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# The new era.

The new Performance Line



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Bosch eBike Systems 2014



**BOSCH**  
Invented for life

# The new era.

e-powered by Bosch

A new era, a new riding experience. The new drive systems from Bosch give ebikes a modern technological and aesthetic advantage which is noticeable and visible with every revolution, every meter, every ascent, every journey.

With their intelligence and interaction, the components fulfil every request for support and provide an incomparable riding experience that is all about pure enjoyment of ebike riding. The new era stands for the highest quality and an independent and upscale product design recognised with the Red Dot Award. For inspiring technology, state-of-the-art ergonomics and components that set new standards. And for

a strong service culture and infrastructure: Trained Bosch eBike Experts are available to every ebiker virtually always and everywhere with advice and assistance directly in the bike shop.

Welcome to the new era of ebikes e-powered by Bosch.



reddot design award



### Drive Unit Cruise and Speed

New drive concept for additional power and dynamism up to 25 km/h and 45 km/h

### Batteries PowerPack 300 and 400

The extremely lightweight batteries in different variants as rack and frame batteries

### Cycle computer Intuvia

Can be operated easily and intuitively. With separate control unit on the handlebar

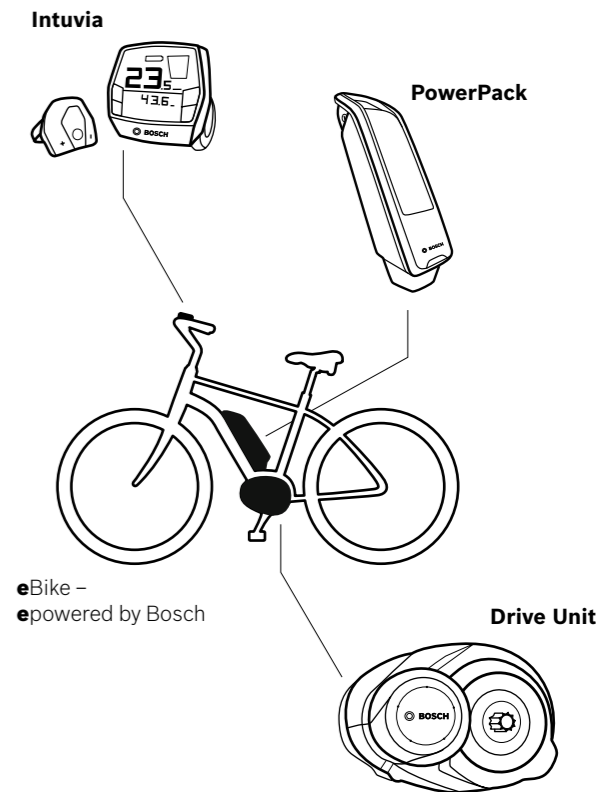


# Performance

The powerful and dynamic drive system

The new Performance Line offers a completely new riding experience for all who like their ride to be particularly sporty and powerful, who are looking for a new athletic challenge and who want to be underway in a dynamic fashion. Whether with Cruise up to 25 km/h or Speed up to 45 km/h, with the Performance Line Bosch is bringing a mass of energy and momentum to the street, to the dirt road, to the pass, to the single trail. The powerful drive system is both impulsive and controllable. With the highest precision, its performance is combined with that of the ebiker, generating support that dominates every terrain and every gear. From flat to steep. From moderate to full power.

Its design and ergonomics combine a high level of aesthetics and ease of use, making the Performance Line and its dynamic drive into the ideal system for a wide variety of very high requirements.



# Drive Unit

Power that lasts

The Drive Unit Performance develops a dynamic, noticeable but homogeneous boost. Both versions, Cruise and Speed, produce pronounced power for agile, sporty ebike riding.

The new 3-sensor concept for power, cadence and speed provides 1000 sensor measurements per second for optimised power tuning and for a new, unique riding experience.

The new design provides more ground clearance and makes the Drive Unit lighter and more compact. Durable, maintenance-free and low in vibration and noise, the Drive Unit Performance also impresses with shift detection and secure chain routing for smooth shifting and less wear.



**Drive Unit Cruise (25 km/h)**



**Drive Unit Speed (45 km/h)**



# PowerPack and Charger

Get far – charge up fast

Whether with 300 or 400 Wh, whether as a frame or rack battery, the PowerPacks in the new Performance design stand for an optimised range, for high performance, for extremely low weight and for very comfortable handling. Thanks to the handle, the frame batteries can be easily inserted and removed. The only thing easier is charging the PowerPacks directly on the ebike.

The batteries with unrivalled energy density are protected against overloading, undervoltage, overheating and short circuit by the battery management system.

The many qualitative attributes of the PowerPack enable high performance over a long service life.

**PowerPack 300**  
Frame battery



**PowerPack 400**  
Frame battery





**PowerPack 400**  
Rack battery



**Charger**

As lithium-ion rechargeable batteries, the PowerPacks are not subject to self-discharge or memory effect and can also be conveniently recharged directly on and off the ebike at any time, even when only partially discharged.

