

MQCON SVMC Controller Manual



1. SVMC Series

Mini SVMC

Type	Voltage range	Max dc current	Max phase current	Applicative motor
SVMC7245	48-72V	45A	135A	1KW
SIZE: 164*120*62mm				

Mid SVMC

Type	Voltage range	Max dc current	Max phase current	Applicative motor
SVMC7260	48-72V	60A	175A	1.5KW
SVMC9650	48-96V	50A	150A	1.5KW
size: 215*147*62mm				

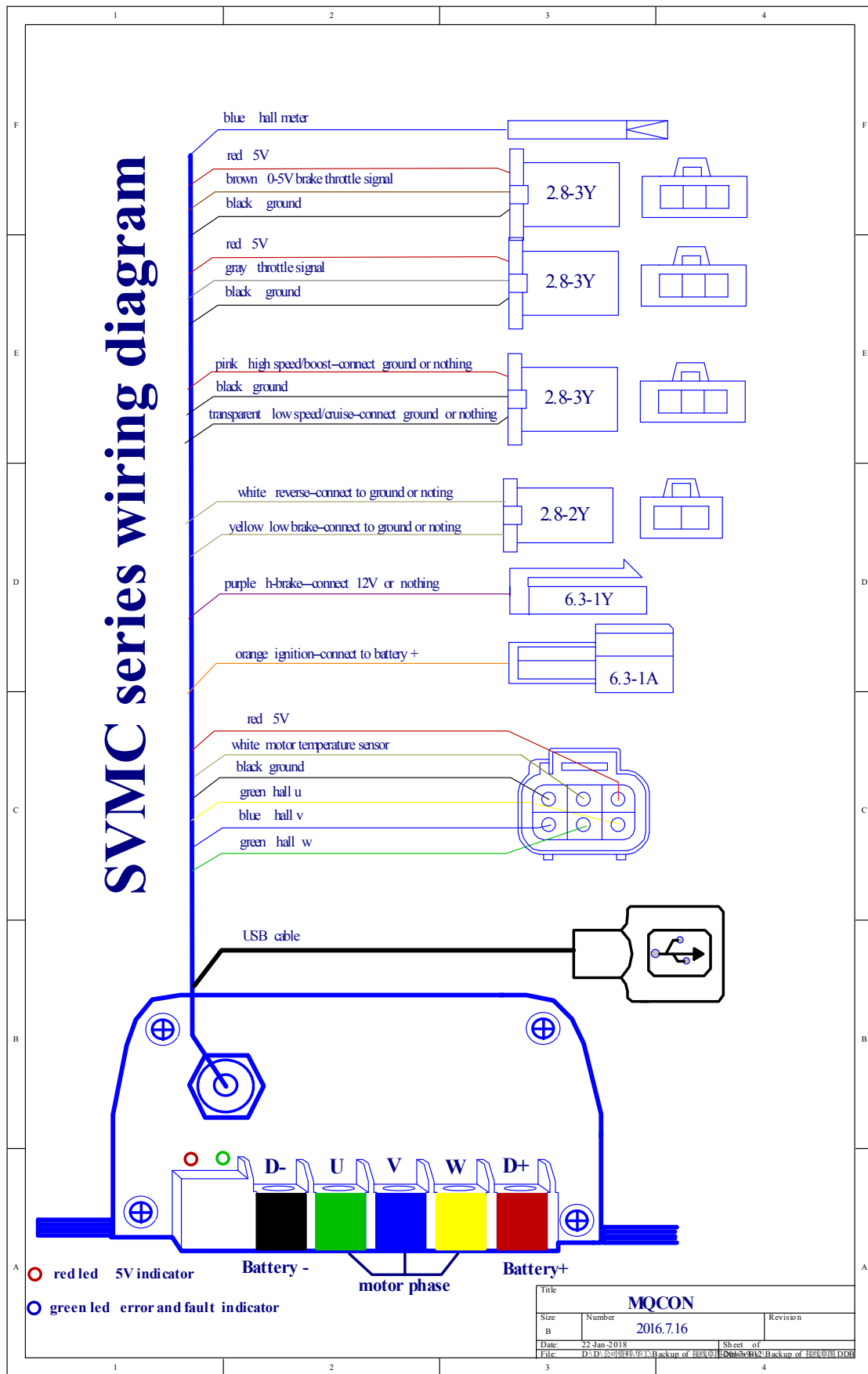
SVMC

Type	Voltage range	Max dc current	Max phase current	Applicative motor
SVMC7280	48-72V	80A	200A	2KW
SVMC72100	48-72V	100A	250A	3KW
SVMC72150	48-72V	150A	350A	3KW~4KW
SVMC96100	48-96V	100A	250A	2KW~3KW
size: 249*147*62mm				

