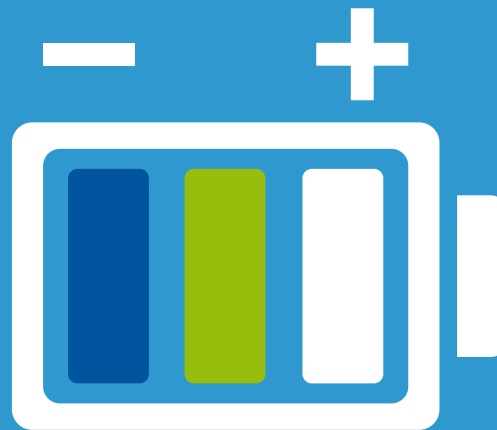


# 2015/2016 CATALOGUE - ELECTRIC MOBILITY



**WAYEL** Electricbikes



# WAYEL Electricbikes

## General Catalogue Electric Mobility 2015/2016



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# ABOUT US

## Wayel, an entrepreneurial project looking to the future

### 2007

**Termal Group**, which over the years has established a deep experience in the Far East concerning the field of air conditioning, enters the market of electric mobility and founds Wayel: this with the goal to give the Italian interpretation of the phenomenon of the electric bike, that represents a real boom in China.

### 2008

In cooperation with the University of Bologna within the program of battery testing, **OneCity** is born, the electrically assisted pedal bike with shaft drive transmission. Concept & design are **Made in Italy** exclusively; OneCity is presented at **RtoB Innovation Show in Bologna**.

### 2009

One City is selected by the town of Genoa for Mobike service.

During **G8 Environment in Syracuse**, 150 OneCity bicycles were selected as courtesy bikes for ministers and staff's transfers to Ortigia island, where the authorities' meetings took place.

In October, OneCity was selected to be presented, as excellence product, at **ZIG ZAG fair, National Museum of New Sciences and Technological Innovation in Tokyo**.

### 2010

Wayel launches on the market the **SUV** model – **Shopping Utility Vehicle** – which is the ideal solution for carrying large volumes and heavy loads. The concept of proximity electric mobility is taking shape in utility interpretation, that is suitable to daily use, as for example for the shopping at the supermarket. This model has achieved a great success, so much so that even today the SUV is a "big" of the catalogue.

### 2011

**The range extends:** Wayel presents 3 new models: E-Bit, OneCity Long Ride and Eco'.

With **E-Bit**, acronym of **E-bike in trolley**, Wayel faces the intermodal transport: E-bike can be easily loaded and stored in its trolley supplied. The bicycle can be quickly folded in 3 simple moves and easily carried by **all means of transport**: car, camper, train, subway, bus, boat, plane.

**OneCity Long Ride** is the ideal leisure bike for long distances, with a range higher than the average, while **Eco'** is the easy electric bike, having a price within everybody's reach and suitable for different users. Wayel stands out again by introducing on the market a line of **lightweight Lithium Polymer batteries**: interchangeable on all models, **certified UN38.3** and in 3 different energy sizes, these batteries give their customers the opportunity to determine the electric bicycle's range according to their needs.

### 2012

Wayel faces the performance and proposes new models, designed for responding to the particular needs that a normal electric bike can hardly satisfy. Wayel introduces on the market **OldTown**, OneCity Long Ride Special and **FUTURA**. **OldTown** is the electric bicycle suitable to the old town centres: with its lively acceleration and triple cushioning, OldTown allows you to face uneven pavements with great comfort. **OneCity Long Ride Special**, combined with the 4th battery size, achieves a record range with only one recharge: 160 km. **FUTURA** is a technological goal of Wayel. An electric bike that does not fear upward slopes and which loves long distances. **FUTURA** is highly comfortable and innovative even regarding the **antitheft N'lock device**. The enjoyable race of **St. Luke's challenge**, organized in Bologna on the occasion of the European Week of Sustainable Mobility, marks the record of climbing for an electric bicycle: 8 minutes to cover 2 km of prohibitive slopes.





## Our mission

### 2013

Wayel launches on the market **Trilogia, the bike made in three versions**. An industrial project, which starts from a single model platform and characterizes into three different types of service, by using customized components.

On October 31st, 2013, after three years of studies and research, Wayel presents Solingo, the innovative electric city motorbike. By the production of a motorbike fully made in Italy, powered also by the solar energy, Wayel extends the field of their activity with the specific intent to cover all market segments of light electric mobility.

### 2014

The year 2014 sees the laying of the foundation stone of the new **factory FIVE** for the production of electric vehicles, a novelty in Italy. In contrast with the strong economic crisis, **Termal Group** decide to invest and expand their proposal of mobility. The new factory of 7.100 square meters will operate according to a **ZEB logic (Zero Energy Building)** and will be able to self-produce not only the energy used for living comfort but also that required for their industrial production – that is all the energy required by their activity. **Made 2.0** line is born, with which Wayel inaugurates the new production cycle of the electric bikes not only designed, but also made in Italy. The first models **Made 2.0** are **FUTURA 2.0** and **Trilogia 2.0 (briosa, sicura and poderosa)**.

### 2015

At **Expo**, Wayel too is a guest at the **Waterstone Stand** of Intesa Sanpaolo, to represent the quality and excellence of made in **Italy**. Selected from over 1.000 candidatures, Wayel has attended the **World Fair 2015** as a guest in the 'home' of Intesa Sanpaolo, telling their story and the ambitious project of back-shoring, with which they intend to return the production of their electric vehicles from China to Italy.

From Wayel point of view, producing electric bikes built for people is more than a professional activity. It is an ideal of well-being and quality of life that combines with meticulous research and development. Electric bikes, conceived as a smarter and more versatile vehicle for moving about, are the result of this virtuous process made of passion and devotion.

Not by chance, our mission is just **“not an e-bike for everybody, but one bike for each one”**, and expresses exactly what we have been pursuing: from the first OneCity up to the sophisticated and technological FUTURA 2.0, our firm intention is to produce vehicles able to cover and satisfy the demands of all the market segments of light electric mobility. A site of exclusive technologies, where there is always the right solution to face the peculiarities of each route in the city, in the suburbs and outside the town.

#### Which are the features that make our product successful?

Front-wheel drive with Brushless motor on the wheel, and traditional mechanical freedom on the rear so that the rider can select the most appropriate ratio as to the muscular effort he wants to exert. Unlike the torque sensor, the speed sensor ensures the symbolic pedalling to the lovers of **“zero effort”**, but also allows a greater muscular effort by operating on the gearbox.

