



# MIOT

The engine  
of passion-e

**OLEDS** ELECTRIC DRIVE SYSTEMS  
a **WOLONG** company



It took me just 200 metres to realise that I could make my dream come true. Marco Manuzzi

仅仅200米我就意识到我的梦想能够实现。Marco Manuzzi

**YOUR  
PERFORMANCE  
OUR MISSION**

**你的性能  
是我们的使命**





**OLEDS** ELECTRIC DRIVE SYSTEMS<sup>®</sup>  
a **WOLONG** company

We started from your and our own passion for e-bikes, races and fun, and we combined it with the experience and expertise of electric motor experts. Competence and motivation, technique and commitment are the key aspects that we have always valued, and we skilfully brought them together. We didn't just want to make an electric motor. We want to be the best.

我们将对助力自行车的激情，竞技及乐趣和在电机领域的经验及专业知识结合在了一起。

能力和动力，技术和承诺是我们一直重视的关键方面，我们很巧妙地将他们组合到了一起。

我们不仅仅是生产电机，我们想成为最好的。





# MOTORVALLEY

## 汽车硅谷

# WHERE THE ENGINE ARE

## 引擎所在地

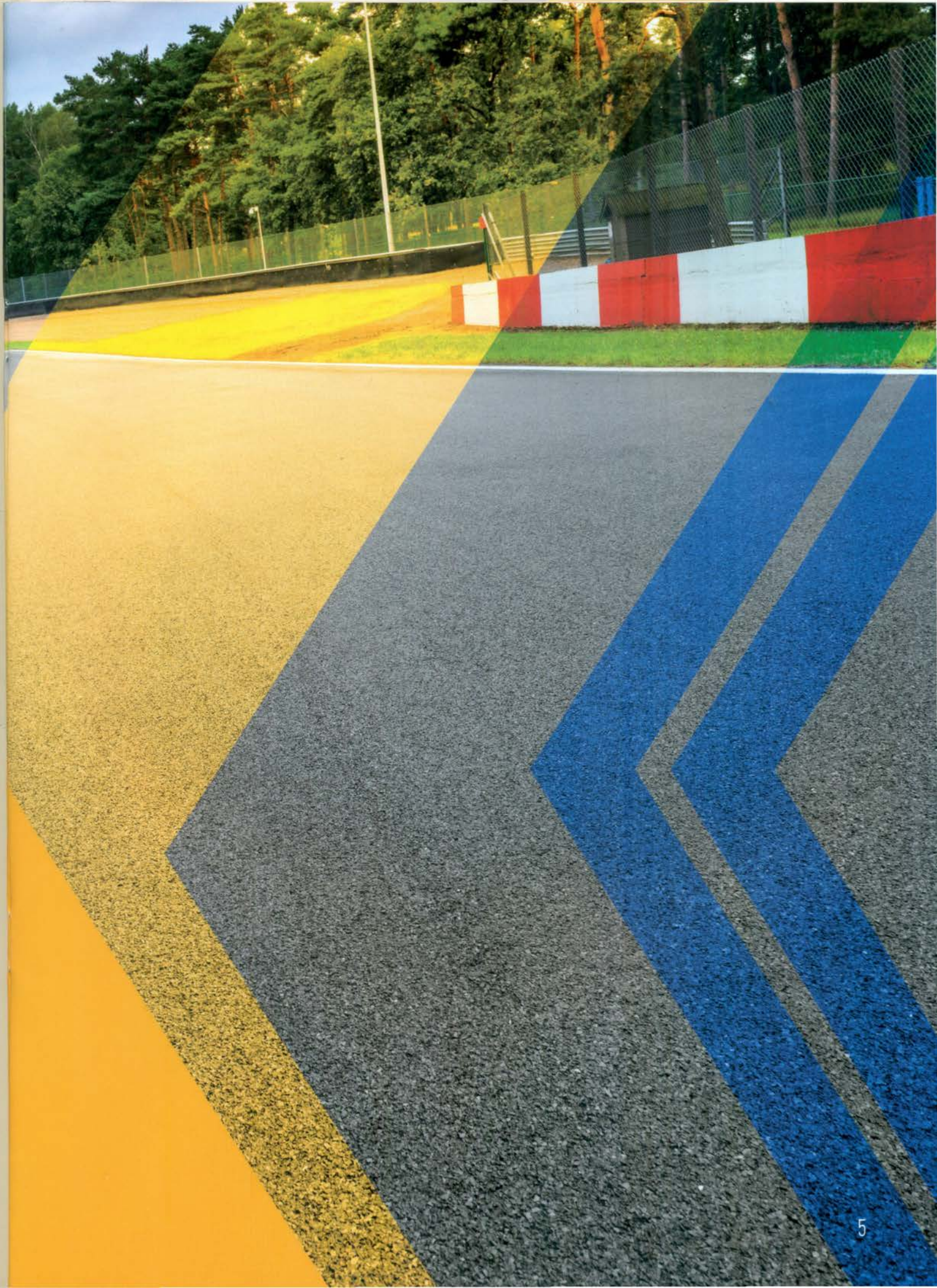
Emilia Romagna is a land of motor legends.

