two halls with Waterproof connector(V2)

Stator: V2 have a stronger configuration, more cooper, thicker section surface, energy saving in usage.

Magnetic Steel Grade: $V2 \geq V1$

Efficiency: 84~87%(V1) 86~88%(V2)

In short, normal type is standard configuration, while export type is high configuration. The price differs because of the cost of raw materials.

2). Difference between V2 & V3

The raw materials are alike, main difference in inner construction. For V3 (16 Pole Pairs): stronger configuration than V2, wider lamination, more cooper wire /thicker Cross-sectional area section, bear more current in usage. Higher torque at same current, lower temperature rise, more stable in high current. Magnetic Steel: V3 is wider and thicker. Efficiency: 86~88%(V2) 88~92%(V3); Thus, V3 have best performance.

PS. for the same V1 steel/iron stator motors, QS Motor performance better on lifetime & stability because of good raw material. So the cost is more than normal hub motor in the market.



Configurable Update to V4 in 2017

Silicon Steel Sheet Comparison:

Left is V3 type, right part is V4 type, select high quality of silicon steel raw materials, customized and enlarged groove make more copper wire into motor, produce more powerful magnetic force.

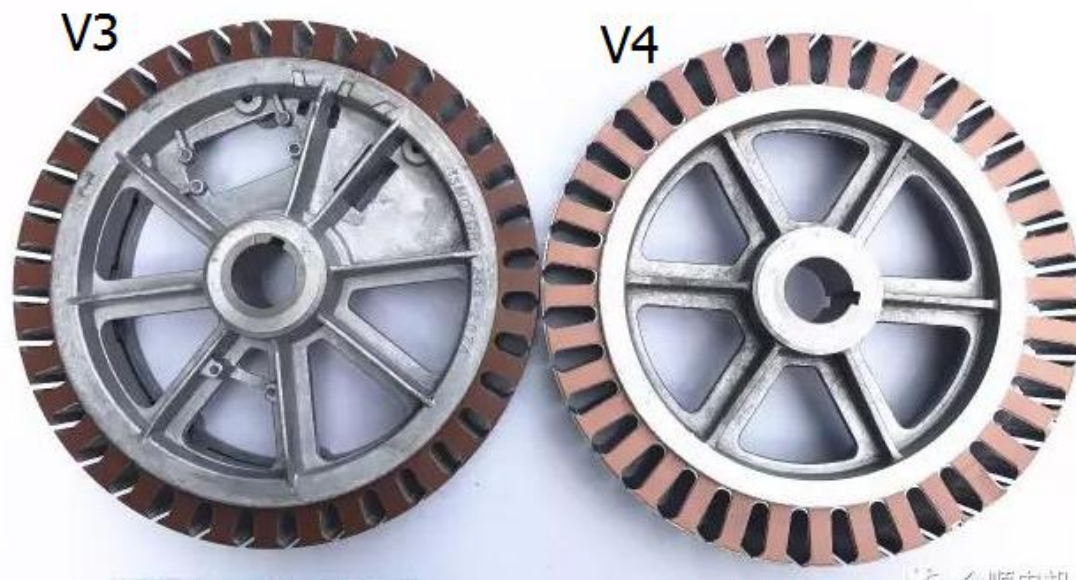
Wire comparison:

Left part is V4, Right is V3.

More active area and twice quality of the high temp wire than V3.

Advantage of the V4: powerful, temp lower, effective higher, more stable with high loading and over voltage.

Other parts Upgrade: More wire cutting area, enameled wire upgrade, hall model upgrade, magnetic steel performance upgrade.



2.2.2 Three Phase & Hall

For V2 and V3 hub motor, there will be two hall plugs, one for spare.

For V1 hub motor, only support one hall,

全顺双霍尔 QS Motor Two Hall				
位置 Position	霍尔 Hall 1	霍尔 Hall 2	定义 Defination	
1	红 Red	橙 Orange	VCC5V	
2	透明 Transparent	透明 Transparent	热敏电阻 Thermistor	
3	黑 Black	黑 Black	地 GND	
4	黄 Yellow	灰 Gray	霍尔信号 HA	
5	绿 Green	紫 Purple	霍尔信号 HB	
6	蓝 Blue	白 White	霍尔信号 HC	



2.2.3 Temp Sensor

For high power hub motor(more than 1000w), Temp Sensor Options: KTY84/130, KTY83/122, 10K@25C NTC(model MF58-103F3950).

