

QSMOTOR & Kits Manuals

The motor mark with "WP" is Extra/V3 Type, if without "WP", then the motor is Export/V2 Type or Standard/V1 type.

Pole Pairs of V3 motor: 16pairs

Pole Pairs of V2/V1 205 motor: 23pairs

Pole Pairs of V2/V1 260 motor: 24pairs

Pole Pairs of V2/V1 273 motor: 28pairs

Phase Angle of motor: 120°

A. Motor wires: three phase lines and two hall

1. Three phase lines

Yellow wire: U/1/A

Green wire: V/2/B

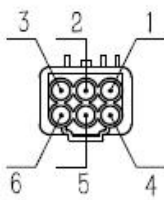
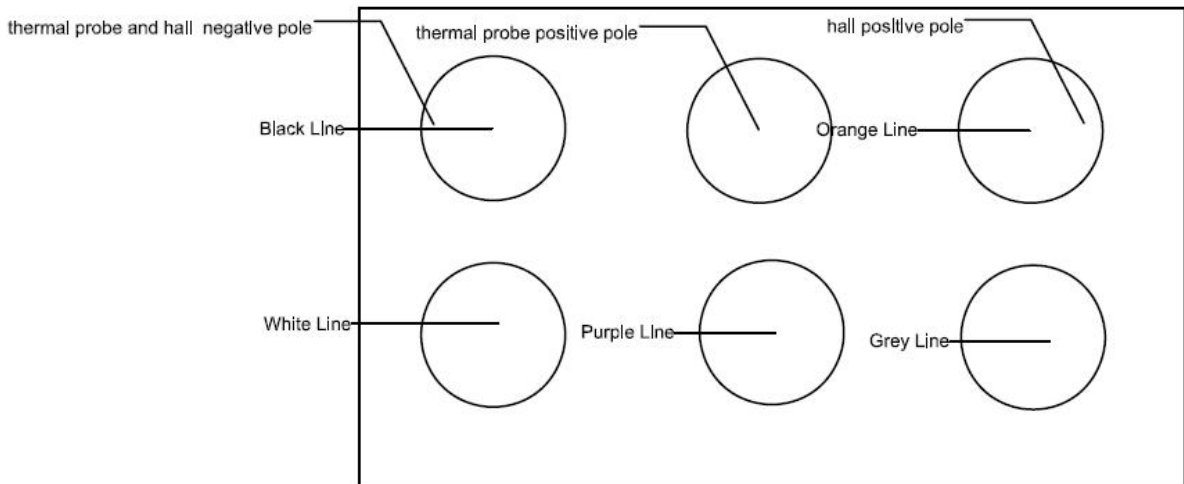
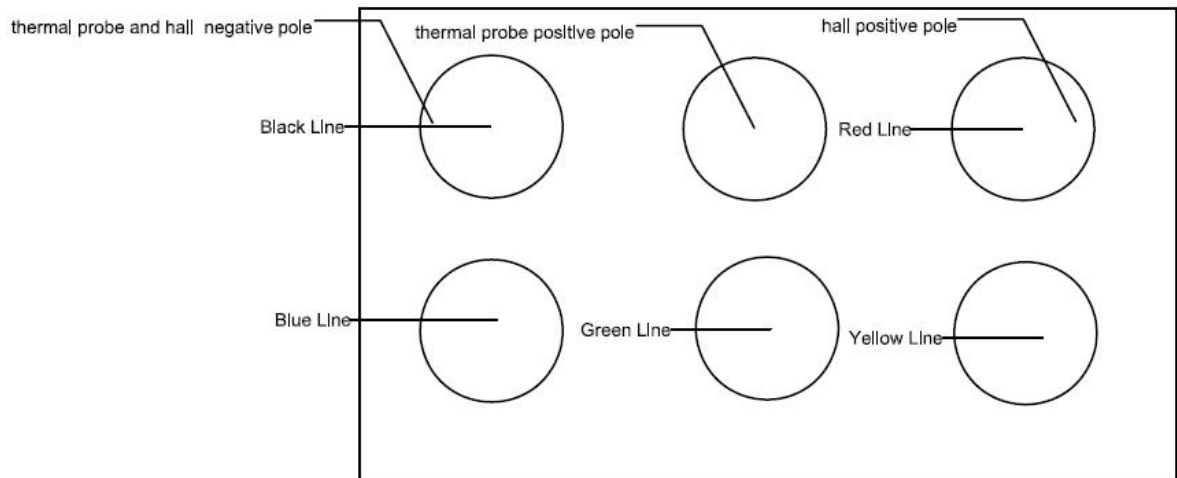
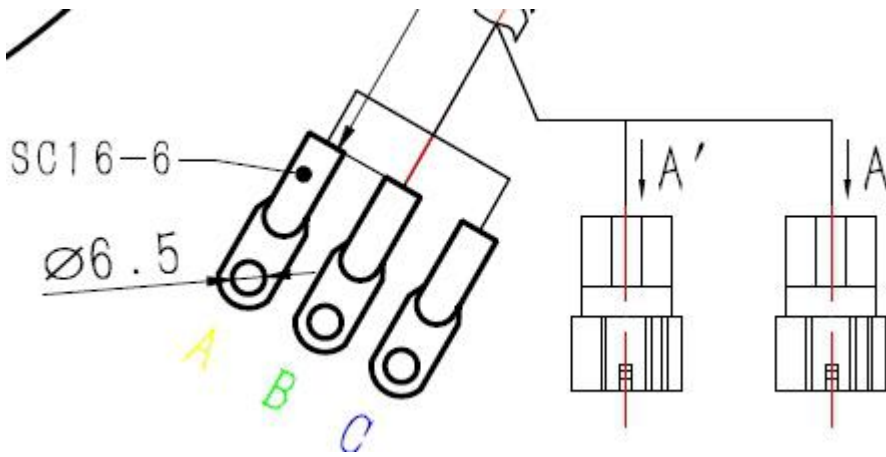
Blue wire: W/3/C