It's no coincidence if we were born here. A fierce passion for motors, racing and competition has always been running through our veins. The home of the world's most competitive, luxurious brands, the old Via Emilia that goes from Piacenza to Rimini includes test slopes, racing circuits, museums and incredible private car collections. Whether they are cars or motorcycles, the creations developed here make heads turn all over the world. Soaking up this atmosphere and spirit every day, we could not help but be inspired and try to imitate these legends.

Emilia Romagna是一片拥有汽车传奇的土地。

我们在这里诞生并不是偶然的。对汽车、赛车和比赛的强烈热情一直贯穿于我们的血脉之中。这个古老的Via Emilia从Piacenza到Rimini是全球最具有竞争力，最豪华品牌的故乡，它拥有测试用的斜坡，赛车场，博物馆和难以置信的私人汽车收藏馆。无论是汽车还是摩托车，这里开发的产品使全世界的目光都转向了这里。我们每天都沉浸在这种气氛和精神之中，情不自禁地开始效仿这些传说。







# ONE MOTOR DOUBLE EXPERIENCE 一个电机两种体验

We were the first. The first to do this in Italy.

One motor, one technology, two solutions.

We have integrated two systems, our time-tested P.A.S. and our latest addition, Torque. This enabled us to combine two e-bike concepts and two lifestyles into one motor: city bikes to ride on flat ground, and mountain bikes for higher levels of adventure and greater power. Our goal was not and is not to provide a technological product, but rather a brand-new experience with your e-bike.

我们是意大利第一个生产该产品的企业。

一个电机，一种技术，两个解决方案。

我们结合了两个系统，经过时间考验的P.A.S.和最新增加的，扭矩。这使得我们将两种助力自行车的概念和两种生活方式结合到一个电机里：城市自行车用于平地骑行，山地自行车用于更高一级的冒险和更大的动力。我们的目标不是提供一个技术产品，而是给你提供一个全新的骑行体验。

# TORQUE PAS

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ELECTRIC DRIVE SYSTEMS  
a WOLONG company



MOT



# OBSSESSED WITH PERFECTION

## 痴迷于完美

Our focus was on perfection and continuous improvement at each stage of the design process. Our biggest challenge was not to be the first, but to provide an outstanding product. We have gathered a team of Italian experts, engineers and sports enthusiasts who have worked in the e-bike world since 2008. We started from scratch in terms of both mechanics and electronics. Attention to detail was our obsession; we painstakingly took care of each internal component of the rotor torque, as well as to every welded part, and we tested them, mile after mile.

我们专注于完美和每一个设计过程的提升。我们最大的挑战不是成为第一，而是如何提供优秀的产品。我们的团队由意大利专家，工程师和体育爱好者组成，并且从2008年开始就从事助力自行车领域的工作。我们从机械和电子两方面着手，专注于细节；我们精心地处理转子力矩的每个内部部件和每一个焊接零部件，并对它们进行不断的测试。



A close-up photograph of a car's front wheel. The wheel has a dark grey, multi-spoke design. A blue stripe runs along the top edge of the wheel. In the foreground, a dark grey hubcap is visible, featuring the word "ULEDS" in a stylized font. The "U" is blue, and the "LED" part is orange, while "S" is blue. Below the hubcap, a portion of a brake disc is visible, with some technical markings. The background is dark and out of focus.

ULEDS

IMICT









# IMPROVEMENT EXPERTS 改进专家

## OPEN SOURCE 开放源代码

At OliEds, we developed an open source system, which is more suitable for radical changes, to meet the needs of e-bike manufacturers. We want to give users the opportunity to easily replace the control unit, batteries and motors.

在欧力EDS，我们开发了开放源代码系统，能根据助力自行车厂商的不同要求进行变化。我们想要给用户机会能轻松的替换控制单元，电池和电机。

## CUSTOMISABLE 定制化

The M01 motor can be customised according to the user's requirements and specifications. We can easily make changes, not so much in terms of design, but especially in parameter management, which is what most affects the features of your e-bike. We can provide dedicated mapping, aimed at energy saving and efficiency, or provide ultimate power to those seeking outstanding performance.

