

keyde®

**P100 intelligent rear hub motor
Bluetooth version**

User manual



1.Product instruction

1.1 Introduction of P100 motor Bluetooth version

The P100 Bluetooth rear drive motor is a new type of intelligent brushless motor developed by our company after many years of research and development. The motor has the characteristics of small size and light weight, and has various built-in sensors and controllers.

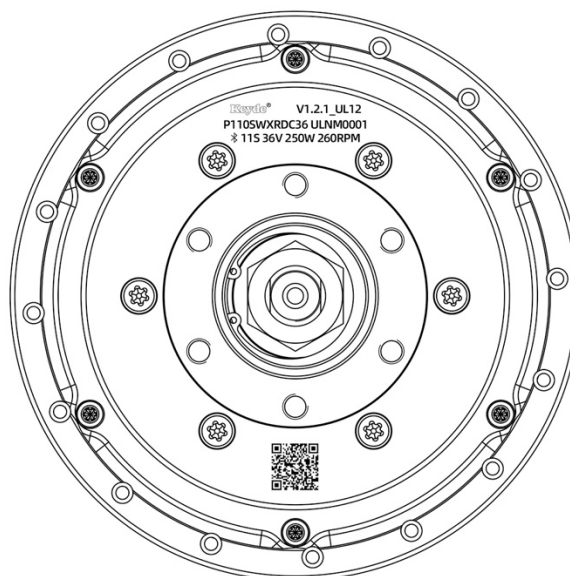
The P100 Bluetooth rear-drive motor can work only by connecting the motor to an external battery. It has dynamic pedal torque control and slope sensing function. The maximum torque can reach 50N m, and the large torque brings strong climbing ability, up to 90% The high power conversion efficiency makes electric bicycles have a longer mileage.

The product adopts wireless Bluetooth communication, which can be used with mobile phone APP, Bluetooth instrument, Bluetooth button, or can be used independently without external instrument.

1.2 Package list

Serial No.	Products details	Item No./Name	QTY
1	P100 rear motor	P100SWXRDC36 / P100SWXRC36	1
2	Accessories package	M12 anti-rotation washer	2
		M12*1.25 nut	2
		Nut Cover	2
		Cassette tool	1

1.3 Marking instructions



1.3.1 Position: Marked by laser on the motor end cover.

1.3.2 Number interpretation:

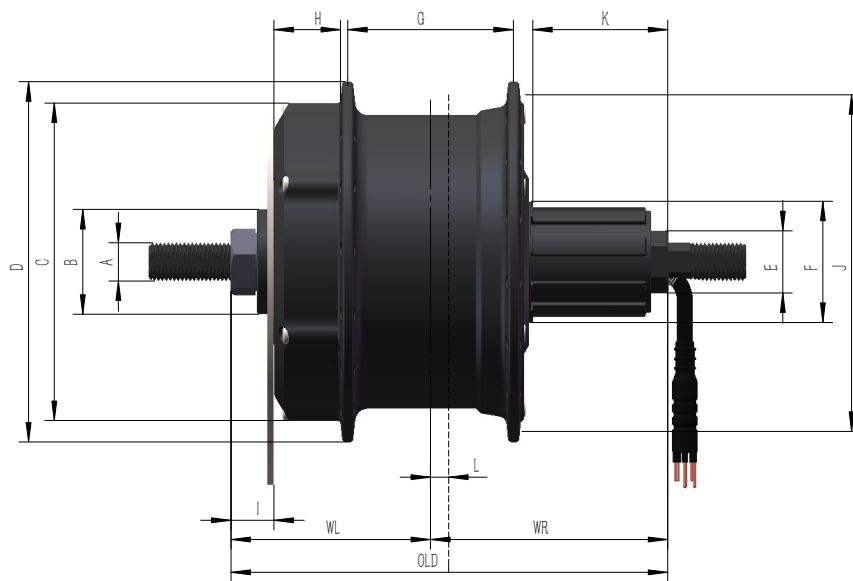
1st line: Brand | Motor version_Controller version

