Performance Line

More drive.
More passion.
More character.
Performance Line
The powerful drive system

Power at the right moment. With the Bosch Performance Line, you experience the ultimate in riding enjoyment – whether on long trails or through the city. The on-board computers Nyon and Intuvia are clearly arranged and user-friendly. Bosch PowerPacks set new standards in terms of weight, energy density, and range. Perfectly matched components are combined to form a first-class system. Fans of pure dynamics opt for the new, even higher torque Drive Unit Performance CX – the optimal drive system for off-road use.
The Bosch eBike system at a glance

On-board computer, Drive Unit, PowerPack – the components of the Performance Line work together as members of a practiced, perfectly coordinated team. The result: a symbiotic connection between the rider and eBike and a thrillingly natural riding sensation.

**Riding sensation**

Harmonious or powerful? The main thing is that it needs to feel natural. The Bosch riding sensation creates a unique eBike experience. Three sensors measure pedaling power, cadence, and speed more than 1000 times per second. This enables organic interplay between the rider and eBike.

**Range**

In every Bosch drive system, perfectly matched components work together efficiently, allowing you to ride the maximum ranges with your pedelec.

**Service**

We challenge ourselves to meet the highest standards of quality and reliability. This applies to our drive system as well as our comprehensive service infrastructure. For this we train Bosch eBike Experts throughout Europe who are available at bike dealers to offer advice and support.

**Design**

Bosch eBike Systems sets trends. This applies not only in the technical and ergonomic sense but also in terms of aesthetics.

**Nyon**

The all-in-one eBike on-board computer accompanies you from route planning to evaluation of the fitness data and is connected to the online portal and smartphone app. Nyon is the first fully networked ecosystem of the industry.

**PowerPack**

The powerful lithium-ion batteries are available as a frame battery with an energy content of 300, 400, and now 500 Wh, or as a rack variant with 400 or 500 Wh.

**Intuvia**

Using this clever control center, you control your pedelec experience easily and intuitively. Intuvia informs you clearly and reliably regarding all relevant information about your eBike system.

**Drive Unit Performance**

The Drive Unit Performance Cruise provides support up to a top speed of 25 km/h, and the Drive Unit Performance Speed can even support you up to 45 km/h.

**Drive Unit Performance CX**

The optimum drive for off-road – powerful acceleration, ultimate uphill flow, and a new dimension in riding enjoyment.

Your mobility is our drive

In the world of Bosch eBike Systems, the focus is on people. In the development of each product, we keep in mind what will really help you with eBiking. For individual needs and individual riding enjoyment, always the right drive – that is our claim.

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Drive Unit Performance

Whether getting to work relaxed or taking extended tours in your spare time – with the Drive Unit Performance you expand your action radius. The powerful drive accelerates with a noticeable boost – powerfully and naturally. In this way you can cope with long distances and gradients easily while having lots of fun – up to 25 km/h with the Drive Unit Performance Cruise or even 45 km/h with the Speed variant.

Drive Unit Performance

The powerful drive

Pure riding enjoyment thanks to the three-sensor concept

The Drive Unit Performance is equipped with the three-sensors for pedaling power, cadence, and speed. With 1000 sensor measurements per second, these provide optimum coordination of the system components. The result: maximum energy efficiency and a thrillingly natural riding sensation.

Sporty riding, gentle shifting

While you are shifting, the drive adapts its torque automatically to the shifting process. This takes stress off the components and makes eBiking extremely comfortable.

Compact and lightweight

Bosch eBike drive systems set standards in matters of ergonomics and weight. The compact drive arrangement enables optimal integration of Drive Unit Performance into the frame. There is more ground clearance for the eBiker. The reduced volume makes the drive lightweight.

Quiet, sturdy, and durable

Due to direct processing of the sensor signals and the precise motor control, Drive Unit Performance is optimized for minimum sound emissions and vibration. The secure chain run keeps the chain from being derailed and prevents the components from being subjected to undue strain. This reduces wear, maximizes comfort, and increases service life. The rock and splash water protection make the Drive Unit extremely rugged.

