

Technics at a glance.



Bosch eBike Systems 2012/2013



BOSCH
Invented for life

Drive Unit Cruise & Speed

- The Drive Unit consists of the central components of the motor, transmission, electronic control system and sensors.
- Equipped with an electronic control system and three sensors for torque, cadence and speed, the Drive Unit offers the unique Bosch riding experience.
- The low centre of gravity of the centre-mounted motor, with its optimum weight distribution, stabilizes the eBike and provides excellent and safe riding experience and optimum agility.
- The Drive Unit provides powerful, immediate and consistent assistance throughout the entire speed range, from cold start to top speed.
- The compact, robust and quiet Drive Unit is protected from rocks, dirt and splashes. It is maintenance-free.



Motor type	Cruise 25 km/h	Speed 45 km/h
Gear type	Hub gear / Derailleur gear	Derailleur gear
Nominal output	250 W	350 W
Torque	30 – 50 Nm	40 – 50 Nm
Pedaling assistance	30 % – 200 % / 30 % – 200 %	30 % – 250 %
Maximum assistance speed	25 km/h	45 km/h
Weight	< 4 kg	< 4 kg

PowerPack 300 & PowerPack 400

- The Battery Management System (BMS) protects the battery from overloading, undervoltage and overheating.
- The voltage of each cell is measured by an advanced Single Cell Monitoring (SCM) system.
- The BMS and SCM ensure that the battery will last as long as possible.
- Thanks to the latest lithium-ion technology, the battery does not have a memory effect and does not self-discharge.



Battery	PowerPack 300	New PowerPack 400*
Mounting type	Frame battery / Rack type battery	Frame battery / Rack type battery
Colors	black / white (just for rack type battery)	black / white (just for rack type battery)
Voltage (V)	36 V	36 V
Capacity (Ah)	8.2 Ah	11 Ah
Energy content (Wh)	300 Wh	400 Wh
Weight	approx. 2.4 kg	approx. 2.6 kg

* The higher energy density of the cells provides 30 % greater energy content. This means a 30 % longer range with a comparable battery weight.

Charger

- The Bosch eBike charger is quiet, compact and ideal for traveling.
- Charging time for PowerPack 300:
2.5 hours max. at 4 A (1.5 hours for 80 % charge)
- Charging time for PowerPack 400:
3.5 hours max. at 4 A (2 hours for 80 % charge)
- Weight: less than 0.8 kg



Intuvia on-board computer

- On-board computer equipped with separate remote control for simple, safe, intuitive operation at optimal readability.
- Five different modes: Turbo, Sport, Tour, Eco, Off
- Information on: range, route, time, maximum speed, average speed, travel time
- Off-board mode: all tour data can be accessed even when the computer isn't connected to the bike
- USB port: allows you to charge your smartphone or MP3 player on the road
- Walk assistance
- Weight 140 g

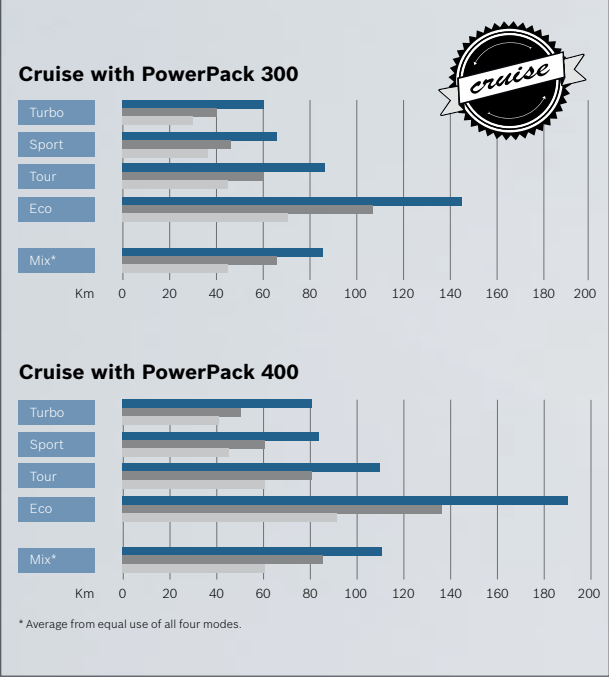


Drive modes

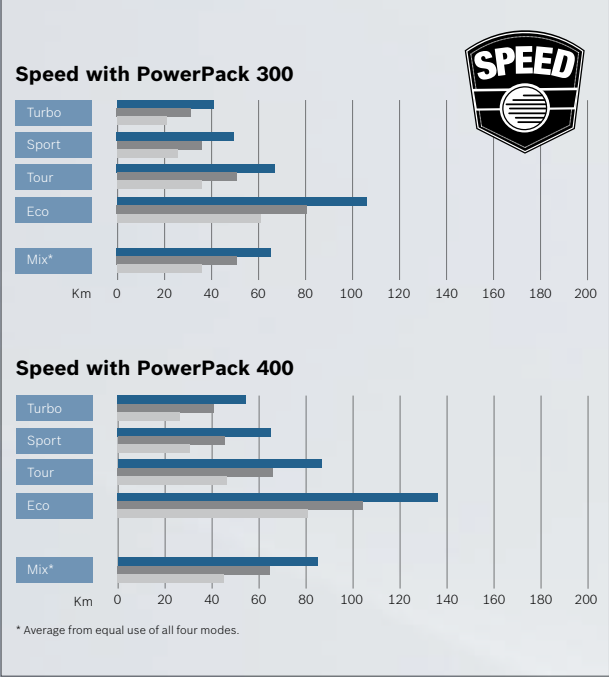
The Bosch eBike System includes five different drive modes — perfect for every eBike user and riding style:

Turbo	<ul style="list-style-type: none">• Maximum power assist even at the highest pedaling frequencies for sport riding• At 100 % personal pedal power, the motor contributes an additional 250 %
Sport	<ul style="list-style-type: none">• Immediate power assist for sport riding• At 100 % personal pedal power, the motor contributes an additional 180 %
Tour	<ul style="list-style-type: none">• Consistent power for long tours• At 100 % personal pedal power, the motor contributes an additional 100 %
Eco	<ul style="list-style-type: none">• Effective power for maximum range• At 100 % personal pedal power, the motor contributes an additional 30 %
Off	<ul style="list-style-type: none">• No power assist

Cruise



Speed



- Perfect conditions
- Good conditions
- Suboptimal conditions
- * Average from equal use of all four modes.

Perfect conditions

Horizontal terrain at 20 km/h average speed, no wind, temperature approx. 20°C, high-quality bicycle components, tire tread and pressure with minimal rolling resistance, experienced eBike user (always changes gears at the right time), additional weight such as luggage, trailer, rider less than 70 kg.

Good conditions

Slightly hilly terrain at 22 km/h (Speed 25 km/h), light headwind, outdoor temperature between 10 to 20°C, medium-quality bicycle components, tire tread and pressure with moderate rolling resistance, favorable pedaling frequency, eBike user usually changes gears at the right time, additional weight such as luggage, trailer, rider between (70 to 80 kg).

Suboptimal conditions

Terrain with long and steep inclines at an average 25 km/h (Speed 30 km/h), occasionally strong headwind, outdoor temperature less than 10°C, relatively inefficient bicycle components, tire tread and pressure with high rolling resistance, unfavorable gear selection and pedaling frequency, additional weight such as luggage, trailer, rider greater than 85 kg.



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