All Wayel bicycles are equipped with plurisize batteries. Also the safety travelling is a plus to which the Research & Development department keeps on working. In FUTURA 2.0 newest line, the brake system becomes more powerful: the front part houses the hydraulic disc brake with wire controlled calliper; in the rear little fork there is the classic V-Brake; the indicators are inserted in the knobs, to turn into any road in absolute visibility and without danger. Finally, the functionality: the **shaft drive** and **belt drive** transmission of Wayel bikes allow the use of the vehicle even in office clothes, avoiding the problems caused by chain drive transmission. All these devices give a typically urban dimension to Wayel models, **expressing the desire to make these bikes the ultimate instrument of the alternative mobility**.

## E-Bike what a passion!

Current studies as well as of course, personal experiences, have shown that in rush hours a bike is 25% faster than a car and 50% faster than the public transport vehicles. Moreover, thanks to the electric bike you can do regularly – always with no effort - a bit of physical activity, follow paths through the parks and proceed along dedicated cycle ways.

Here are **4 good reasons to choose** an electric bike for your travels.

1

#### You can save your money and protect the environment

The power consumption of an electric bicycle is practically equal to zero. During its use, the e-bike does not emit polluting exhaust fumes that are harmful to the environment. It is extremely silent, it is not subject to the road tax and has no obligation of insurance.

2

#### You can save time

The use of an electric bicycle allows you not to get stuck in the traffic and especially you can park the bike anywhere. On short city trips, the e-bike is surely faster than a car.

3

#### It is functional

The electric bike is particularly suitable for short daily commute, such as going to work, running errands or doing the shopping. You can often reach destinations prohibited to other vehicles in LTZ areas.

4

#### It's healthy

The regular use of the electric bike, with respect to normal bike, allows to choose when and how much effort do on pedals, thus allowing to get to your destination without effort. Or if you prefer, you can limit the electric assistance and help the engine with your muscles, so doing an aerobic physical activity. This pleasant exercise can be made at any age, and will make you feel very good.

FUTURA

2.0

## Made 2.0 Line

### **MADE 2.0. A bike that loves Italy.**

Wayel's Made 2.0 line consists of electric bikes designed, drawn and made in Italy.

The will to focus the production in Italy consists in creating a product that combines craftsmanship, imagination and passion typically Italian, with all the innovative technological features that Wayel staff never tires of trying out.

*Made 2.0* is the idea that is taking shape. And the shape is the charming design of Italy, that has come to life in the powerful FUTURA (2.0) and Trilogia (2.0) briosa, sicura & poderosa. It is a source of great satisfaction for Wayel to say that we have designed and produced here in Bologna the electric bikes of Made 2.0 series, as these e-bikes concretely represent the engagement, the creativity and passion of all of us that have made them.



The warranty of 3 years on *Made 2.0* products can be applied to Italian market and to private customers only. For further information please contact your sales manager.

# FUTURA 2.0

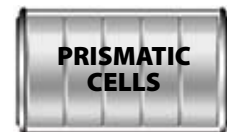




# FUTURA 2.0



MAN

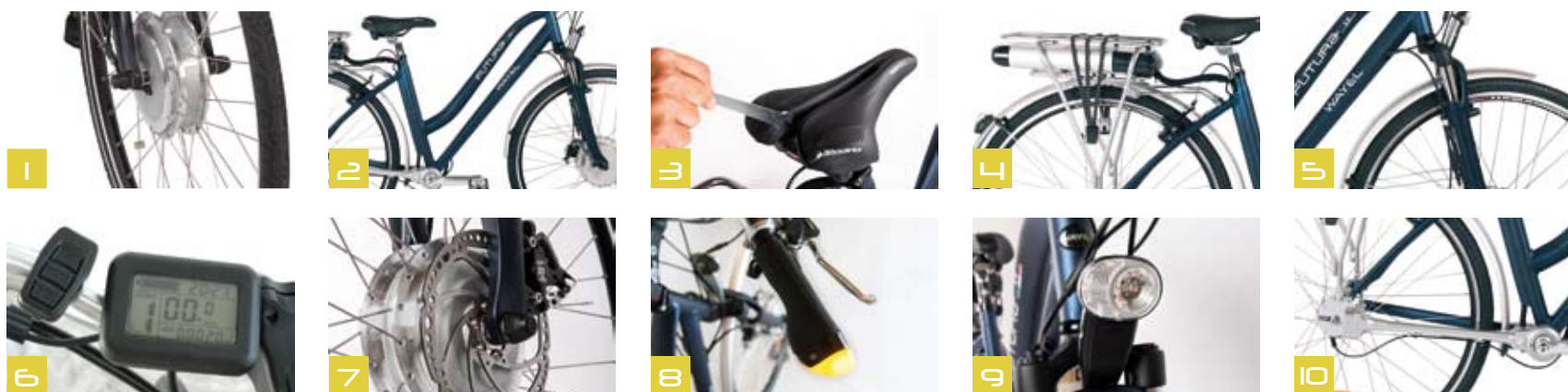


## FUTURA 2.0 E-BIKE OF MARVELS

Performance and preciosity, technology and design, efficiency and elegance. **FUTURA 2.0**, the electric bicycle of Wayel's Hill Leisure segment, includes all this. Thanks to the new plus, the new line moves forward the concept of intelligent mobility made of handiness and advanced electronics. **FUTURA 2.0** Man and Unisex, both available in blue and red colour, appear with the new Modular saddle of Selle di Bassano, a product Made in Italy. This saddle can be adjusted in width, according to the anatomy of the User, thus ensuring overall style and comfort. Suntour forks, shaft drive transmission and antitheft system "steering N'Lock", ensure comfort and safety.

Maintenance becomes easier in the new **FUTURA 2.0** line, with 'all in one' cables and connectors for a quick servicing. The brake system becomes more powerful: in the front, there is the hydraulic disc brake with wire-commanded calliper, and in the rear little fork there is the classic V-Brake. More safety when moving and more stability at a stationary position, are the concepts to be tied to two other important news: **the indicators inserted in the knobs for absolute visibility to others** - thus increasing your safety -, and the middle kick-stand that allows the bike to be stationed in a vertical position when it is stopped.

All **FUTURA 2.0** models are characterized by a Brushless electric motor, 38Nm torque. In **FUTURA 2.0** new line, the pedalling sensor is compact and integrated in a cap: these features allow a higher stability of signals and maintenance, and surely a better assistance when the bike is started.

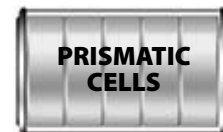


N'lock anti-theft system: once activated, you can no more give a direction to the handlebar, thus preventing the riding of the bike. Also useful to save space in the garage.