M01电机可以根据客户的要求和规格进行定制。我们可以轻松地做一些改变，设计上变化不大，而是在参数管理上，因为这个最影响助力自行车的特征。我们可以提供专用的地图，旨在节省能量和提高效率，对于那些追求卓越性能的人可以提供最大的动力。

# IM01



# ELECTRIC DRIVE SYSTEMS

## 电驱动系统



**OLEDS**<sup>®</sup> ELECTRIC DRIVE SYSTEMS  
a **WOLONG** company





### DRIVE UNIT 驱动单元

A high torque and extremely smooth system combined with exceptionally silent operation make the M01 motor a top-of-the-range solution. From the very first pedal strokes, the torque is available and provides up to 120RPM for a surprisingly efficient, natural ride.

高扭矩，超流畅的系统以及超乎寻常的无声运行使得M01电机成为一个顶级的解决方案。

从第一次踩踏开始，扭矩便可提供最高120的转速，非常高效，给你非常自然的骑行体验。



### ENERGY PACK 能量包

The system uses advanced lithium-ion batteries for lower weight and reduced consumption. Every part of the M01 motor has been carefully selected for a perfect e-bike ride.

该系统采用先进的锂离子电池，降低了重量，减少了能耗。

为了实现完美的助力骑行，M01电机的每一个部分都是精挑细选。



### DISPLAY 显示器

A real on-board computer. Designed to provide real-time data about your route.

真正的车载电脑，能提供骑行的实时数据。

# M01





# DRIVE UNIT

## 驱动单元

**MOTOR UNIT**  
电机单元

**CENTRAL MOTOR**  
中置电机

**WEIGHT**  
重量  
3,9KG

**NOMINAL POWER**  
额定功率  
250W

**MAXIMUM TORQUE**  
最大扭矩  
80NM

**MAXIMUM CADENCE**  
最大转速  
120RPM

**MAX SPEED SUPPORT**  
最大速度支持  
MAX. 25KM/H

OLEDS

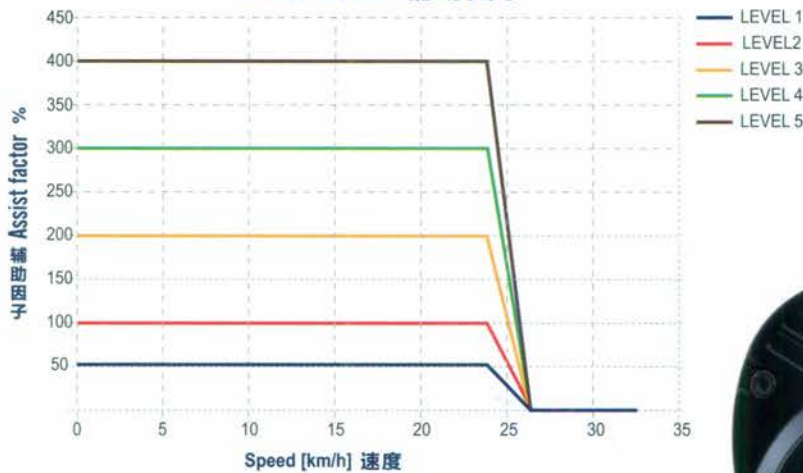
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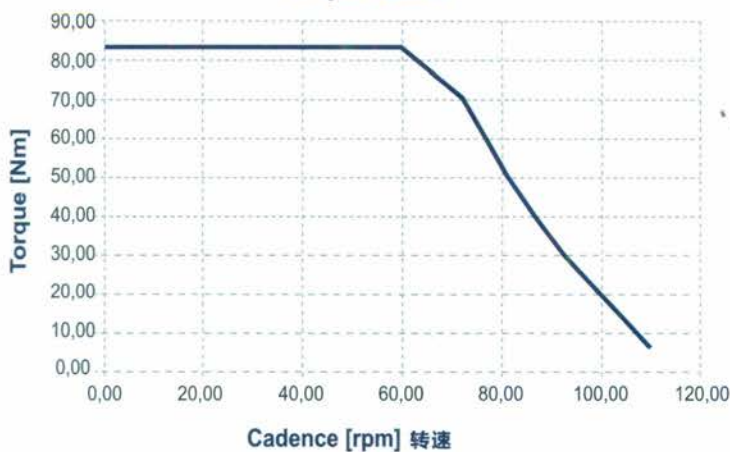
Powerful and reliable from the lowest speeds thanks to the torque that helps in the most difficult moments, M01 is quick and smooth. It supports pedalling as well as the cyclist's effort. It plays a part at different levels, from moderate to the most aggressive push, for sports tests.