Super SVMC

Type	Voltage range	Max dc current	Max phase current	Applicative motor
SVMC72200	48-72V	200A	450	5KW
SVMC96120	48-96V	120A	300	5KW
size: 283*147*62mm				

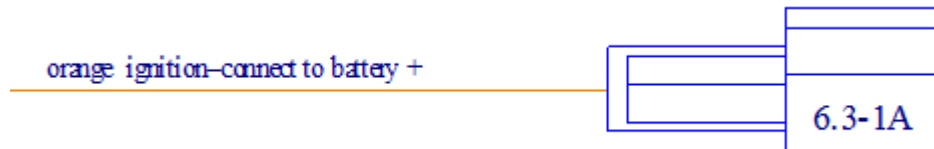
2. Svmc series wiring diagram :



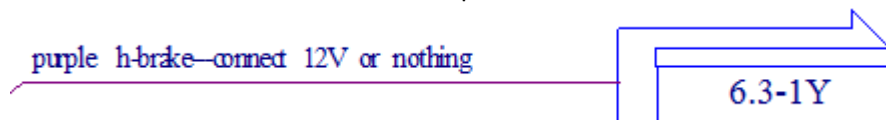
Remark: all black wire is the same point with battery negative and all ground is the same with battery negative.

2.1 Wiring description:

2.1.1 Orange ignition. : the wire should be connected to battery positive.

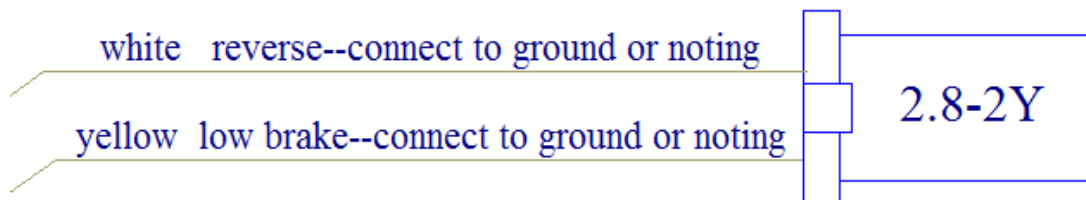


2.1.2 h-brake: if the purple wire connect to 12V, the controller enter brake status, when it disconnect with 12V, the controller quit the brake status

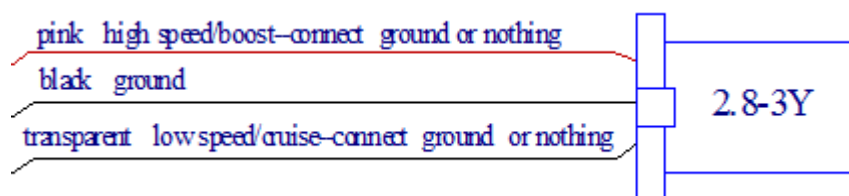


2.1.3 reverse: if the white wire connect to 0V(battery negative), the controller enter reverse status, twist the throttle,the motor will spin in back direction. when the white wire disconnect with 0V, the controller quit the reverse status

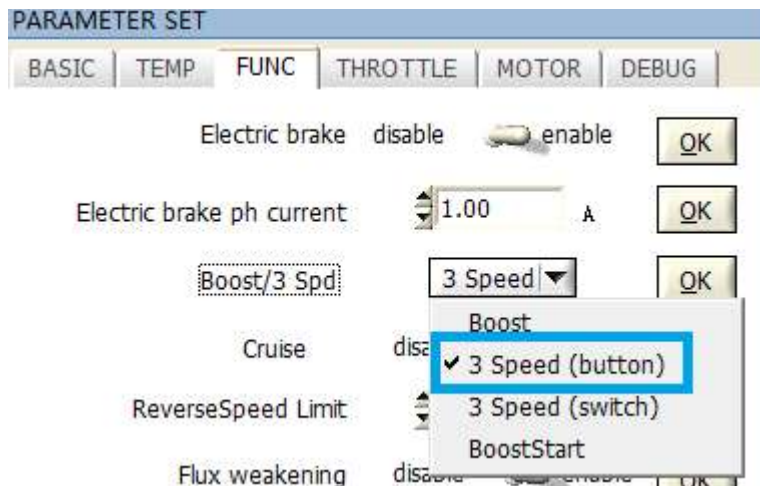
2.1.4 low brake: if the white wire connect to 0V(battery negative), the motor stop running