- 1 Brushless motor 250W/38Nm torque
- 2 Hydroformed aluminium frame
- 3 Modular saddle of Selle di Bassano, adjustable in width
- 4 SLIM batteries 36V, in 2 models 10Ah & 12.5Ah
- 5 Suspension front fork at high resistance
- 6 Multifunction display with backlight LCD
- 7 Hydraulic front disc brake with wire-commanded calliper
- 8 Indicators inserted in the knobs
- 9 Front & rear Spanninga lights, with LED technology
- 10 Shaft drive transmission



UNISEX





### Available colors

#### Man



#### Unisex



### The 5th speed is the additional one

FUTURA's special features are enhanced uphill. When facing very steep climbs, it is advisable to engage the 5th speed. The engine is always safeguarded by safety thermal protections in the event of excessive performance requirements. The engine is supercharged and expresses its full power. The use of the 5th speed on the plain tends to exceed the limits of law, and therefore the control unit is able to limit the power through tachymetric on-off.



Middle kick-stand for stationing in vertical position.



The 7-speed Shimano Nexus gear appear in the new line with Rapid Fire selector.

### Soft start function

The backlit LCD display controls a multifunction control unit with 5 different assistance levels, kilometer indicator, charge meter and speed meter. Motor starts after 1/3 pedal stroke, but soft start function enables starts from a stationary position and can be activated by keeping pressed the button on the keypad near the display (upward arrow.) Soft start operates at max. speed of 6 km/h and it is very useful when moving off at traffic lights and when restarting along a hill up to 30%. This device is also helpful when wheeling the bicycle up very steep slopes or pushing it by hand in pedestrian only areas.

### Long trip road tyres



The tyres expressly designed for e-bikes, are able to offer lower power consumption thanks to low rolling resistance; tyres also allow lower noise level thanks to the tread pattern typical of a car.

### Technical features

Model	man/unisex
Transmission	shaft drive
Colour	satın blue/red
Frame	Hydroformed aluminium 6061
Speed limit	25 km/h
Carrier	type-approved in accordance with to law for max. weight 25 kg
Wheels/tyres	28" x 1.5", long trip
Motor capacity/torque	250W/38Nm Brushless 36V
PAS	20-magnets pedalling sensor, integrated
Weight excluding battery	24.1 kg
Battery	removable LiPo 36 Volt
Brakes	front: front hydraulic disc brake/ rear: V brake
Saddle	adjustable in width
Front fork	suspended
Lights	front & rear battery LED Spanninga
Gear	Shimano Nexus 7 - speed gear
Standard accessories	LCD multifunction display; soft start device; 5 assistance levels; speed meter and kilometer indicator, backlight; N'lock antitheft system; elastic luggage rack
Optional accessories	rear bags; battery bag

### Battery bag

Carrying with you the lightweight SLIM & SLIM HP batteries is now easy thanks to the bag in standard equipment, made of soft canvas: a practical and functional solution for holding and carrying the battery easily, bringing it on your shoulder as a comfortable walking bag.

### Selectable speeds

Batteries	SLIM	SLIM HP
Ah - V	10Ah - 36V	12.5Ah - 36V
Weight	3.3 kg	3.8 kg
Charging time 100%	5h	6/7h
Range	40-55 km	55-70 km

# tri/ogia

briosa

2.0



# tri/ogia

sicura

2.0 





# tri/ogia

poderosa

2.0





## TRILOGIA 2.0.

### THE EXCELLENCE OF MADE IN ITALY FOR 3 DIFFERENT SOLUTIONS OF ROUTE

The activity of Wayel expresses through the **creation of electric bicycles built for people**. A yard of exclusive technologies, where there is always the right solution for facing the peculiarities of each route in the city, in the suburbs and outside the town. Always in search of innovation, today Wayel presents a renewed version of **Trilogia 2.0**, the line of electric bicycles with shaft drive transmission. The combination of experience and innovation has led R&D Department to test solutions that satisfy the new real needs of Users.

The line, which meets the needs of three different kinds of route, presents important news. All **Trilogia 2.0** bicycles have 36V plurisize interchangeable batteries. These are Lithium-Ion batteries, equipped with Samsung cells, ensuring a higher quality and safety. A further new feature of this line is the seat: 2 cm lower, with saddle made in Italy. Moreover a greater smoothness, long-life and sophisticated design, make the new tyres a plus for the entire line.

**Trilogia briosa**, ideal for the town, is available in two "city" colours: mat light blue and dove grey. It has a Brushless motor of 250W.

**Trilogia sicura**, the great compromise between riding comfort and handiness off-road. The driving position and the suspension fork provide a very relaxed riding, ideal for a day trip towards green explorations among hills and countryside.

Fork, seat and tyres are the three plus that ensure a triple cushioning and the maximum comfort to **Trilogia poderosa**, equipped with a strengthened motor 20.2Nm torque. **Trilogia poderosa** is the bicycle to ride in the greatest comfort, to which more safety is provided in case of tramlines.



Matcheable Samsung batteries, 36V, in 2 different capacities: 7.8Ah and 10.4Ah



Shaft drive transmission and Shimano Nexus 3 speed gear



Spanninga front & rear lights, with LED technology at low energy consumption, independent from the battery



Easy smartphone bearing



Control on STEM for a simplified wiring, for the best appearance

#### Multifunction control unit with *soft start* device

Multifunction control unit with assistance for 3 different speeds. It checks the battery charge and activates **soft start** function by keeping pressed the special button: the bike automatically starts from rest to 6 km/h, with no need to cycle.

#### 12-magnets pedalling sensor, integrated

Twelve magnets housed in an integrated cap, and a sensor that senses the magnetic field they generate, ensure the immediate control during the pedals' rotation. When the biker accelerates and the rotation increases, the system communicates to the control unit to increase the power supply to the motor. This system provides a perfect synchronization between the biker's wishes and the performance of the vehicle. You can choose to "push" a little or a lot, and in this way, the use of the whole power of motor (250W) is always ensured.

briosa  
UNISEX



## TRILOGIA 2.0 BRIOSA PURE ITALIAN DESIGN!

**Trilogia 2.0 briosa** is the electric bike with modern lines suitable for city riding, offering high comfort and elegance. The innovative hydroformed aluminium frame with rack included, combines design and innovation.

It is available in two colours: mat light blue and mat dove grey, in line with the latest trends of design and fashion. **Trilogia 2.0 briosa** is completely made in Italy, in a sector where the made in Italy is not absolutely obvious.

But in **Trilogia 2.0 briosa** there is also the technical side: first of all, the powerful Brushless motor 250W - allowing the bicycle to admirably face whatever route -, then the integrated 3-speed Shimano Nexus gearbox, and finally the hallmark of Wayel house, that is the shaft drive transmission, a "luxury" for an electric bicycle that wants to attack the market.