Specifications

Drive Unit Performance Cruise, CX and Speed

<table>
<thead>
<tr>
<th>Gear system type</th>
<th>Cruise</th>
<th>Cruise</th>
<th>CX</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power (watts)</td>
<td>250</td>
<td>250</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td>Support level (%)</td>
<td>TURBO: 260</td>
<td>SPORT: 170</td>
<td>TOUR: 110</td>
<td>ECO: 50</td>
</tr>
<tr>
<td></td>
<td>TURBO: 275</td>
<td>SPORT: 180</td>
<td>TOUR: 120</td>
<td>ECO: 50</td>
</tr>
<tr>
<td></td>
<td>TURBO: 275</td>
<td>SPORT: 210</td>
<td>TOUR: 120</td>
<td>ECO: 50</td>
</tr>
<tr>
<td></td>
<td>TURBO: 275</td>
<td>SPORT: 190</td>
<td>TOUR: 120</td>
<td>ECO: 50</td>
</tr>
</tbody>
</table>

| Maximum possible drive torque (Nm) (converted to a gear ratio of 1:1 crankset to chainring) |
| TURBO: 50 | SPORT: 50 | TOUR: 45 | ECO: 40 |
| TURBO: 60 | SPORT: 55 | TOUR: 50 | ECO: 45 |
| TURBO: 75 | SPORT: 60 | TOUR: 50 | ECO: 50 |

| Maximum cadence (rpm) with drive support |
| TURBO: 120 | SPORT: 120 | TOUR: 120 | ECO: 120 |

| Start-up behavior | dynamic | sporty | very sporty | sporty |
| Max. support up to | 25 km/h | 25 km/h | 25 km/h | 45 km/h |
| Backpedal function | no | yes | yes | yes |
| Gear shift detection | no | yes | yes | yes |
| Weight | < 4 kg | < 4 kg | < 4 kg | < 4 kg |

1000 sensor measurements per second
Experience mountain biking with unknown dynamics. The new Drive Unit Performance CX is the ideal drive off-road. The powerhouse thrills trail enthusiasts with a torque of up to 75 Nm, powerful pedal assistance up to 300%, and a dedicated mountain bike design. Real flow on the trail with incredible drive.

**Drive Unit Performance CX**
For fans of pure dynamics

**Maximum momentum**
Durable and strong – allowing high speeds with continuous maximum torque up to 75 Nm.

**Direct flow**
Small turn, big impact! Foot on the pedal and directly into the flow. You come out of the turn with power even at low cadence.

**Gear Change Control**
Direct gear changes enable sporty acceleration. With a 14T chainring in combination with SRAM 10-42 for the utmost mountain-climbing ability.

**Trail Control**
Through the dynamic power control typical for Bosch, the driver always has the right level of support (50–300%) in steep terrain off-road.

**eMTB-designed**
A purist rough look and optimal integrability with high-quality ISIS interface and minimum Q factor. Trail Control and Gear Change Control are easy on the chain and cassette.
Riding modes
You have the choice. Five riding modes assist you in individual mobility: Eco, Tour, Sport, Turbo, and Off. The additional walk assistance up to 6 km/h (Cruise) and the start-up help up to 18 km/h (Speed) make your life a little easier.

Service interval display
An optional feature from your dealer. With the new service interval indicator, you find out in due time when your eBike is due for service. Maintenance performed by your dealer increases safety, maintains value, and extends the service life of your pedelec.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbo</td>
<td>Direct, powerful support up to maximum cadence for athletic riding</td>
</tr>
<tr>
<td>Sport</td>
<td>Immediate, powerful support for athletic riding off road and in city traffic</td>
</tr>
<tr>
<td>Tour</td>
<td>Steady support for long tours</td>
</tr>
<tr>
<td>Eco</td>
<td>Effective support at maximum efficiency for maximum range</td>
</tr>
<tr>
<td>Off</td>
<td>No support; all on-board computer functions are available</td>
</tr>
</tbody>
</table>

Intuvia
The clever control center

With the on-board computer Intuvia, you control your pedelec experience easily and intuitively. The display, which is easy to read even in sunlight, informs you reliably about speed, support mode, battery charge level, and range.