2.1.5 3 speed function



3- speed mode(Botton):



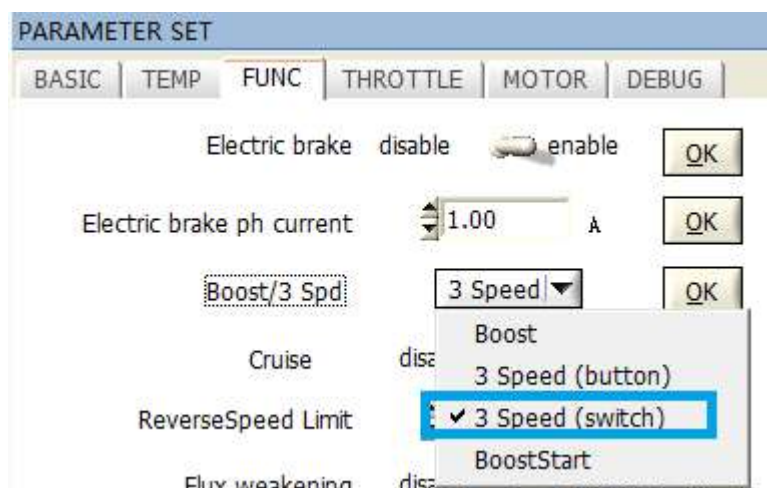
When select the 3 speed(button)in the software. use a button(which can be reset by itself) to connect the pink wire and ground wire.

push it and release ,the speed gear will change according as follows::

3-2-1-2-3-2-1-2-3-.....

When power on ,the controller is in 3 gear mode (high speed mode)

3 speed (switch):

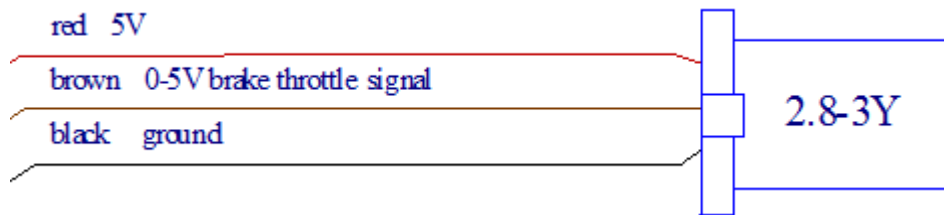


When select the 3 speed(switch)in the software. Use such switch to realize the 3 speed(switch) mode.

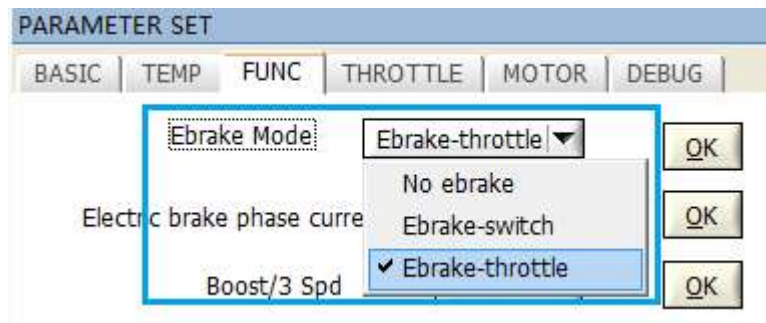


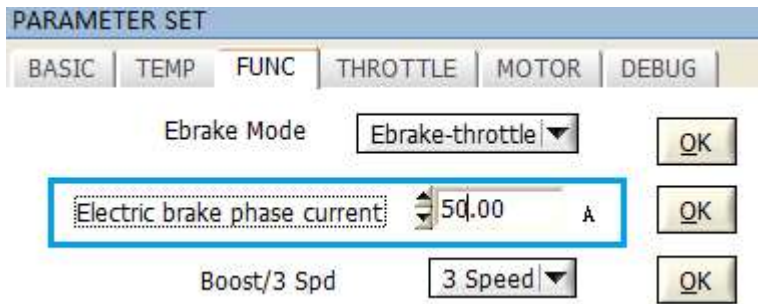
if 3 speed (switch) mode selected,
 Connect the pink and ground wire. Enter high speed mode
 Connect the transparent and ground wire. Enter low speed mode
 Disconnect pink ,transparent wire and ground ,enter middle speed mode