2. One hall set of V1 type Motor.

Two hall sets of QS motor (V2 & V3 type): you could choose one hall to use, the other one is for spare, in case of inconvenient of maintenance in abroad.

The diagram of two halls for your reference.

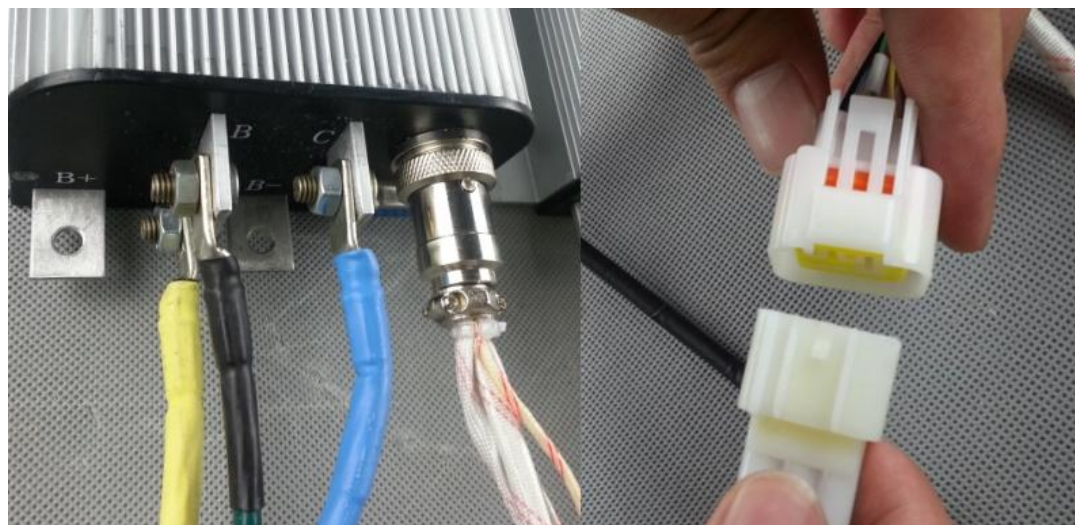


A、A' 位置定义			
位置	A颜色	A' 颜色	定义
1	红(red)	橙(orange)	VCC5V
2	透明transparent	透明transparent	KTY83-122
3	黑(black)	黑(black)	GND
4	黄(yellow)	灰(gray)	HA
5	绿(green)	紫(purple)	HB
6	蓝(blue)	白(white)	HC

- P.S.: Hall Sensor is sensitivity, it might be brake down by static electricity over 5V.
 The static electricity in our hand is far more than 5V.
 Please don't touch the metal part when modifying. If you have to, please wear wrist strap.
3. Catalog(updated on 9th Aug. 2015)
<https://www.dropbox.com/s/zgpedg7qf2fglv3/QSMOTOR%20Catalog%202015.08.09.pdf?dl=0>
 4. Test Report
<https://www.dropbox.com/sh/6gi6k4ht1x0ocql/AABtNcf02RmKBpbLhhqMQJO6a?dl=0>
 5. Drawing
<https://www.dropbox.com/sh/h6jf3k5vcwnv8m7/AADITjTKp3ZxridJXgZBfcgqa?dl=0>
 6. Installation Guide For Hub Motor On E-Car
<https://www.dropbox.com/s/wh6midw2hrmecd3/Installation%20Guide%20For%20Hub%20Motor%20On%20E-Car.pdf?dl=0>

B. Kelly KBLs sine wave controller (the files as same as KEB series except Software)

1. how to connect Kelly controller to our motor
 The connection way of motor and controller—— three phase and hall connection.