With the new Charger, charging is not only fast but also easy. The small, lightweight, durable and quiet unit with the new charging plug and convenient hook-and-loop cable is ideal for travel and ensures extremely short charging times: PowerPack 300 and PowerPack 400 are fully recharged again after no more than 2.5 and 3.5 hours. A 50% charge is reached after just 1 hour with the PowerPack 300 and after 1.5 hours with the PowerPack 400.

# Intuvia

## The clever control centre

With the cycle computer Intuvia, the new eBike System has a versatile controller with a separate control element on the handlebar for safety purposes.

The small ergonomic and technical masterpiece is intuitive to use, and its display is very easy to read, even in sunlight. Both shifting between the five riding modes plus walk assistance and viewing information such as speed, charging state, distance and much more could not be easier. Even fine adjustment of the wheel circumference is now available at your fingertips.

Even when removed from the ebike, Intuvia remains a useful information tool that makes it possible for you to retrieve all your tour data.

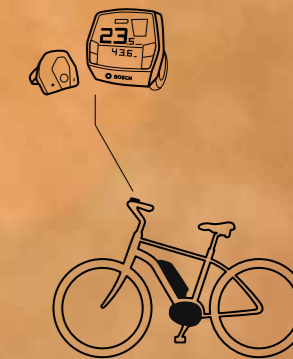
Separate control unit with walk assistance



Five different support modes with motor performance indicator, which provides information about current energy consumption



The USB port allows you to charge smartphones and MP3 players while riding



# Technical features

Everything at a glance

## The Bosch riding experience

The new 3-sensor system takes measurements 1000 times per second with high precision in order to determine what support the rider needs.

## Fast and faster

Sporty support for the drive versions Cruise (25 km/h) and Speed (45 km/h).

## Design for the bike and for visual appeal

Aesthetically attractive, high-quality, integrative and recognised with the Red Dot Award for product design.

## Especially ergonomic

All components meet the highest standards of ergonomics and user-friendliness and convince with a modern look and feel.

## Smooth shifting

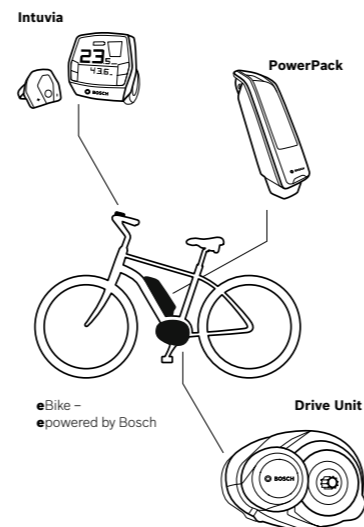
The intelligent shift detection provides for less wear on the chain and protection of the switching components.

## Optimal range

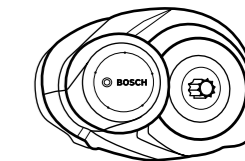
Precisely matched components enable optimal ranges thanks to efficient interaction.

## Service, service, service

Bosch trains ebike dealers throughout Europe, establishing a close-knit and comprehensive infrastructure with Bosch eBike Experts who are available to provide advice and assistance to ebikers directly in bike shops.



## Drive Unit Performance Cruise (25 km/h) and Speed (45 km/h)

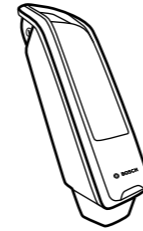


	Cruise 25 km/h	Cruise 25 km/h	Speed 45 km/h
Gear type	Hub gear system	Derailleur system	Derailleur system
Power	250 watts	250 watts	350 watts
Support level (%)	Turbo: 250 Sport: 170 Tour: 110 Eco: 50	Turbo: 275 Sport: 190 Tour: 120 Eco: 50	Turbo: 275 Sport: 190 Tour: 120 Eco: 50
Maximum possible drive torque (Nm) (converted to a transmission ratio of 1:1 crankset to chainring)	Turbo: 50 Sport: 50 Tour: 45 Eco: 40	Turbo: 60 Sport: 55 Tour: 50 Eco: 40	Turbo: 60 Sport: 55 Tour: 50 Eco: 40
Startup behaviour	dynamic	sporty	sporty
Max. speed	25 km/h	25 km/h	45 km/h
Backpedal function	no	no	no
Gear shift detection	no	yes	yes
Support up to	25 km/h	25 km/h	45 km/h
Weight	< 4 kg	< 4 kg	< 4 kg



## PowerPack 300 Performance and PowerPack 400 Performance

	PowerPack 300	PowerPack 400	
Mounting type	Frame battery	Frame battery	Rack battery
Voltage (V)	36 V	36 V	36 V
Capacity (Ah)	8.2 Ah	11.0 Ah	11.0 Ah
Energy content (Wh)	300 Wh	400 Wh	400 Wh
Weight (kg)	2.0 kg	2.5 kg	2.6 kg
Size (mm)	325 x 92 x 82 mm	325 x 92 x 90 mm	372 x 76 x 122 mm



## Intuvia Performance: Riding modes

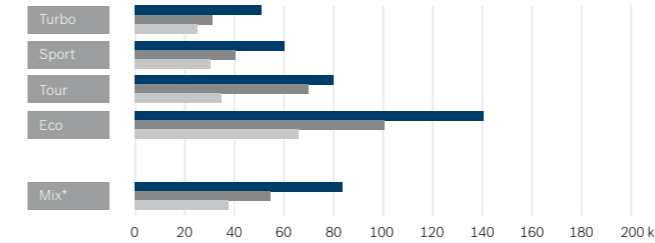
The Bosch eBike System provides five different riding modes to choose from, making the ideal support profile available depending on the application and rider type.