Suitable for every riding situation
Five riding modes assist you depending on your wishes and riding situation: Eco, Tour, Sport, Turbo, and Off. The spectrum ranges from smart support for the greatest possible range in Eco mode to maximum, powerful support in the highest cadences in Turbo mode.

Shift recommendation
Your system detects whether you are in the optimum efficiency range and recommends a higher or lower gear—using simple arrow symbols. The result: a more pleasant riding experience and the greatest possible range.

Off-board mode
Even when removed from the eBike, Intuvia remains a useful basis information source that makes it possible for you to view all your tour information.

Charging mobile devices
Using the integrated micro-USB interface, you can charge mobile devices such as your smartphone while you are on the go.
The all-in-one on-board computer for the eBike

Everything you need for your personal, fascinating eBike experience is in view and ready to be accessed. Navigation, riding data, range, fitness, incoming text messages, and much more: Nyon supports you from route planning to the tour to the evaluation of your activities with additional features and custom options. Nyon marks the beginning of a new era: the first fully networked ecosystem of the industry.

Overview
Large display, characteristic screen design, concise presentation. The transreflective 4.3-inch color display is readable in all lighting conditions.

Usability
The all-in-one on-board computer is rugged and adapted to the needs of eBikers. Control is intuitive using the 5-way joystick on the device or – during the ride – on the separate control unit.

New
Nyon is now available for retrofitting on all eBikes with Bosch drive starting with model year 2014. This also includes the Active Line.

More storage
To make more maps available on Nyon, the storage capacity has been expanded to 8 GB.

More information can be found in the detailed Nyon tour report from Switzerland.
Intelligently networked
Welcome to the world of Bosch eBike Systems

By connecting with the smartphone app eBike Connect and the online portal eBike-Connect.com, Nyon provides access to the fascinating world of Bosch eBike Systems. It offers numerous features that provide useful insights from data and make eBiking into a completely personalized experience. Welcome!

Smartphone app eBike Connect
Through custom adjustments in the smartphone app eBike Connect, you make Nyon into your personal eBike assistant. You configure your screen or refine the settings of your riding modes just as you wish with our premium feature. Data is exchanged via Bluetooth.

Online portal
The Bosch online portal eBike-Connect.com creates your own personal eBike information profile for you. There you have a clear overview of all activities. You can plan and analyze customized tours in the portal, with an overview of times, altitude, distance, and your fitness. Or you import a GPX track and transmit it to Nyon via the portal.

Nyon turns your pedelec into your own personal trainer. The on-board computer measures fitness-relevant data such as cadence and pedaling power. And Nyon calculates how effectively you are exercising based on your body data. If you wear a chest strap, Nyon even takes your cardiovascular values into account in this calculation. In this way you have all the information for supporting you in maintaining and improving your fitness and health over the long term.

Nyon features overview
All of the most important information relevant to riding at a glance. Speed, riding mode, cadence, range, and much more. You decide for yourself what data is displayed on your Ride screen. And the size and order of presentation is according to your wishes.

Your personal eBike assistant
Plan your route online, on your smartphone, or on the on-board computer itself. With intuitively understandable, distinctive symbols, Nyon takes you on the most scenic or fastest eBike routes.

New
MTB Routing
With the route profile “eMTB” Nyon takes you mainly on unsurfaced paths and trails.

GPX import
You define your own routes and import them into the eBike-Connect.com portal.

Multiple waypoints
Plan and include up to ten destinations.