Two-coloured seat available in the colours light blue and dove grey, matched with the frame



**Briosa's** rack is aligned with the riding position. It is possible to place a children seat on the rack, realized according to safety regulations concerning kids

### Available colors

mat light blue

dove grey



### Technical features

Model	unisex
Transmission	shaft drive
Colour	mat light blue/dove grey
Frame	Hydroformed aluminium 6061
Speed limit	25 km/h
Wheels/tyres	26" x 1.5"
Motor capacity/torque	250W/19Nm Brushless 36V
PAS	12-magnets pedalling sensor, integrated
Weight excluding battery	22.1 kg
Battery	removable Lithium-Ion 36V with <b>Samsung cells</b>
Brakes	front & rear V brake
Saddle	two-coloured
Front fork	fixed
Lights	front & rear battery LED Spanninga
Gear	embedded Shimano Nexus 3 - speed gear
Standard accessories	multifunction control unit; <i>soft start</i> function
Optional accessories	rear bags

### Selectable speeds

Batteries	SHORT	LONG
Ah - V	7.8Ah - 36V	10.4Ah - 36V
Weight	1.9 kg	2.3 kg
Charging time 100%	4h	5h
Range	35-50 km	50-65 km

### Trilogia 2.0: pure Italian design

Soft shapes and precise finish where you can see the skilful Italian hand crafted. With **Trilogia 2.0**, Wayel wanted to give shape to the fantasy and passion of designers and workers who together have created a product having a temperament and features purely made in Italy. Slogan: stylish look for anyone wishes. The city is the house where Trilogia 2.0 electric bikes easily move in traffic and busy roads. Easy to use, the e-bikes of **Trilogia 2.0** line are unique in their style.



sicura  
MAN





## TRILOGIA 2.0 SICURA WITH ANTI-THEFT SYSTEM EASY LOCK!

This electric bicycle offers the perfect combination of functionality, speed and comfort required by urban style.

Leaving your home, well-dressed for a business meeting at your office in the town centre and without getting stuck in rush hour traffic - perfectly preserving the aspect with which you had left home - has now become a reality.

Thanks to **Trilogia sicura**, there is no possibility to feel tired, to make efforts and consequently to sweat. Moreover, it is impossible to get dirty fat, thanks to the **shaft drive** transmission. Suspension front fork and tyres are the features that give the bicycle a further plus for the best comfort.

From today, **Trilogia sicura** is available in the versions **man** & **unisex**.



Suspension front fork



*Easy lock* anti-theft system, with clamp cable inserted in the seat tube



*Sicura's* rack is aligned with the riding position. It is possible to place a children seat on the rack, realized according to safety regulations concerning kids

**TODAY ALSO  
AVAILABLE IN  
MAN VERSION!**

### Technical features

Model	man/unisex
Transmission	shaft drive
Colour	titanium
Frame	Hydroformed aluminium 6061
Speed limit	25 km/h
Wheels/tyres	26" x 1.5"
Motor capacity/torque	250W/19Nm Brushless 36V
PAS	12-magnets pedalling sensor, integrated
Weight excluding battery	22.4 kg
Battery	removable Lithium-Ion 36V with <b>Samsung cells</b>
Brakes	front & rear V brake
Saddle	two-coloured
Front fork	suspended
Lights	front & rear battery LED Spanninga
Gear	embedded Shimano Nexus 3 - speed gear
Standard accessories	multifunction control unit; <i>soft start</i> function; anti-theft device <i>easy lock</i>
Optional accessories	rear bags

### Selectable speeds

Batteries	SHORT	LONG
Ah - V	7.8Ah - 36V	10.4Ah - 36V
Weight	1.9 kg	2.3 kg
Charging time 100%	4h	5h
Range	35-50 km	50-65 km

### 250W/19Nm Motor

**Trilogia sicura** with motor 36V & 19Nm torque faces also difficult upward slopes: it is able to overcome climbs up to 10%, offering a comfortable riding even on unsurfaced roads thanks to its front suspended fork.

poderosa  
UNISEX



## TRILOGIA 2.0 PODEROSA POWER, DETERMINATION AND COMFORT!

**Trilogia poderosa** is the bike for true pioneers of design-oriented sustainable mobility: fast, confident, sophisticated. It embodies power, speed and contemporary design in a sublime way.

The new conception of wide tread tyres 2.15" makes **Trilogia poderosa** the ideal partner for fast commuting people, sports touring riders looking for fun, and explorers of rural landscapes for trips outside the town. In addition to this, **Trilogia poderosa** also ensures excellent comfort, thanks to the front fork and to the suspension seat. Besides, the 250W motor and 20.2Nm torque gives an edge over pedalling, and also allows to face difficult slopes.



Suspension front fork



Cushioned seat



Wide tread tyres 2.15"



Strengthened kick-stand for the greatest stability



Brushless motor 250W/20.2Nm torque

### Technical features

Model	unisex
Transmission	shaft drive
Colour	titanium
Frame	Hydroformed aluminium 6061
Speed limit	25 km/h
Wide tread wheels/tyres	26" x 2.15"
Motor capacity/torque	250W/20,2Nm Brushless 36V
PAS	12-magnets pedalling sensor, integrated
Weight excluding battery	22.9 kg
Battery	removable Lithium-Ion 36V with Samsung cells
Brakes	front & rear V brake
Saddle	two-coloured, cushioned
Front fork	suspended
Lights	front & rear battery LED Spanninga
Gear	embedded Shimano Nexus 3 - speed gear
Standard accessories	multifunction control unit; <i>soft start</i> function
Optional accessories	rear bags

### Extra large tyres

**Trilogia poderosa** has extra large tyres 2.15", with progressive deformation, which absorb efficaciously the vibrations of the uneven paving of old town centres without excessively increasing the rolling resistance. In this way, the stability and the driving control are increased and more safety is provided in case of tramlines.

### Selectable speeds

Batteries	SHORT	LONG
Ah - V	7.8Ah - 36V	10.4Ah - 36V
Weight	1.9 kg	2.3 kg
Charging time 100%	4h	5h
Range	35-45 km	45-60 km







## Pack and go Line

Have you ever dreamt to bring with you, everywhere, an electric bicycle? In the city as well as on holiday, in the car, on the tube or train, and then get off and reach your favourite destination by pedalling? Today, your dream has come true. Thanks to E-Bit, an electric bicycle that can be replaced anywhere.

Also in a corner of the bar where you drink your aperitif, while you are waiting for an important meeting, or under the umbrella during your summer holidays.

E-Bit is Wayel's pack and go bicycle. It can be folded in 3 easy moves, and just as quickly it can be replaced in the useful trolley supplied. It is ideal for those who love boating and moving about on the piers of Yachting Clubs. E-Bit combines the plus of being folded to the assisted pedal technology: it's the top of urban movability. A multiplied freedom of movement. The value of a Wayel foldable electric bicycle resides in all this, permitting to the customers to choose the battery among 3 different capacities, and thus determining the range according to their route needs.

E-Bit is available in S release with 16" wheels and H (*Holiday*) release with 18" wheels and Shimano Nexus 3M.