2. Kelly Controller user manual
<http://kellycontroller.com/mot/downloads/KellyKEBUserManual.pdf>
3. KBLs Controller Software(Sine Wave Controller)
 Android System(phone):
<https://www.dropbox.com/s/a7ivds8r19hpkzc/Software%28phone%29ACAduserEnglish.apk?dl=0>

P.S.: for phone using, you should buy one more USB cable to connect controller with your phone.



Computer software:

For XP:

<https://www.dropbox.com/s/0a8xs9mng1e4wpd/WinXP%20sine%20wave%20controller%20software.rar?dl=0>

For Windows 7:

<https://www.dropbox.com/s/8v5v3mrxybxln4a/win7%20sine%20wave%20controller%20software.rar?dl=0>

4. Connect Kelly Controller to a Computer

<http://kellycontroller.com/ConnectHelp.php>

5. How to adjust parameters of controller

<http://kellycontroller.com/KEBhelp.php>

6. Wiring Diagram of Controller

<http://kellycontroller.com/mot/downloads/KEB.zip>

Kelly KEB controller

1. Kelly Controller user manual

<http://kellycontroller.com/mot/downloads/KellyKEBUserManual.pdf>

2. Controller Software

<http://kellycontroller.com/mot/downloads/Kelly%20KBL%20and%20KEB%20User%20Program%20Release%20Setup%20v4.1.zip>

3. Connect Kelly Controller to a Computer

<http://kellycontroller.com/ConnectHelp.php>

4. How to adjust parameters of controller

<http://kellycontroller.com/KEBhelp.php>

5. Wiring Diagram of Controller

<http://kellycontroller.com/mot/downloads/KEB.zip>

Kelly KBL controller

1. User manual

<http://kellycontroller.com/mot/downloads/KellyKBLUserManual.pdf>

2. Controller Software

<http://kellycontroller.com/mot/downloads/Kelly%20KBL%20and%20KEB%20User%20Program%20Release%20Setup%20v4.1.zip>

3. Connect Kelly Controller to a Computer

<http://kellycontroller.com/ConnectHelp.php>

4. How to adjust parameters of controller

<http://kellycontroller.com/KBLHelp.php>

5. For more information

<http://kellycontroller.com/support.php>

6. **Notice:** If the controller comes with CAN protocol, For J1 cable, only need to use No. 10 and No.11CAN wires. J2 cable is normal using.

Kelly KBS controller

1. User manual

<http://kellycontroller.com/mot/downloads/KellyKBS-XUserManual.pdf>

2. Controller Software

<http://kellycontroller.com/mot/downloads/Kelly%20KBS%20User%20Configuration%20Program%20Setup%20v4.5.zip>

3. Connect Kelly Controller to a Computer

<http://kellycontroller.com/ConnectHelp.php>

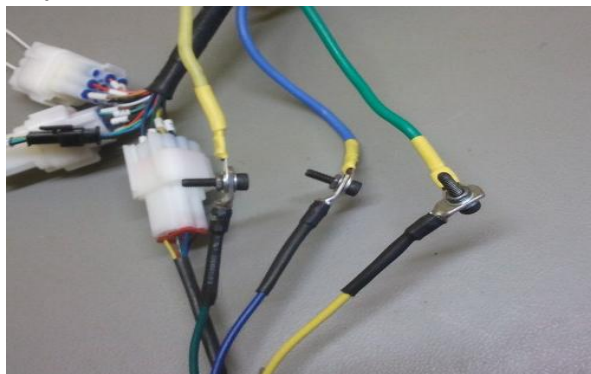
4. How to adjust parameters of controller