A pop-up informs you via Bluetooth regarding arrival of a new SMS on your smartphone and the sender. In this way you are always up to date – no matter where your eBike adventure takes you.
The integrated electronic gear shifting solution for those who like to focus on what is essential in eBiking – riding enjoyment. The innovative concept provides greater riding comfort, more safety, and – due to a gear ratio that is always optimal – even more range. eShift is available in three variants optimized for different riding styles.

**eShift with Shimano Di2**

Fast, sporty, efficient. eShift with Shimano Di2 shifts your pedelec like a sports car. Touching the Shimano shift paddle is sufficient for quick and dynamic gear shifting. In manual mode the gearshift recommendation helps you to always make optimal use of the battery. With the Auto-Downshift function, the gear system automatically switches to the defined starting gear – increasing safety and riding comfort.

**eShift with SRAM DD3 Pulse**

Those who do not want to use automatic shifting can shift the 3-speed hub electronically on the Bosch control unit.

**eShift with NuVinci Optimized™ Harmony H|Sync™**

Manual electronic gear shifting is now possible in nine pre-set speeds.

**eShift with Shimano Di2**

Now with Auto-Downshift function: When the rider comes to a stop, the gear shifting system automatically shifts to the defined starting gear.

**Auto-Downshift when stopping with Shimano Di2**

When the rider comes to a stop, the gear shifting system automatically shifts to the defined starting gear.

**eShift with SRAM DD3 Pulse**

**Auto-Downshift when stopping with Shimano Di2**

When the rider comes to a stop, the gear shifting system automatically shifts to the defined starting gear.

**Riding with speed**

**Stop: eShift automatically shifts down**

**Starting up in low gear**

**New**

**Performance Line**
Lithium-ion batteries have neither memory nor self-discharge effects. This means the PowerPacks can also be partially re-charged at any time – without affecting the service life.

High mileage and long life
The integrated Battery Management System (BMS) reliably protects the battery from overcharging, undervoltage, overheating, and short circuit. A long service life with high mileage is guaranteed.

Best in class: There’s nothing lighter
Bosch PowerPacks are the batteries with the best balance of performance, size, and weight. How do you benefit? A powerhouse for unique riding experience.

Simply ingenious: The handling
Thanks to the ergonomically well-conceived handle and optimal mount, the batteries can be easily inserted and removed. The only thing easier is charging the PowerPacks directly on the eBike.

Easy to store, optimally charged – anytime and anywhere
Lithium-ion batteries have neither memory nor self-discharge effects. This means the PowerPacks can also be partially re-charged at any time – without affecting the service life.

### Performance Line

**PowerPack 400**

- **Mount type**: Frame battery, Rack battery
- **Voltage**: 36 V
- **Capacity**: 13.4 Ah
- **Energy content**: 400 Wh
- **Weight**: 2.6 kg
- **Size**: 325 × 92 × 90 mm

**PowerPack 500**

- **Mount type**: Frame battery, Rack battery
- **Voltage**: 36 V
- **Capacity**: 13.4 Ah
- **Energy content**: 500 Wh
- **Weight**: 2.7 kg
- **Size**: 325 × 92 × 90 mm

**PowerPack 300**

- **Mount type**: Frame battery
- **Voltage**: 36 V
- **Capacity**: 8.2 Ah
- **Energy content**: 300 Wh
- **Weight**: 2.0 kg
- **Size**: 325 × 92 × 82 mm

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**PowerPack 500**

- 25% more range with additional weight of just 4% compared to PowerPack 400.

- Reduced charging time
  In approx. 4.5 hours, you can completely charge the PowerPack 500, and you can charge it up to half in approx. 2 hours.

- **PowerPack 300**

  - Mount type: Frame battery
  - Voltage: 36 V
  - Capacity: 8.2 Ah
  - Energy content: 300 Wh
  - Weight: 2.0 kg
  - Size: 325 × 92 × 82 mm
**Ideal conditions**
- Flat terrain, approx. 15 km/h average speed, no headwind, approx. 20 °C ambient temperature, high-quality bike components, tire tread and pressure with minimal rolling resistance, experienced eBike rider (always shifts gears correctly), additional weight (excluding bike weight) < 70 kg.