<b>Turbo</b>	Direct, powerful support up to maximum cadence for ambitious and sporty riding
<b>Sport</b>	Immediate, powerful support for sporty riding off-road and in city traffic (stop and go)
<b>Tour</b>	Steady support for long tours
<b>Eco</b>	Effective support at maximum efficiency for maximum range
<b>Off</b>	No support, all cycle computer functions are available

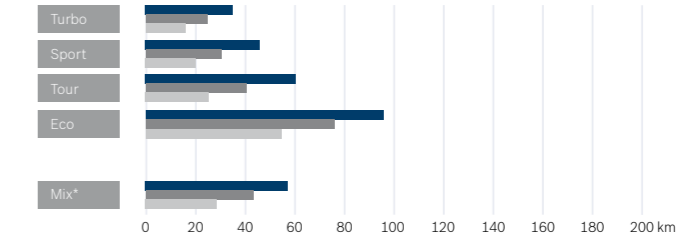


## Performance range

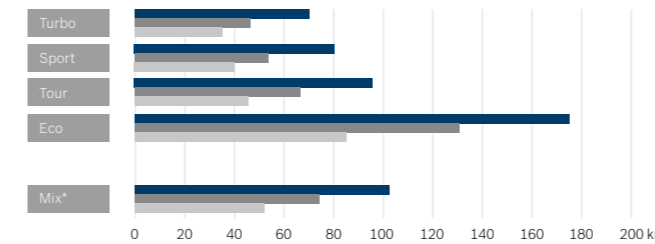
Cruise with PowerPack 300



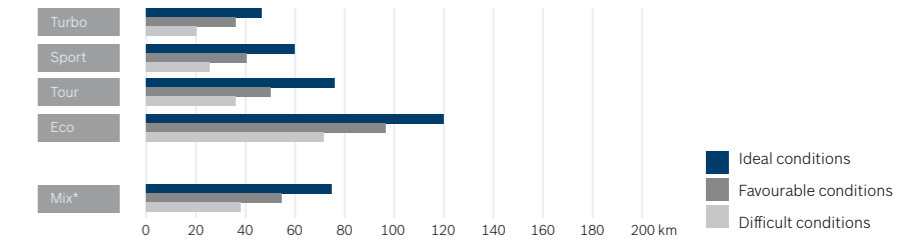
Speed with PowerPack 300



Cruise with PowerPack 400



Speed with PowerPack 400



### Ideal conditions\*\*

Flat terrain, approx. 15 km/h average speed, no headwind, approx. 20°C ambient temperature, high-quality bike components, tyre tread and pressure with minimal rolling resistance, experienced ebike rider (always shifts gears correctly), additional weight (excluding bike weight) < 70 kg.

### Favourable conditions\*\*

Slightly hilly terrain, approx. 20 km/h average speed, slight headwind, approx. 10°C to 20°C ambient temperature, medium-quality bike components, tyre tread and pressure with average rolling resistance, favourable cadence, ebike rider shifts correctly most of the time, additional weight (excluding bike weight) 70 kg to 80 kg.

### Difficult conditions\*\*

Terrain with long and steep inclines, approx. 25 km/h (Speed: 30 km/h), possibly strong headwind, < 10°C ambient temperature, bicycle components with relatively low efficiency, tyre tread and pressure with increased rolling resistance, unfavourable gear selection / cadence, additional weight (excluding bike weight) > 85 kg.

\* Average of uniform use of all four modes.

\*\* The calculated ranges are typical values which can be reduced if any of the conditions listed worsen. The actual range of the ebikes is the responsibility of the ebike manufacturer.

# Active Line

The harmonious and agile drive system

With the Active Line, Bosch is providing the most versatile custom-made solution for modern ebikers, for all day-to-day riding as well as special tours. Its many talents, which include efficiency, reliability, intelligence and quality, are brought together seamlessly and perfectly. The new drive concept combines the performance of Active with that of the ebiker with the utmost in precision, generating perfectly metered assistance, with the energy required travelling along in the form of the lightweight, varied PowerPacks. Optionally equipped with a backpedal function, the Active Line guarantees new, unparalleled riding comfort.

Its design and ergonomics combine a high level of aesthetics and ease of use, making the Active and its harmonious drive into the ideal system for a wide variety of very high requirements.