When you add temp sensor of motor, pls. make sure controller with same model, otherwise it will not on work.

2.2.4 The Life Time of motor depends on usage.

For general usage, it's about 2-5 years, and it could be 5-7 years if it work in good condition. For testing and abusing usage, the lifetime will decrease accordingly. E.g., For 3kW V2/V3 motor, the max. power could be 6kW (2 times of rated power).

Situation 1:

We suggest max. 70-80A battery current for general usage (72V). It's most stable configuration & longest life time.

Some EV enthusiast adjust it to be 150A, the output power is far more than 6kW max. QS Motor could also work, which might not as stable as former situation. For a long time in high current/power, the motor might over heat & even burnt.

We strongly suggest to install Thermic Probe (e.g. KTY 83/122), so that controller will protect motor due to the temp inside of motor.

Situation 2:

The max. speed of 1pc 3kW motor is 80KPH in 72V(for e-scooter). Some EV enthusiast adjust it to be 96V, the max speed might be 100KPH, the continuous output power is far more than 3kW rated (maybe equal to 5-6kW).

QS Motor could also work, which might not as stable as it in 72V.

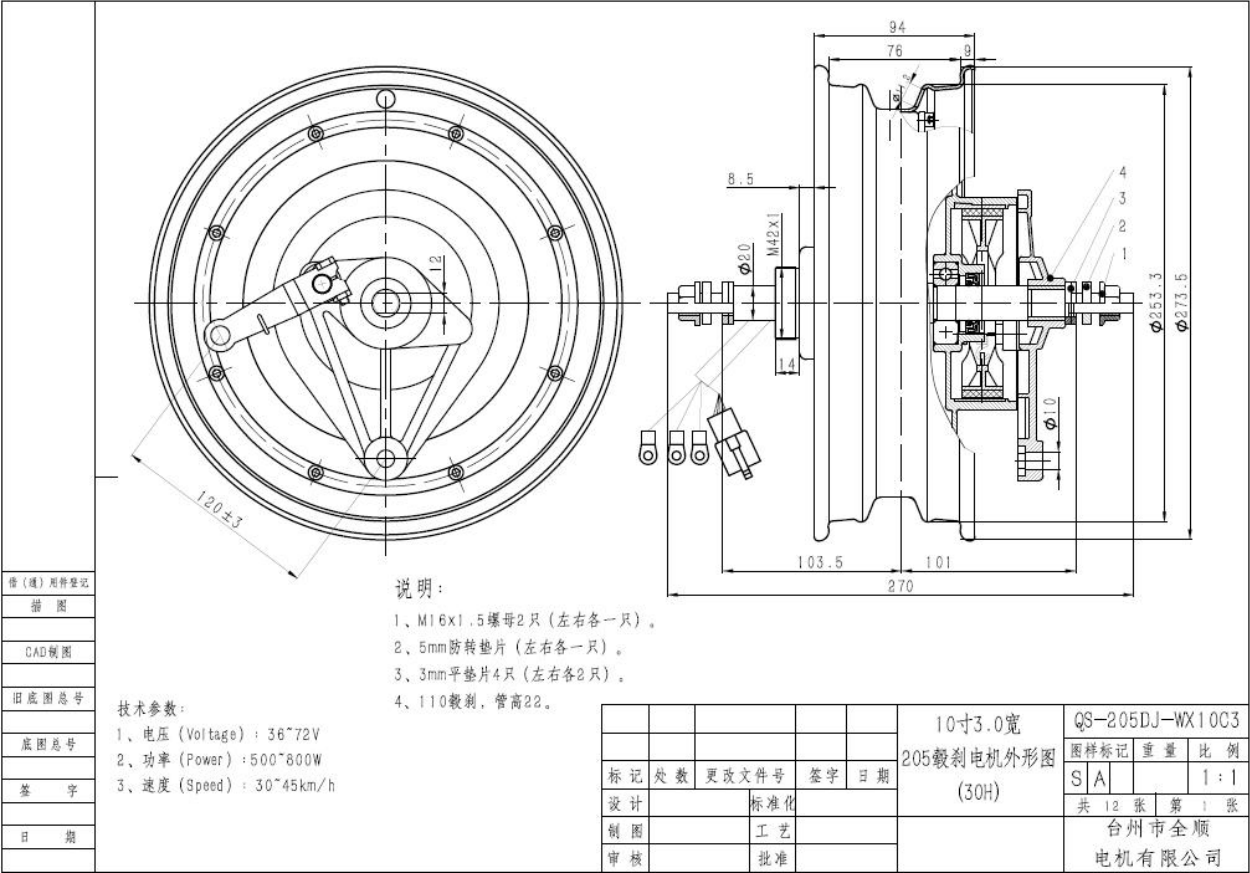
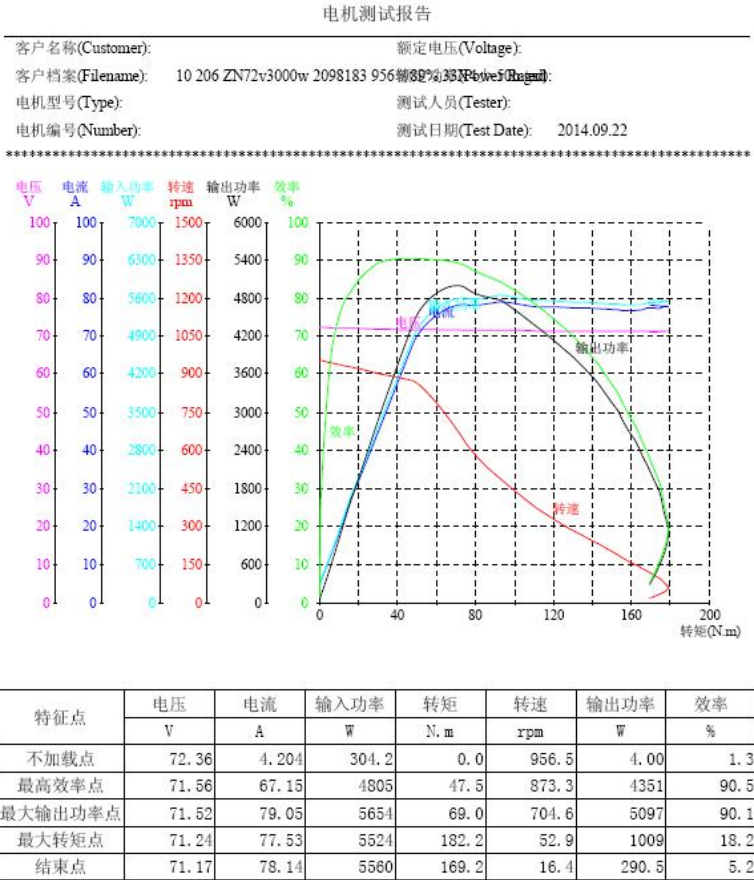
We call it over voltage/abusing usage, the life time might be shorter, and V3 will work better than V2.

For high power hub motor(more than 1000w), Temp Sensor Options: KTY84/130, KTY83/122, 10K@25C NTC(model MF58-103F3950).

When you add temp sensor of motor, pls. make sure controller with same model, otherwise it will not on work.

2.2.5 Drawing & Test Report

They're available for general motors, here is one sample below(10"*3.0 3kW V3 type Hub Motor).



2.3 Package & Shipping



Package(standard export packing)

- 1). Polyfoam box + carton box (for sample)
- 2). polyfoam box + carton box + wooden box (for special sample)
- 3). polyfoam box + carton box + pallet (for mass order)
- 4). Or according to customer's requirements.

Shipping

- 1). Samples can be shipped by Express(like DHL, FedEx, UPS, EMS, TNT etc.), sometimes by sea and by air also optional.
- 2). Mass order can be shipped by sea and by air.
- 3). Or you can pick the good in our factory.