2nd line: Motor model | Serial number

3rd line: Display | Cassette body | Voltage | Power | RPM

QR code: Scan to query product information

1.4 Dimensions



A	2-M12X1. 25-6g
B	Ø 33mm
C	Ø 99. 6mm
D	Ø 113mm
E	Ø 19. 5mm
F	Ø 38mm
G	52mm
H	20. 87mm
I	13. 5mm
J	Ø 104mm
K	42. 5mm
L	5. 9mm
WL	62. 65mm
WR	74. 45mm
OLD	137. 1mm

2. Motor Specification

Item No.	P100SWXRDC36/P100SWXRC36
Diameter	103mm $\pm$ 1mm
Width	135 $\pm$ 2mm
Brake types	Disc brake / V brake
Outlet position	Under the shaft on the right side
Free-wheel types	Shimano HG
Gears	1-12s
Spoke no.	20H, 24H, 28H, 32H, 36H
Spoke types	13g / 14g
Controller	Internal
Sensor	Internal
Rated power	250W
Max. power	500W
Max. torque	30N·m
Rated voltage	36V
Rated input current	7.8A
Reduction ratio	1 : 13.5
Grade-ability	>20%
Efficiency	>89%
Revolution	160-260RPM
Applicable wheel diameter	14-29inch
Color	Black/Silver
Noise	<50dB
Operation temperature	-20-45°C
Storage temperature	-20-45°C
Waterproof & Dust-proof	IP65
Weight	1.8KG

3. Installation instructions

3.1 Please first check the packing list to confirm whether the motor specification is consistent.

3.2 Before installation, be sure to check that each screw and nut of the motor is intact. Don't remove the screws and nuts on the motor.

3.3 It's recommended to use 13g or 14g spokes to lace the rim, and the spokes tension range is 700-1300N. (If you buy a motor with spokes wheels, please ignore this step)

3.4 Using the attached cassette freewheel sleeve to install the flywheel of the motor correctly.



3.5 It must use **the original disc brake screws of the motor** to fix the disc brake, otherwise the motor may be damaged. (If it's a V brake motor, please ignore this step)



3.6 After installed the motor flywheel and disc brake, please fix the entire motor wheel to the bicycle rear fork. It's recommended to tighten the nuts at both end with a torque not exceeding $25\text{N} \cdot \text{m}$. (Note: The motor outlet must be installed outside of the frame slot opening)



3.7 According to the relevant instructions, install and fix the battery, display, cable, etc.

3.8 Connect the appropriate plug. Insert the motor plug tightly, otherwise the motor may not work or even burn out.



3.9 Installation and use APP

3.9.1 Go to the APP stor or scan the code to download and install the APP.



IOS



ANDROID

3.9.2 After opening the APP, search and connect the device. (Do not use system Bluetooth connection).

3.9.3 For the first use, please set first: wheel diameter, voltage, maximum

speed, maximum power, etc..

3.10 To turn on TOR mode, place the electric bike vertically on a level ground, enter the social page of the APP and click the H-Adjust button. After the horizontal calibration is completed, turn on the TOR mode, and you can ride with torque mode (abnormal horizontal angle may cause the motor to work unstable and affect riding).

3.11 After confirming that the electrical system can work normally, the installation is complete.

4. Notes:

4.1 Please install electrical components such as motors, cables, display, batteries, etc. strictly in accordance to the manual.

4.2 Please avoid high-pressure water gun spraying on the motor and avoid immersion in water. When cleaning with a low-pressure water gun, do not directly shoot the cassette body, bearings and other parts. (the tightness will be reduced after long-term use)

4.3 In order to perform optimally, the battery's power needs to reach a peak output power of 800W. If it cannot be achieved, the maximum power limit in the display must be lowered before use, otherwise the battery may enter over-current protection.