# E-BITH *Holiday*

UNISEX



## E-BIT H. PACK AND GO

E-Bit is available in *Holiday* version. It has wheels 18", with tyres suitable for bumpy roads. **E-Bit Holiday** includes all technological innovations of Wayel house: 36V batteries are Lithium-Ion and equipped with **Samsung cells**, thus ensuring a higher quality and safety. Batteries are available in 2 different capacities, that can be freely selected according to the route needs. The gear is 3-speed Shimano Nexus embedded, for shifting gears also when in stationary position. The 3 assistance levels – selectable by computer on board – allow to manage the power supplying of motor in the best way, while the pedalling is always very light. **E-Bit Holiday**, thanks to its versatile front motor 250W in combination with the **wheels 18"**, is able to face medium distances covered. The implementation of the new 3-speed Shimano Nexus **integrated gearbox** allows to overcome with no problem even the most challenging climbs, and to shift gear even at a stationary position.



- 1 Strong and stable frame
- 2 Multifunction control unit
- 3 Lightweight, it is easily foldable
- 4 Cushioned seat holder
- 5 Belt drive transmission; 3-speed Shimano Nexus gear
- 6 Useful foldable soft bag supplied in standard equipment
- 7 Tyres: 18" x 2.00" (wide tread tyres)

### Technical features

Model	unisex
Transmission	belt drive
Colour	mat black/silver
Frame	aluminium
Speed limit	25 km/h
Wheels/tyres	18" x 2.00" (wide tread tyres)
Motor capacity/torque	250W/19Nm Brushless 36V
PAS	12-magnets pedalling sensor
Weight excluding battery	16.4 kg (with rear rack)
Battery	removable Lithium-Ion 36V with <b>Samsung cells</b>
Brakes	front & rear V brake
Saddle	suspended with LED lights
Front fork	fixed
Gear	embedded Shimano Nexus 3 - speed gear
Standard accessories	multifunction control unit; <i>soft start</i> function; foldable soft bag
Optional accessories	rear rack

**NEW**

### Integrated gearbox Shimano Nexus 3M

Shimano Nexus gearbox 3-speed hub, for shifting gear even at a stationary position. From the multifunction control unit, by holding down the special button, **soft start** device is activated: the bike automatically starts from rest to 6 km/h.

### Selectable speeds

Batteries	SHORT	LONG
Ah - V	7.8Ah - 36V	10.4Ah - 36V
Weight	1.9 kg	2.3 kg
Charging time 100%	4h	5h
Range	35-45 km	45-60 km

# E-BIT S

UNISEX

*From today, also  
in the version 36V:  
more determination  
to motor!*



☐ White



☒ Satin blue



☐ Mat black



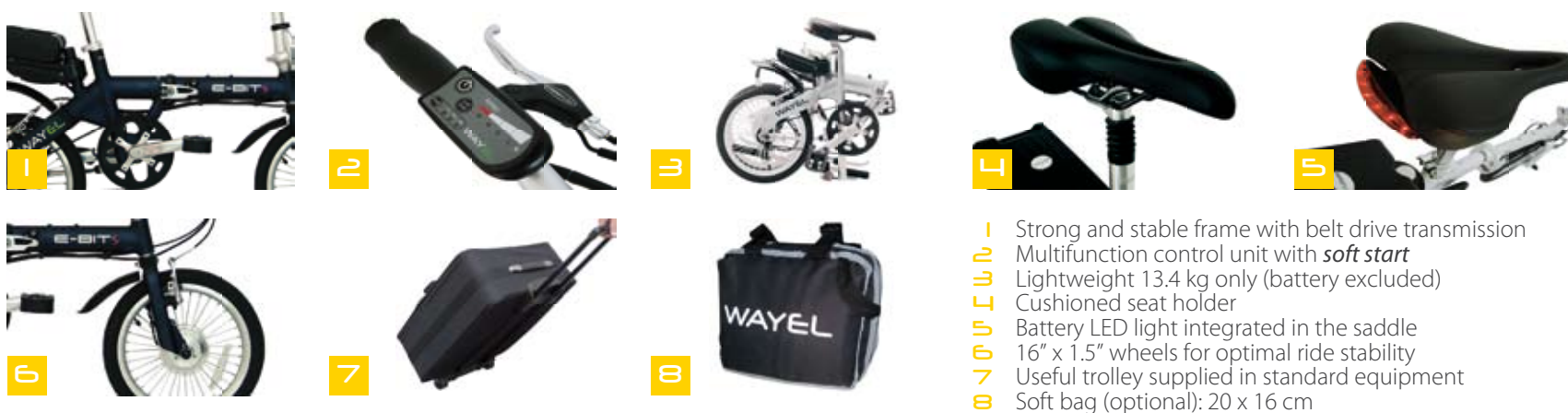
☐ Gold





## E-BIT S. THE INTERMODAL FOLDABLE BIKE: THE IDEAL CHOICE FOR SHORT AND MIDDLE TRIPS

E-Bit S, the Wayel testimonial of the intermodal segment, is today totally renewed in comfort, electronics and customization. **The new version 36V** gives more determination to the motor and larger range of distance covered. The cushioned seat gives a pleasant ride even on the paved streets of old town centres. In just 30" and three moves (four if pedals are folded) **E-Bit S** is reduced to a minimum space occupied: these operations are made even more easy and clean thanks to the belt drive transmission. **Soft start** button automatically activates the start from a stationary position to 6 km/h. Lightweight and foldable, in the city as well as on holiday, it is the ideal choice for little and medium trips. Replaced in its easy trolley provided, you can carry it to your workplace, keeping it in the corner of the office, in the back of a store and, at home, you can leave it in a corner of the dining room, in the bedroom or in the closet.



- 1 Strong and stable frame with belt drive transmission
- 2 Multifunction control unit with **soft start**
- 3 Lightweight 13.4 kg only (battery excluded)
- 4 Cushioned seat holder
- 5 Battery LED light integrated in the saddle
- 6 16" x 1.5" wheels for optimal ride stability
- 7 Useful trolley supplied in standard equipment
- 8 Soft bag (optional): 20 x 16 cm

### Technical features

Model	unisex
Transmission	belt drive
Colour	white/satin blue/mat black/gold
Frame	aluminium
Speed limit	20 km/h
Wheels/tyres	16" x 1.5"
Motor capacity/torque	250W Brushless - 15Nm 24V/18Nm 36V
PAS	7-magnets pedalling sensor
Weight excluding battery	13.4 kg
Battery	removable Lithium-Ion 24V/36V with <b>Samsung cells</b>
Brakes	front & rear V brake
Saddle	suspended with LED lights
Front fork	fixed
Standard accessories	multifunction control unit; <i>soft start</i> function; trolley bag
Optional accessories	foldable soft bag

### Selectable speeds

#### Version 24V

Batteries	SMALL PLUS	MEDIUM
Ah - V	8.8Ah - 24V	13.2Ah - 24V
Type	Li-Ion	Li-Ion
Weight	1.85 kg	2.5 kg
Charging time 100%	4/5 h ÷ 6h	5/6 h ÷ 7h
Range	30-45 km	45-60 km

#### Version 36V

**New**

Batteries	SHORT	LONG
Ah - V	7.8Ah - 36V	10.4Ah - 36V
Weight	1.9 kg	2.3 kg
Charging time 100%	4h	5h
Range	35-45 km	45-60 km





## Classic Line

### Classic Line, the reliability of experience.

A line that becomes a classic that you can always make reference to.