由于扭矩，在最低转速时也很强大和可靠，M01既快速又平稳。它能帮助骑行者的踩踏，可分为不同的档位，从舒适到最大推力。

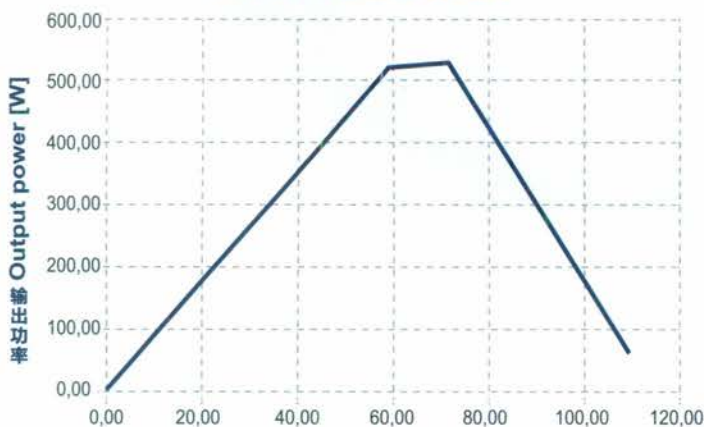
### Assist factor 辅助因子



### Torque 扭矩



### Output power 输出功率 36 V, measured at motor shaft 36V.电机输出轴处测量



The driving torque shows that the motor is designed to deliver a maximum thrust up to a cadence of 60 rpm, while maintaining a high motor output even at higher rotational speeds. The power of a motor is calculated by multiplying the torque by the angular rotational speed. As a result, as the cadence increases, the power increases to a peak point that allows cyclists to reach their maximum riding speed (which is however limited to 25 km/h as required by law).

从驱动扭矩表明，电机设计的最大转速是60rpm，即使在更高转速下保持电机的高输出。电机的功率是通过扭矩乘以角转速来计算的。所以，当转速增加时，电机功率达到峰值，骑行也达到最大速度（但是根据法律规定最大只能25km/h）。



# DISPLAY 显示器

Capable of adapting to different scenarios, from commuting to sports, the on-board computer displays various types of information. With the remote control located on the left side of the handlebars, you can easily ask for additional information.

能够适应不同的场景，从通勤到运动，车载电脑能显示各种信息。通过左侧把手的远程控制，骑行者可以轻松获取额外的信息。



# MIOT



## EASY 简单

The city mode is the easiest ever. It is geared for daily travel and allows cyclists to check temperature, lights and time. But above all, it provides information about the remaining charge, the support level, instantaneous speed and motor power.

城市模式是最简单的。它适合日常骑行，且骑行者可以检查温度，灯光和时间。此外，它也提供剩余电量，支持档位，瞬时速度和电机功率等信息。

## COMPACT 简洁

Briefly pressing a button will display many more data, which can be interesting if you are working out or want to test yourself.

You can get to know the distance and duration of your ride, cadence (i.e. pedal rotation) and the energy you have consumed.

简单的按下按钮会显示更多的数据，如果骑行者想要测试自己那么这些数据会很有意思。

骑行者可以了解骑行的距离和时间，转速（踏板的转速）和消耗的能量。

## ERGONOMIC 人体工程学

Designed for experts, this pro mode doesn't only provide information about the support level and instantaneous speed, but also about the rider's power output in Watt, motor power, total power (that is, motor power combined with the rider's power output) and average consumption in Wh/km. It's basically like having a personal trainer with you.

专为专家设计，这种模式不仅提供例如支持档位，瞬时速度等信息，还显示骑行者的输出功率，电机功率，总功率（电机功率加上骑行者功率）和平均能耗Wh/km，就像有个私人教练陪着你一样。

## 5 LEVEL E-MTB VERSION

### 5档 山地模式

#### LEVEL 0 = 0%

There is no help by the motor, all the cyclocomputer functions can be selected.

没有助力，但车载电脑的功能可以选择。

#### LEVEL 1 = 50%

Minimum but effective. At this level you can almost not feel the support.

最小档位，你几乎感受不到助力。

#### LEVEL 2 = 100%

Constant motor intervention, for greater autonomy.