**Favorable conditions**
- Slightly hilly terrain, approx. 20 km/h average speed, slight headwind, approx. 10 °C to 20 °C ambient temperature, medium-quality bike components, tire tread and pressure with average rolling resistance, favorable 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 at 25 km/h average speed, possibly strong headwind, < 10 °C ambient temperature, bicycle components with relatively low efficiency, tire tread and pressure with increased rolling resistance, unfavorable gear selection/cadence, additional weight (excluding bike weight) > 85 kg.

* Average of equal 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.

You can find out everything worth knowing about the PowerPack in the eBike battery guide.
Bosch Chargers are compact, lightweight, and rugged. And above all, really fast. To allow you to enjoy your eBike experience without interruption, you do not necessarily need 230 volts: while traveling you can charge your eBike with the Travel Charger on the cigarette lighter of a car or motorhome.

**Compact and Lightweight**

The Bosch eBike Charger is only about as big as a water bottle and very lightweight, at just under 800 grams.

**Charger**

Faster charging made easy

An empty PowerPack 300 is fully charged within 2.5 hours, while a PowerPack 400 requires 3.5 hours for this. The new PowerPack 500 is fully charged within 4.5 hours. Approx. 1 hour is required to charge the PowerPack 300 up to half, 1.5 hours for the PowerPack 400. It takes approx. 2 hours to charge the PowerPack 500 to 50%.

**Doesn’t waste any time**

The Bosch eBike Charger

A compact and lightweight charging solution for your Bosch eBike. With a charging capacity of 4 A, it is suitable for use with Bosch eBikes from the Active Line and Performance Line.

**Type Standard Charger**

<table>
<thead>
<tr>
<th>Charging current</th>
<th>4 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charging time</td>
<td>230 V</td>
</tr>
<tr>
<td>Voltage range</td>
<td>230 V</td>
</tr>
<tr>
<td>Size</td>
<td>190 x 86 x 54 mm</td>
</tr>
<tr>
<td>Cable lengths</td>
<td>AC input: 1.5 m, DC output: approx. 1.0 m</td>
</tr>
<tr>
<td>Plug</td>
<td>Country-specific power cord</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 800 grams</td>
</tr>
</tbody>
</table>

**Charging time**

- 300 Wh: 50% in approx. 1.5 h, 100% in approx. 2.5 h
- 400 Wh: 50% in approx. 1.5 h, 100% in approx. 3.5 h
- 500 Wh: 50% in approx. 2 h, 100% in approx. 4.5 h

When traveling: The Travel Charger

With the Travel Charger you can charge your eBike on the move – using the cigarette lighter or the 12 V power socket of your car or motorhome. Clever: The device weighing barely 500 g has integrated discharge protection for the car battery.

**Type Travel Charger**

<table>
<thead>
<tr>
<th>Charging current</th>
<th>2 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charging time</td>
<td>230 V</td>
</tr>
<tr>
<td>Voltage range</td>
<td>12 V</td>
</tr>
<tr>
<td>Size</td>
<td>190 x 86 x 54 mm</td>
</tr>
<tr>
<td>Cable lengths</td>
<td>DC input: 1 m, DC output: approx. 1.0 m</td>
</tr>
<tr>
<td>Plug</td>
<td>12 V cigarette lighter + 12 V on-board power socket (via adapter cap)</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 500 grams</td>
</tr>
</tbody>
</table>

**Charging time**

- 300 Wh: 50% in approx. 2.1 h, 100% in approx. 5.5 h
- 400 Wh: 50% in approx. 2.8 h, 100% in approx. 6.5 h
- 500 Wh: 50% in approx. 3.5 h, 100% in approx. 7.5 h

**Functional, rugged, and silent**

An ergonomically shaped plug facilitates handling, and the very compact dimensions make the unit easy to stow in your luggage. The closed housing makes the Charger rugged and resistant to dirt.

**Active Line**