Classic is the starting line of Wayel's activity on electric movability. It is the line of electric bicycles that saw the fulfilment of a dream, the pursuit of a goal. All the initial efforts to combine the design with the functionality and handiness are converged to these bicycles, that still today represent a starting point for those who desire to approach the world of the electric bicycles.

*Trilogia* belongs to Classic Line with the models *speedy* and *soft street*.

From today, *OldTown* is presented in the **Rent** version: the city model, realized to face in the best possible way the uneven paving of old town centres, is available for rent in our stores with anti-theft system and handy rear basket, both standard supplied.

*SUV* is the bicycle for urban shopping in limited traffic areas, and represents perfectly the Utility segment of Wayel. *SUV* is particularly suitable for going out to the city centre, with the possibility to carry objects too. In fact, the driving position has been designed so that you can bring small loads with you, without compromising the bike's stability.



soft street

UNISEX



speedy

■ ■ red/black



■ ■ titanium pearl/black



speedy

UNISEX



soft street

■ ■ titanium pearl/black



## TRILOGIA SPEEDY & SOFT STREET. FROM URBAN CHIC TO OFF ROAD: THE LIGHT-HEARTEDNESS OF PEDALLING

Trilogia is a complete line of electric bicycles with shaft drive transmission, offering a high quality standard and an excellent value for money. Steady and responsive, the bikes of Wayel house include in a single line the appropriate response to different needs of route.

**Trilogia speedy** is the electric bike suitable for typically city use, with asphalt and flat roads, flyovers and traffic lights. It reaches 30 km of actual range with 8.8Ah & 24V battery.

**Trilogia soft street:** powerful motor and a frame to ride with maximum comfort thanks to the triple cushioning: fork, seat and big size tyres. Besides the riding comfort, more safety is provided in case of tramlines.



Shaft drive transmission



Front & rear battery LEDs



Shimano Nexus gear 3-speed hub, to shift gears even at stationary position



Carrier integrated in the aluminium frame



Cushioned seat holder (Soft Street model)

### Technical features

Model	Soft street	Speedy
Transmission	shaft drive	
Colour	pearl titanium/black	red/black; pearl titanium/black
Frame	Hydroformed aluminium 6061	
Speed limit	25 km/h	
Wheels/tyres	26" x 1.95" white, wide tread	26" x 1.5"
Motor capacity/torque	250W/19Nm Brushless 24V	180W/15Nm Brushless 24V
PAS	12-magnets pedalling sensor, integrated	
Weight excluding battery	22.9 kg	22.1 kg
Battery	removable Lithium-Ion 24V with Samsung cells	
Brakes	front & rear V brake	
Saddle	two-coloured, cushioned	two-coloured
Front fork	suspended	fixed
Lights	front & rear battery LED	
Gear	embedded Shimano Nexus 3 - speed gear	
Standard accessories	multifunction control unit; <i>soft start</i> function	
Optional accessories	rear bags	

### Soft start function

It can be activated from the multifunction control unit, by keeping pressed **soft start** button: the bike automatically starts from rest to 6 km/h. This function is very useful when moving off at traffic lights and also when wheeling the bicycle by hand, especially up steep slopes of garages and in pedestrian only areas.

### Selectable speeds

Batteries	SMALL PLUS	MEDIUM
Ah - V	8.8Ah - 24V	13.2Ah - 24V
Type	Li-Ion	Li-Ion
Weight	1.85 kg	2.5 kg
Charging time 100%	4/5 h ÷ 6h	5/6 h ÷ 7h
<b>Range</b>		
<i>SOFT STREET</i>	25-40 km	40-55 km
<i>SPEEDY</i>	30-45 km	45-60 km

UNISEX



### SAFER WITH ANTI-THEFT ARC SYSTEM

The anti-theft arc system is a classic device concerning the bike's safety. The solid materials, with no moving parts but the locking mechanism ensure the total impossibility to steal the bike from your parking place. Abus anti-theft arc is standard supplied.



### HANDY REAR BASKET

There is nothing better than freedom of movement without taking everything over your shoulder or on your back: here is an easy basket that can well help you. Located on the rear side of the bike and standard supplied, the basket of **OldTown Rent** is large and made of durable metal. Screws and brackets for installation are included.



## THE BIKE HAVING A QUICK AND SOFT RIDE. IDEAL FOR USE ON PAVED SURFACES OF OLD TOWN CENTRES

From today, **OldTown** appears in **Rent** version: comfortable, stable on uneven paving and flying at traffic lights, the version of **OldTown** born for rent is enriched of a safe Abus anti-theft arc and easy rear basket, both standard supplied. Suspended fork and cushioned seat, extra large tyres 1.95" are **must** that make **OldTown** an e-bike able to face with fluidity and ease the roughness of streets of old town centres.

**OldTown** is quick and suitable for those who are looking for an alternative vehicle for urban daily mobility. It can easily overcome slopes and city flyovers. Strong but lightweight: only 21.9 kg. Handy, with a low down tube, its reactivity in sudden changes of direction is astonishing.



Saddle with cushioned seat holder



Suspended front fork: safety and ride control



1.95" wide tread tyres, to absorb efficaciously the vibrations due to the irregularity of streets



Multifunction control unit: **soft start** function, 3 assistance levels



250W Brushless motor / 18Nm torque

### Technical features

Version	rent
Model	unisex
Transmission	belt drive
Colour	silver
Frame	steel
Speed limit	25 km/h
Wide tread wheels/tyres	26" - white / Big tyre 1.95"
Motor capacity/torque	250W/18Nm Brushless 24V
PAS	7-magnets pedalling sensor
Weight excluding battery	21.9 kg
Battery	removable Lithium-Ion 24V with <b>Samsung cells</b> , and Lithium-Polymer
Brakes	V brake
Saddle	special comfort, black colour, cushioned
Front fork	cushioned
Lights	front/rear: light bulb
Standard accessories	multifunction control unit; <i>soft start</i> device; rack
Optional accessories	rear bags

### A range studied for rent

An electric bike as **OldTown**, ideal for paving of old town centres, is surely the most suitable model for rent. Renewed in **Rent** version, today **OldTown** appears equipped with LARGE batteries - 24Ah & 24V -, and able to ensure a range up to 100 km. More range, ease of riding – with low down tube – and comfort, make **OldTown Rent** the perfect electric bike for daily urban mobility.