3 Distributor

Firstly, thank you for your support on QS Motor.

If you tested QS Motor, and interest to be the dealer for better price & service. Meanwhile, able to do some maintenance of hub motor (e.g. change hall sensors).

Welcome to be QS Motor Dealer. For QS Motor, there are different grade of dealer as follow.

3.1 Potential Distributors

No MOQ limited, annual order above USD 10000.0 (seats limited).

For potential distributors, the price will be much cheaper which base on the Dealer Quotation Regulation (e.g. offer 20-29pcs quotation for < 20pcs, even for sample).

We don't have to sign the dealer contract, the sets limited (5 customers for each saler).

Moreover, we support wholesale, if your customer/friend need motors, we could send the motor from our warehouse & do transaction with you. In this way, you could help your friend to save money.

Validity: 1 Year since 1st order with new price.

Advantages:

1). Better price on Motor & Other Kits we could offer

2). If deliver some motors together by express, air cargo or sea shipment, the delivery cost per motor will be much less than 1pc by express. In this way, you will have better price than us for local market (consider the delivery cost).

3 Distributor

3.2 Official Dealer

The quotation will be much better base on different MOQ & annual quantity, refer to the Dealer Quotation Regulation for details.

1)MOQ 15-29pcs, annual 100pcs

2)MOQ 30-49pcs, annual 120pcs

3)MOQ 50pcs, annual above 120pcs

4)MOQ 50pcs, annual above 500pcs.

Validity: 1 Year

Advantages:

1).Official dealer have all right of the Potential Distributors.

2).Dealer could leave some motors in our warehouse, if their customer need samples, we could send from our warehouse.

Please don't hesitate to contact with us if any interest!

Hereby, We declare QS Motor's Official Dealer as below.

· Polywarm Deutschland GmbH, VECTOR

Web: <http://www.vectorebike.com/>

Add: Germany,80798 Munich,Zieblandstr 35, Polywarm GMBH

Phone: +49 157 56507678

E-mail: info@vectorebike.com

· Michael Moser

Web: https://www.facebook.com/picassoe?ref=br_rs, on facebook

Add: 3855 Blair Mill rd. Apt 226-A Horsham PA 19044, USA

Phone: +1-484-522-0695

E-mail: m2faux@gmail.com

4 Trade Details

4.1 Producing Time

For normal motors, it will takes 13-16 business days (6 business per week).

For customized motor & single shaft motor, it takes 15-20 business days.

For some accessories, the producing time normally no more than 10days, and sometimes can be send out within 2days if we have it in stock.

For special customized products, pls. expand to the time to we talked.

4.2 Payment

Wire Transfer/TT, Money Gram, Western Union, Paypal 100% in advance (for sample)

Generally, we prefer T/T, Money Gram, Western Union 100% in advance (for sample).



5 Warranty

Motor Warranty: 15months(since the date of producing)

Other parts Warranty: 12months(since the date of producing)

- 1). We only do after-sales service for the customers who buy products from us directly, not from other agencies.
- 2). Warranty period for motor and other parts: 15 months (since the production time)
- 3). If any after-sales issue, pls. contact us with detailed pictures or videos, we will reply you with reasonable solutions once we confirm the issue.

E.g: if there is quality issue for our products when you received and confirmed by both parties, we will send you free accessories or whole motor on your next order. If the products damaged during shipping, pls.contact us and Express within 24h, then we will send you new one for free.

- 4). Destructive test/abusing usage due to test purpose, we could not do after-sale issue for free.

Your feedback is very important for us, not only positive feedback but also negative; we try our best to satisfy you as much as possible. Meanwhile, if you are satisfied with our products, your five star feedback online would be highly appreciated.

Thank you !

Taizhou Quanshun Motor Co., LTD.

Add: Jin Bei Avenue, Lin's Village, Jinqing Town, Luqiao District,
Taizhou City, Zhejiang Province, P.R China

-Tel: +86 0576 88551619 -Skype: shidi2884 -QQ: 240165183

-Email: steven@tzquanshun.com

-Web: <http://www.cnqsmotor.com/en/>
<http://qsmotor.en.alibaba.com/>

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