<http://kellycontroller.com/KBS-Xhelp.php>

5. For more information

<http://kellycontroller.com/support.php>

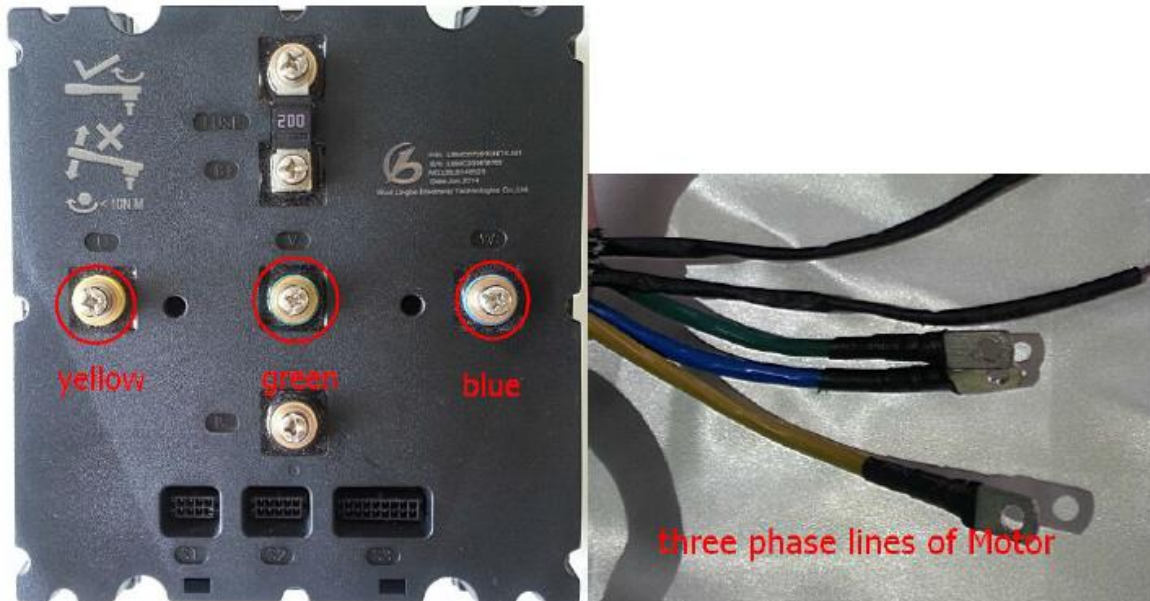
6. **Notice:** If the KBS48101XY controller match with QS motor(from ours), the connect way should like below picture.



C. LBMC controller

1. how to connect LB controller to our motor

For V2 Type motor, normal connection.



For V3 motor, the **green and blue** color(phase wires and hall) should be exchanged.

Motor Brand	Type of Motor	No. Of Pole-Pairs	Phase-shift	Phase Configuration			Hall Configuration		
				Yellow U	Green V	Blue W	yellow	green	blue
Quanshun Tile-shaped Motor	10、 12 inches、 13 inches Tile-shaped (with X)	16	-120						
	10、 12inches、 13inches Tile-shaped (without X)	20		blue	green		blue	green	

2. LB controller files.

<https://www.dropbox.com/sh/odch5hecaudwro7/AAD7sGrVCWifTxQMTNuWIA51a?dl=0>

D. Sabvoton Controller

Sabvoton controller files:

<https://www.dropbox.com/sh/yrhrr5ec59dfj2/AAD8Vu1IKfkCtz0i6lpGBCuDa?dl=0>

E. Electric Speedometer X8-E

Programmable, suitable for 24v-120v

Speedometer X8-E files:

<https://www.dropbox.com/sh/d8i6if2zsjn3cgt/AABgoxR8kelJ9xH5nuLGGh6Sa?dl=0>

F. Electric Foot throttle

Foot Throttle Manual:

<https://www.dropbox.com/s/1alivjuy5js4pfs/Foot%20Throttle%20Manual.pdf?dl=0>

For QS Motor after-sales issues

1. Hall Sensor

To detect the voltage of Hall Sensor by the voltage gear of multimeter ,which could judge the Hall sensor work or not.

Detailed schedule as below :

Set the multimeter to voltage test, and connect the red probe with the red wire of hall sensor. In the same way , connect the black probe with the blue wire of Hall sensor.

Then, turn the motor slowly by hands, the multimeter should change between 5V (actual 4.2V-4.8V) to 0V, it means the blue hall sensor is work/ok .

If the voltage keep 5V or 0V, the blue hall sensor is not work .

Use the same method as above to test the yellow wire with red wire, green wire with red wire.

P.S.: Hall Sensor is sensitivity, if might be brake down by static electricity over 5V.

The static electricity in our hand is far more than 5V.

Please don't touch the metal part when modifying. If you have to, please wear wrist strap.

2. Thermistor

To check Temp/thermal Sensor by multimeter, set the multimeter to ohm test.

Connect the red probe with the transparent wire of hall sensor. In the same way , connect the black probe with the black wire of Hall sensor.

Generally, it's 1k Ω for KTY83/122 at 25 $^{\circ}$ C (data below).

<https://www.dropbox.com/s/7mdygm9bbwxtv63/Thermistor%20KTY83-122%20%20Data.pdf?dl=0>