### Selectable speeds

Batteries	SMALL PLUS	MEDIUM	LARGE
Ah - V	8.8Ah - 24V	13.2Ah - 24V	24Ah - 24V
Type	Li-Ion	Li-Ion	Li-Po
Weight	1.85 kg	2.5 kg	5 kg
Charging time 100%	4/5 h ÷ 6h	5/6 h ÷ 7h	8 h ÷ 11/12h
Range	25-40 km	40-55 km	80-110 km

*From today, also in the version 36V: more determination to motor!*

UNISEX



## ELECTRIC BICYCLE FOR SHOPPING IN THE LIMITED TRAFFIC AREAS

**SUV** represents Wayel's Utility segment: designed not only for women, **SUV** solves the problem of the family sized shopping in the limited traffic areas, or it is suitable for those who prefer to leave as much as possible the car in the garage. The **SUV** has been designed to easily transport heavy and huge loads, without compromising stability and easy riding. The total load capacity reaches 35 kg, using the rear rack. The constant attention to barycentres and weight distribution enable an excellent ride control: always light, always safe.

The new version **36V** gives more determination to motor and a larger range of distance covered. The handlebar is high and large, and together with the low down tube, ensure ease of handling and comfortable and ergonomic position.

The shaft drive transmission is maintenance-free and prevents dirt and stains. Thanks to Shimano Nexus 3-speed gear, little urban slopes can be easily climbed.



Multifunction control unit:  
**soft start** function, 3  
assistance levels



Shimano Nexus gear 3-speed  
hub, to shift gears even at  
stationary position



Strengthened kick-stand:  
highest steadiness in rest, also  
with overloads



The ergonomic handlebar,  
the comfortable seat and  
the low stepover provide an  
ergonomic and stable ride



Capacity 37 litres; able to  
charge up to 6 bottles of  
water and a full shopping  
bag

### Technical features

Model	unisex
Transmission	shaft drive
Colour	satin black
Frame	steel
Speed limit	25 km/h
Wide tread wheels/tyres	front 24" x 1.5" - rear 26" x 1.5"
Motor capacity/torque	Brushless - 180W/18Nm 24V 250W/19Nm 36V
PAS	7-magnets pedalling sensor
Weight excluding battery	24 kg
Battery	removable Lithium-Ion 24V/36V with <b>Samsung cells</b> , and Lithium-Polymer
Brakes	V brake
Saddle	comfort
Front fork	fixed
Lights	front/rear: light bulb
Gear	embedded Shimano Nexus 3 - speed gear
Standard accessories	multifunction control unit; <b>soft start</b> device; rack; large front basket; extra strong kick-stand
Optional accessories	rear bags

### Selectable speeds

#### Version 24V

Batteries	SMALL PLUS	MEDIUM	LARGE
Ah - V	8.8Ah - 24V	13.2Ah - 24V	24Ah - 24V
Type	Li-Ion	Li-Ion	Li-Po
Weight	1.85 kg	2.5 kg	5 kg
Charging time 100%	4/5 h ÷ 6h	5/6 h ÷ 7h	8 h ÷ 11/12h
Range	25-40 km	40-55 km	80-110 km

#### Version 36V



Batteries	SHORT	LONG
Ah - V	7.8Ah - 36V	10.4Ah - 36V
Weight	1.9 kg	2.3 kg
Charging time 100%	4h	5h
Range	35-45 km	45-60 km



**SOLINGO**  
SOLAR POWER



**MADE  
IN ITALY**

## Innovative, eco-friendly, with more than 115 km range and Made in Italy.

### **It is a Cityrunner, its name is Solingo.**

The sun is a source of natural energy, inexhaustible and totally free. The exploitation of this resource in optimal way is the basis of the design concept of Solingo, the first Wayel Cityrunner: an innovative vehicle for city use, safe and environmentally friendly.

Solingo represents the future of city mobility, as it allows you to move quickly, safely and easily, respecting the environment and helping to improve the quality of everybody life.

Solingo starts with solar battery, being able to reach a speed of 35 km/h by main battery. Recharging the battery of Solingo cityrunner is as easy as recharging a computer: you only need to connect it to a power socket by a power supply cord.

Travelling by the system adopted by Solingo allows an exceptional reduction of costs: it is estimated that the energy cost for 100 km is lower than 0.50 €. For the first 5 years, you do not have to pay the tax road, and you can benefit from the government contributions for low-emission vehicles. Finally, as Solingo is totally electric, can access to LTZ areas of the old town centres.



# SOLINGO

## SOLAR POWER

### 1 Photovoltaic Panel

The photovoltaic panel gets energy from the sun at zero cost, recharging the reserve battery on average by 8% per day.

### 2 Battery Case

The battery case is able to house up to two removable Lithium batteries of different capacity, selectable by the User, in order to obtain the desired operating range.

### 3 Twin Motors

The two motors of 250W and 500W (positioned on the front and rear wheels) normally run alternatively, but are also able to operate simultaneously – on the rider's demand - in case of steep slopes. The first motor, powered by the solar energy built up in the reserve battery, starts Solingo, then the second motor increases its speed up to 35 km/h.

### 4 Lights

Front & rear lights can be operated from the handlebar; they are powered by the battery.

### 5 Frame

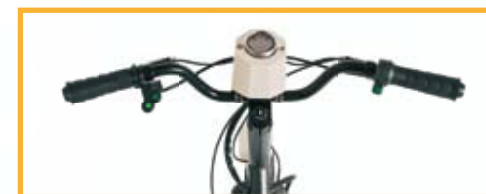
Aluminium 6061 frame, lightweight (only 35.4 kg battery excluded).

### 6 Brakes

Front & rear disc brakes.

### 7 Cushioning

Suspension front fork.



### Booster

In case of challenging slopes, from the handlebar you can operate the booster to use both engines at the same time.

### LCD Display

LCD Display with kilometer indicator and battery charge indicator.



### Top Case

The top case houses the Lithium solar charge battery (removable), used both for starting Solingo and as a reserve charge in case the primary batteries are exhausted.



## ENERGY SAVING AND SUSTAINABILITY: THESE ARE ALL THE ADVANTAGES OF SOLINGO

### AN INEXHAUSTIBLE SOURCE OF ENERGY: THE SUN

The little operating range and the risk of "being stranded" are the main problems of electric mobility. **Solingo** solves both problems: it overcomes the limit of 115 km - getting the record of operating range among the *Cityrunners* on the market - and is provided with a reserve battery constantly powered by solar energy.

### SIMPLE AND SAFE

The operation of Solingo is very simple: the solar battery is used to start the vehicle, by the front motor, then Solingo is powered by the rear motor through the main battery pack, that allows to reach 35 km/h. In the event that the main battery is exhausted, Solingo enters the Solar Reserve Mode. In Solar Mode, only the solar battery is used, and the speed is reduced to allow you to always get to your destination.

