Integration X35 System in Orbea Gain

X35 integration for OEM

The X35 system includes the ebikemotion platform, that is, that all end-user applications, diagnosis, production and back office environments are available to both end users and OEMs themselves.

The ebikemotion platform includes: Mobile APP and sports Smartwatch. Diagnosis APP for stores. Production APP for OEM, WEB, panel services for the end users. WEB monitoring and marketing tools for OEMs. All of this included in each X35 pack.

Components

Each X35 OEM pack includes:

- Inner Tube X35 battery X35 (250W)
- Smart BWS & motor controller inside
- X35 hub engine
- Remote control (CONE, iWoc or TRIO)
- depending of your electron.
- Charger, Wiring & accessories
- PAS sensor for freewheel
- ebikemotion APP maps license
- Lightweight X35 Hub engine
- User environment and OEM Ebikemotion Platform.

The following are optional elements:

- One Smart Display
- ExtraPower 250W optional battery
- GPS Tracker Location and remote diagnosis system

Target Applications:

- light ebikes
- e-city bicycles
- e-race/road bicycles
- e-gravel
- commuting e-bikes
- e-mtb XC

EBIKEMOTION TECHNOLOGIES Soc. Ltd
C/ Creusos, 10 - 34004
(Pontesol, Spain)

phone: (+34) 910 101 201
email: hello@ebikemotion.com
internet: www.ebikemotion.com

EBM TECHNOLOGY

Light & Smart eBike System

At a time when most of the sector is looking towards a powerful electric bike, which involves high consumption and, therefore, large batteries and system and cost increases, almost research bike its identity like a bike that may seem obsolete in the market. However, from the perspective of efficiency and optimisation, we have managed to recover the resources, creating a propulsion system (engine, battery, HMI, etc.) that offers the manufacturers of ebikes the chance to make something different, something that does not look like an ebike, something light (actually below 12 kg). A system with an uncommon autonomy that also allows the user to enjoy the feeling of cycling with an ordinary bicycle.

We are talking about the X35, the first of a large family of propulsion products that will give your bike its identity back.

Target Applications:

- Motor M1 36V / 250W
- Battery 250Wh
- HMI, wiring & accessories

only 3.5 kg and completely transparent for the user when the engine is not in operation.

The first one of the ebikemotion Series “X” systems to arrive on the market is the X35, a light propulsion system based on a rear HUB engine, with incredible potential and only 3.5 kg for the entire system, this is: Battery + Engine + Charge point + HMI and cabling. This weight, combined with a battery of less than 48 mm section (non-removable and under patent), allows the manufacturer of electrical road bikes with weights that range between 12 and 14 kg, in aluminum, and below 12 kg in carbon. But they also add a series of improvements:

- X35 includes its own pedalling sensor (under patent) that enables the manufacturer to install the desired bottom bracket system. This way they get rid of friction, and they achieve very smooth system starts and stops, offering the user a conventional bike when the electrical system is not switched on. This is completely impossible in a central engine.
- The battery has everything in a single body –engine control, cabling, BMS– and it remains fixed on the inside of the downtube. However, this is not a problem. Up to two external batteries can be connected to the system to reach 750W, with autonomies of more than 250 km for 75 km with the internal battery.
- The engine offers an incredible torque thanks to its gearing, reaching 40 Nm in the wheel axis, and with an optimal result at speeds between 15 and 25 km. These are ideal for commuting, city or road, right where it is needed when ascending. Simple and efficient. The essence of the “less is more” concept is carried out in an elegant way and studying the smallest detail.
- HMI interface breaks the moulds. The HMI CAN bus enables the connection of different solutions, from a single button with RGB LED integrated into the box, to a remote control of 3 or 5 buttons and a new generation colour display based on the Cortex A7 processor. Of course, the APP platform is fully compatible.
Simple and efficient. The essence of the “less is more” concept is carried out in an elegant way and studying the smallest detail. The X35 System offers a broad range of components and accessories so that the manufacturer can create its eBike. As a platform, it requires the development of a custom-made frame. For its manufacturing, ebikemotion has exhaustive documentation with drawings, details, alert points, 3D files, and a team of expert engineers in integration who review each one of the projects before they are launched on the market.

One of the biggest problems in the industry is that eBikes models are practically the same when the manufacturer uses a standard propulsion system. Only some ebike manufacturers can negotiate the modification of the behaviour of their eBikes with the manufacturer of the engine. The same thing happens with battery integration. At ebikemotion, it is exactly the other way round. In the integration services, we include a series of tasks to adapt the behaviour of the engine to the needs of the bike designed by the user. And we don’t mean the colour of the bike or its presentation for the market. What we are saying is that two eBikes equipped with X35 in the same segment and from two different brands will behave differently, and this is decided by the manufacturer.