2.1.6 0-5v e-brake throttle:



Use a separate throttle to connect to the terminal above. Please select the "Ebrake-throttle" mode, When spin the throttle ,the controller will enter the e-brake mode , the brake strength will follow the the throttle positon. the max streng can be set from "Electric brake phase current" as following:

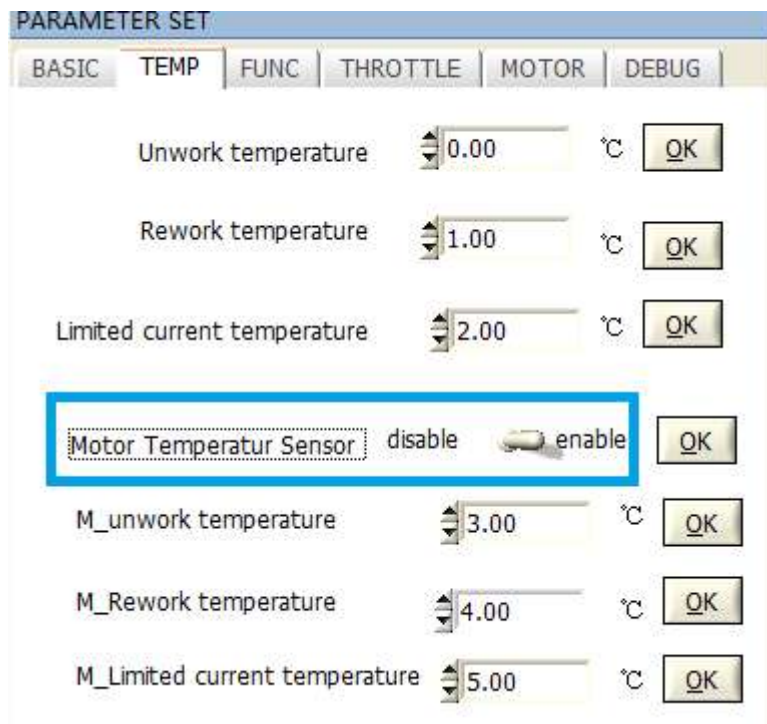




2.1.7 Motor temperature function.



The controller support kty83-121 temperature sensor from motor inside. The function can be enabled or disabled from the software.




3. MQCON controller can be connected with computer by usb cable or conneted with phone by bluetooth,the computer interface is just same with the phone app interface.

