1 Central motor

★ Can be installed on standard bike frame easily.
★ High starting torque, Max torque ≥ 80Nm, good performance on hills.
★ Double clutch is used on drive unit, more safety.
★ Speed sensor and torque sensor can be applied, controller integrated.
★ High efficiency, low consumption, long travel mileage.

1.1 Scope of application and numbering rule

Countermark serial number on motor casing as following:
BBS01 36V 250W
15A 25km/h
13010001
1. “BBS01”: motor type(speed sensor);
   “BBS02”: motor type(speed sensor with coaster brake);
   “BBT”: motor type (torque sensor)
2. “36V”: rated voltage;
   “250W”: rated power.
5. “0001”: serial number.

1.2 Material and waterproof grade

Above parameters as the default parameters, can be customized according to customer requirements.

### 1.3 Main technical parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>DC36V</td>
</tr>
<tr>
<td>Limit current</td>
<td>15A</td>
</tr>
<tr>
<td>Limit speed</td>
<td>25KM/H</td>
</tr>
<tr>
<td>Motor weight</td>
<td>3.7KG</td>
</tr>
<tr>
<td>Chain wheel tooth</td>
<td>46T</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No-load value</th>
<th>Rated value</th>
<th>Max value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current (A)</td>
<td>≤1.0</td>
<td>≥83±5</td>
<td>≥80N.m</td>
</tr>
<tr>
<td>Speed (RPM)</td>
<td>250</td>
<td>78±5</td>
<td>≥80%</td>
</tr>
<tr>
<td>Output power (W)</td>
<td>280±5</td>
<td>80±5</td>
<td>≥80%</td>
</tr>
<tr>
<td>Efficiency (%)</td>
<td>≥80%</td>
<td>≥80%</td>
<td>≥80%</td>
</tr>
<tr>
<td>Torque (Nm)</td>
<td>≥30</td>
<td>≤9</td>
<td>≥80%</td>
</tr>
</tbody>
</table>

### 1.4 Installation diagram
1. Open the package and take out the drive unit and accessories; And check the specification whether it is correct.

2. Fix the chain wheel on drive unit with 5pcs screw M5*10, (see picture 1), then fix chain cover on chain wheel with 5pcs screw ST3.9.
3. Fix the drive unit axle tube on frame bottom bracket (see picture 2, picture 3)
4. The surface with teeth of fixing plate towards inside, then fix the plate on drive unit with 2pcs M6*10. (see picture 4, picture 5)

Ensure thread of axle tube extend bottom bracket more than 10mm.
5. Hold the drive unit near to bicycle fork, force less than 5KG, tight 1st nut M33 onto axle tube with force: 30-40N.m (see picture 6)

![Picture 6]

6. Fix 2\textsuperscript{nd} nut M33 onto axle tube, tightening force: 30-40N.m (see picture 7)

![Picture 7]

7. Fix the left crank on the bike with M8 inner hexagon screw. Tightening force: 35-40N.m (see picture 8)
8. Fix the right crank on the bike with M8 inner hexagon screw. Tightening force: 35-40 N.m (see picture 9)

9. Connect all cables for battery, display, speed detecting sensor and so on (see picture 10-12)
Water proof connector for battery

Water proof connector for display

Water proof connector for speed detecting sensor
3 Speed detecting sensor

By measuring the wheel RPM, the signal is transferred to the controller, the speed and mileage will be showed on the display.

3.1 Dimension

3.2 Installation

1. Speed sensor component
2. Fix the speed sensor on appropriate position (bottom fork is suggested) of frame by ribbon.

3. Fix the magnet on spoke of rear wheel

Note: magnet's surface must be parallelized with sensor's surface

4. Adjust the distance between speed sensor and magnet within 5mm
4 Connection diagram

- a) Brake sensor
- b) Brake sensor
- c) Display
- d) Throttle
- e) EB-BUS cable
- f) Battery
- g) Speed detecting sensor

fix the nut after adjust appropriate position

gap distance \( \leq 5\text{mm} \)
5 Notes

1. Should be stocked in a dry ventilated warehouse, do not be stocked in a humid, acidic and alkaline area, not coexist with magnetic object
2. Each connector inserted according to arrow to arrow
3. Avoid sharp objects impact on display
4. Avoid overload for long time when using
5. Avoid wading and soaking