### YOU CAN SELECT THE RANGE!

Each person has different needs of mobility. For this reason Solingo can be configured in different versions depending on your desired operating range: the capacity of the battery pack is always selected by the User.

### UPWARD SLOPES? THERE IS THE BOOSTER!

The booster is a function which can be operated by pressing and holding a button on the handlebar. This function allows to use the front and rear motors simultaneously, and is useful in upward slopes or speedy restarts.

### GOODBY "DEAR PETROL"

The energy costs of Solingo are unrivalled: less than **0.50 Euro per 100 km**. Since Solingo is a totally electric vehicle, it produces no emissions harmful to the environment. For this reason, in many cities it has additional incentives and benefits, such as access to the LTZ of old town centres. The recharge is fast and can also be carried out comfortably at night-time, by connecting the power supplier to a socket, like a PC. The lightweight and removable batteries do not require to charge Solingo in the garage.

## Technical features

Model	Solingo 960	Solingo 1130	Solingo 1590	Solingo 1760	Solingo 1930
Frame	aluminium 6061				
Weight battery excluded	35.4 kg				
Weight battery	4.5 kg	5.4 kg	9 kg	9.9 kg	10.8 kg
Weight solar battery	2.6 kg				
Total weight	42.5 kg	43.4 kg	47 kg	47.9 kg	48.8 kg
Lithium Ion Solar Battery	330 Wh				
Lithium Ion Main Battery Pack	ONE: 630 Wh	ONE: 800 Wh	TWO: 1260 Wh	TWO: 1430 Wh	TWO: 1600 Wh
Recharge cycles <sup>4</sup>	500	500	500	500	500
Brakes	mechanical disc				
Front motor	250 W 25.9V				
Rear motor	500 W 37V				
Daily photovoltaic recharge of solar battery <sup>1</sup>	about 8%				
Recharging time of solar battery	about 7h				
Recharging time of main batteries	about 6h	about 8h	about 6h	about 6-8h	about 8h
Display	LCD, kilometer indicator with charge indicator				
Booster	yes				
Max speed	35 km/h	35 km/h	35 km/h	35 km/h	35 km/h
Max climbing capacity <sup>2</sup>	15% (with booster)	15% (with booster)	15% (with booster)	15% (with booster)	15% (with booster)
Battery pack range	30-35 km	35-45 km	60-70 km	70-80 km	80-90 km
Total range (battery pack + solar battery) <sup>3</sup>	50-60 km	55-70 km	80-95 km	90-105 km	100-115 km
<b>Solar reserve mode</b>					
Max speed	25 km/h				
Max climbing capacity <sup>2</sup>	5%				
Solar battery range fully charged <sup>3</sup>	20-25 km				

1. Recharging capacity estimated on annual average. The weather and the season considerably affect the daily recharging capacity. 2. Value corresponding to max. slope in stationary position to which the vehicle does not move backwards. 3. Test conditions: rider weight 75 kg, external temperature 23° C, town level road of 15.3 km with a rise of 60 m, 4 flyovers with average gradient of 5% and 19 stops at traffic lights. In the event of a temperature of 0° C, the range is reduced of 20% compared to the declared values. 4. The battery capacity is progressive: after 1000 cycles of full recharge, it is equal to 80% of the original capacity.

# Lithium batteries: lightweight, handy and quickly removable

## Wayel's batteries

The battery is what gives energy to the motor, and represents the most expensive component of an electric bike. A quality battery lasts longer over time, and needs to be replaced less frequently.

For this reason, Wayel has focused its choice on Lithium Polymer and Lithium Ion batteries, relying in turn on technology and experience of the best manufacturers in the market, as **Samsung** and **Sony**.

Lithium batteries are much smaller and lighter than other batteries present on the market.

They do not suffer the notorious memory effect, so it is not necessary to wait until they are almost fully discharged, for recharging them. Charging times are 4 to 7 hours. If the battery is stored correctly, **after 500 cycles of charge and discharge**, it ensures a residual capacity equal to 87% of nominal capacity. All Wayel batteries guarantee safety, as they are in accordance with the rules UN38.3. Just because they are lightweight and compact, all Wayel batteries can be easily taken along with you, thereby reducing the risk of theft.

All the cases of Wayel batteries are characterized by a packing design improved in appearance and size, for minimizing the weight and giving them the most appropriate shape for use.

## Some of the tests prescribed by the UN38.3 standard include:

### 38.3.4.1 - Test 1: Altitude simulation

This test simulates air transport under low-pressure conditions. The batteries are tested for at least 6 hours under temperature conditions of 20° C + -5° C and pressure conditions of 0.116 bar or less.

### 38.3.4.2 - Test 2: Thermal test

This test simulates rapid and extreme temperature changes in order to verify the integrity of the electrical circuits, the connection and the battery itself. The batteries are tested for at least 6 hours under temperature conditions of 75° C + -2° C and within a maximum time of 30 min. The test is repeated under temperature conditions of -40° C + -2° C. The test is repeated 10 times.

### 38.3.4.3 - Test 3: Vibration test

This test simulates various types of typical vibrations during transport. The battery is subjected to a continuous vibration, ranging from 7Hz to 200Hz, for 15 minutes. The cycle is repeated 12 times, for a total of 3 hours.

### 38.3.4.4 - Test 4: Shock test

This test simulates possible impacts during transport. The battery is subjected to an acceleration of 150 g, with a duration of 6 ms.

### 38.3.4.5 - Test 5: External short circuit test

This test simulates an external short circuit. The battery is subjected to a short circuit condition with a total external resistance of less than 0.1 ohm at 55° C for one hour. After having passed the test, the battery is observed for an additional six hours.

### 38.3.4.6 - Test 6: Impact test

This test simulates an impact with a given mass. The battery is subjected to an impact against a 15.8 mm diameter bar with a weight of 9.1 kg. The bar is placed at a height of 61 cm above the battery and is dropped onto its centre.

### 38.3.4.7 - Test 7: Overcharge test

This test evaluates the battery's ability to withstand an overcharge condition. The battery is charged using a current equal to twice the maximum continuous charge current indicated by the Manufacturer.

Wayel is registered with the National Registry Office of Batteries & Accumulators, and with ECOPEP Association for the collection and disposal of the exhausted batteries.



All range declared in this catalogue refer to results achieved by tests carried out at the following conditions: fully charged battery at the beginning of its life cycle, external temperature of 25° C, flat road surface, rider weight 75 kg, medium selected assistance level, typical mixed urban path, normal traffic conditions, no wind, high-speed gear.

**Note.** The indicated ranges may substantially change in the following cases: 1. path characterized by hard or long upward slopes. 2. uneven road surface; gravel path. 3. headwind. 4. rider weight. 5. external temperature.

As a result of the ongoing technological evolution of products, we reserve the right to change the technical specifications at any time and without notice.







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