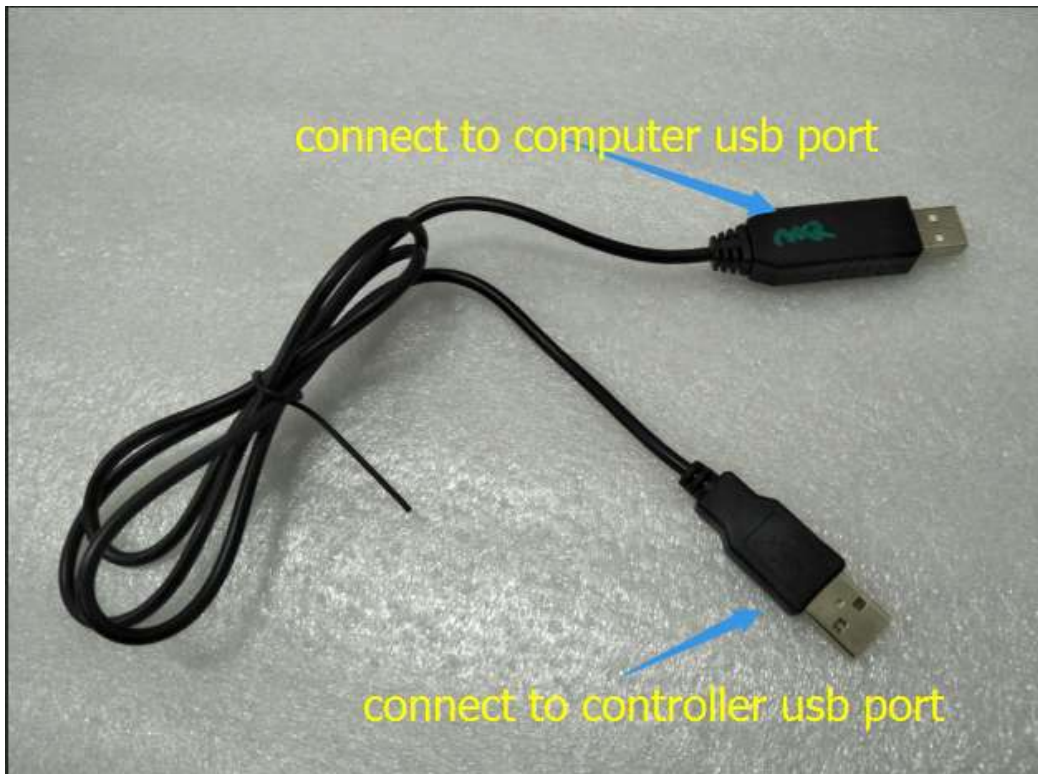
3.1.1 Connect with computer

Before connected with computer ,please install usbdrive and volume software provided by the controller manufacturer

 USB Driver

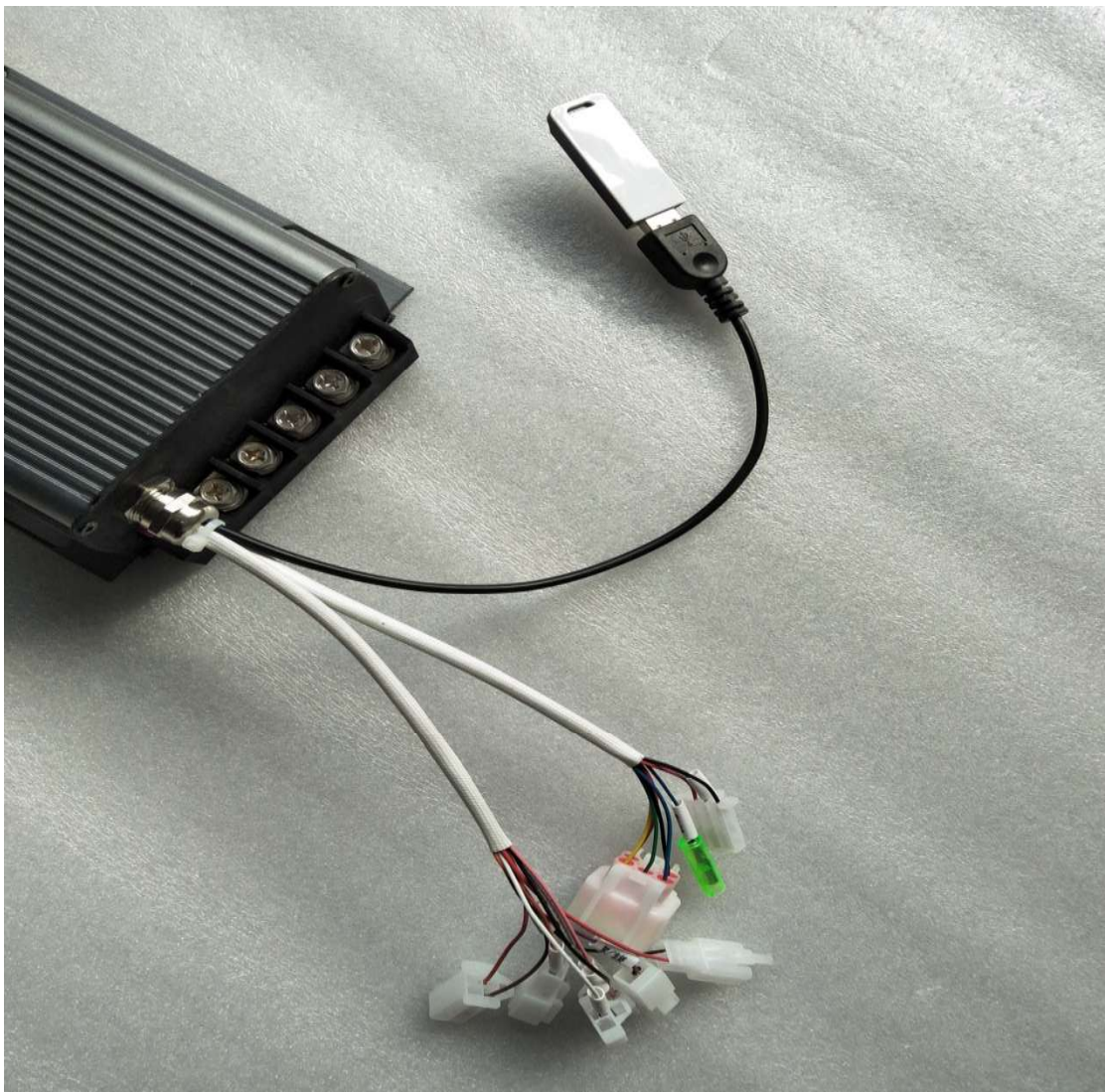
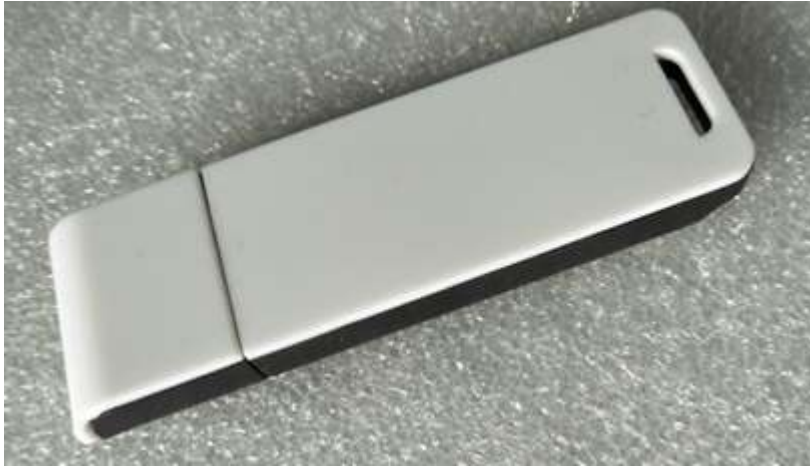
 Volume-en
类型: WinRAR ZIP 压缩文件