The maximum power setting algorithm of the display is as follows:

Maximum power(P) = Battery under voltage(V) × Battery maximum current(A)

For example: with a 36V battery, the under voltage is 29V, and the maximum current is 20A.

The maximum power should set as $29V \times 20A = 580W$

4.4 Through pedal induction, the motor starts to assist; the pedal stops and the motor stops working.

4.5 Power-assisted Level 0 is to turn off the motor power, and higher level can provide stronger power. When driving uphill and headwind, you can increase the level appropriately to provide better motor assistance.

4.6 After riding, please place your bike properly. You can turn off the electrical system manually, otherwise the electrical system will automatically sleep after stopping for 5 minutes.

4.7 Do not expose motors, cables, displays, batteries to the rain, snow, high temperature, and high humidity for a long time. If it is stored for a long time, turn off the power and avoid storing it near a heat source.

4.8 When setting the driving speed, please pay attention to the maximum driving speed of electric bicycles according to the local laws and regulations.

5. Common problems and Solutions

Common problems	Solutions
The APP display displays normally, but the motor does not work	1. Check if the battery is normally powered 2. Check if the interfaces of each parts are connected properly 3. Check if there is a problem with the instrument settings 4. If the problem cannot be solved after 1, 2, and 3, please contact the official after-sales service
APP display reports Error 01 High Voltage.	The battery voltage is too high. Check if the battery and motor are matched
APP display reports Error 02 Low Voltage	The battery voltage is too low, charge the battery
APP display reports Error 03 Over Current	Over current protection, restart the motor if the fault persists, please contact the official after-sales service
APP display reports Error 05 Hall Signal	Please contact the official after-sales service
APP display reports Error 06 MOS	Restart the motor, if the fault persists, please contact the official after-sales service
APP display reports Error 07 Three-Phase Power	Please contact the official after-sales service
APP display reports Error 0A High Temperature	The temperature of the motor is too high. Please let the motor stand still, it will automatically recover after cooling down.
APP display reports Communication Error	Check if the connection is normal, if the connection is normal, please contact the official after-sales service
APP display cannot be turned on	1. Check if the battery is supplying power normally 2. Check whether the interfaces of each parts are connected properly 3. If 1, 2 are normal, please contact the official after-sales service
Abnormal sound of the motor	1. Please check the abnormal sound that is not caused by other parts of the bikes 2. Contact the official after-sales service
External noise inspection	1. The noise of the disc brake rubbing against the disc or the disc brake caliper against the spokes 2. Noise from motor housing or wheel friction frame 3. Transmission or chain noise 4. Friction noise between flywheel and spokes 5. Use non-original disc brake screws to generate noise

	6. The motor is not installed at the bottom of the groove of the frame, so that the motor shaft is not in a straight line, and it will cause noise after locking. 7. The spokes are loose and squeezed to produce noise
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6. Warranty

The warranty period of this product is 24 months from the date of production (subject to the product serial number),

We promise: for P100 series motors with non-human fault during the warranty period, we will replace them free of charge (excluding the freight sent back from the user).

For the products that need to be repaired within the warranty period, the original warranty period shall be extended for 12 months.

Other cases shall be handled according to the agreement of both parties.

Warranty exclusions:

- ① The product is modified or disassembled for maintenance without authorization of our company;
- ② Damage is due to the following reasons: including but not limited to accident, abuse, negligence, abnormal installation, abnormal repair, abnormal maintenance, change, modification or other abnormal, excessive or abnormal use.
- ③ The liability of each party for the damage suffered during transportation shall be determined in accordance with incoterms.
- ④ Appearance damage or degradation caused by surface polishing, beautification, etc.
- ⑤ Damage caused by improper transportation or storage of the buyer.
- ⑥ Damage caused by unreasonable user configuration or unauthorized change of relevant accessory parameters.
- ⑦ Damage caused by force majeure.
- ⑧ Although the damaged parts were purchased by our company according to the buyer's requirements, they were not manufactured by our company.

※Contact us※

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