The usb cable should be connected in right way as the following picture showed:



For information about “how to use computer to set the parameters” ,pls reference the document” MQCON controller application user manual” and “MQCON(Sabvoton) FOC Controller Parameter Manual-EN”

The parameters can also be set by phone through bluetooth adapter as following.. after install the app on the phone. The controller can communicate with the phone app.

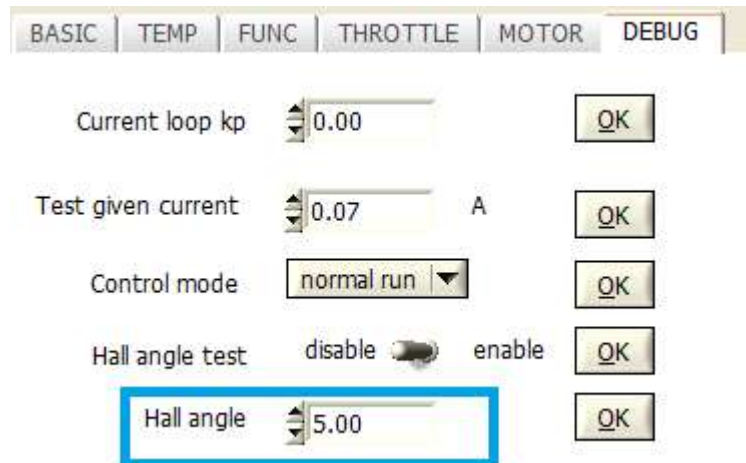


For information about “how to use phone bluetooth to set the parameters”, pls reference the document” MQCON controller application user manual” ,” MQCON bluetooth manual”and “MQCON(Sabvoton) FOC Controller Parameter Manual-EN”

4. Hall angle ---the most important parameter for MQCON controller

Different type motor should use different angle in controller. If use improper angle ,the motor may not run in best status.

When the user does not know the “hall angle ”in advance , the user should get the parameter by using automatic testing function in the software . if the user know the parameter in advance ,just enter the right angle. **For svmc series controller ,if used QS V1 or V2 type motor ,the hall angle is about 65. If use QS V3 type ,the angle is about 250**



More information about automatic test can be got from “MQCON Sine-wave controller HCl user manual”.