助力有明显的增强。

#### LEVEL 3 = 200%

Fast in town and perfect off-road. Pedalling is helped by the motor continuous push.

适合城镇和越野的快速完美骑行，电机提供持续的助力。

#### LEVEL 4 = 300%

Suitable for a sports riding style, this support is addressed also to high frequencies.

适合运动骑行风格，高频的助力。

#### LEVEL 5 = 400%

Unquestionably fun and suitable for sports routes, the experience proves to be comfortable thanks to the power used.

毫无疑问地充满乐趣和适合运动线路，由于强大的动力，骑行经历非常舒适。

## 5 LEVEL E-CITY VERSION

### 5档 城市模式

#### LEVEL 0 = 0%

In this mode, the motor does not help pedalling while all the cyclocomputer functions are active.

没有助力，但车载电脑的功能可以选择。

#### LEVEL 1 = 100%

The pedalling support is minimal and almost undetectable. It helps the cyclist guaranteeing high autonomy.

几乎感受不到助力，骑行者可以自由支配。

#### LEVEL 2 = 200%

The motor offers constant pedalling support. This level represents a superb mix of autonomy and pedalling support, especially with daily travel.

助力持续增强，该档位是骑行和助力的完美混合，适合日常骑行。

#### LEVEL 3 = 300%

Vigorous pedalling support by the motor. In town, it is quick and reactive thanks to constant support.

电机提供有力的助力，迅速且有力，适合城镇的骑行。

#### LEVEL 4 = 400%

It is the ideal level for sports, energetic pedalling with high rhythms. It offers the maximum possible push both in and out of town.

该档位非常适合运动，踩踏很有动力。它能在城镇和户外提供最大的助力。

#### LEVEL 5 = PAS

This level allows using part of the motor power with no cyclist's effort, exploiting just the pedals' movement. When more power is required, just apply minimal strength on the pedals and you will have all the necessary push.

该档位允许使用电机的部分功率，骑行者不需出力，只要踏板的在动就可以。当需要更多动力时，骑行者轻轻地踩下踏板就能获得所需的助力。



# ENERGY PACK 能量包

The motor and display communicate with the battery to control incoming and outgoing energy flows, and save battery life right from the start.

The lithium technology withstands many charging cycles without compromising battery sensitivity.

电机和显示器由电池提供能量。

锂电池技术保证了循环的充电次数而不影响电池灵敏度。



MICIT



## LIGHTNESS & RANGE 轻便

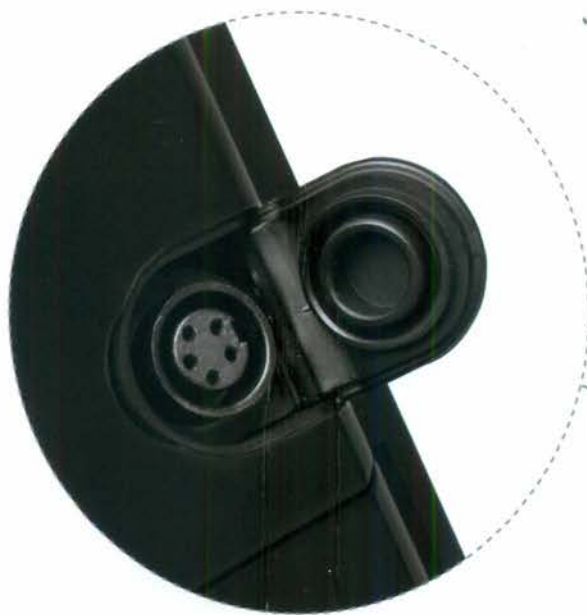
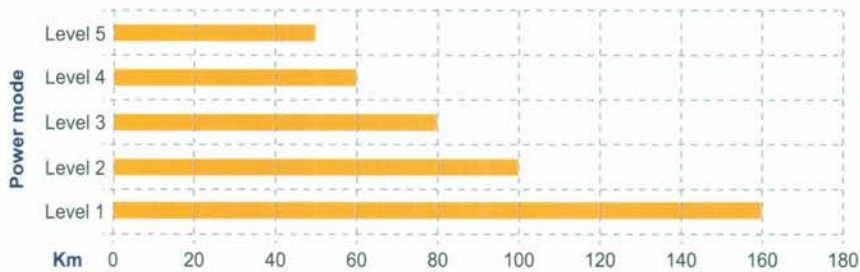
Lighter and faster. The lightweight construction does not affect the high capacity of the energy pack.

The autonomy shown in the table below is meant on flat ground, at a constant speed of 15km/h, with the bike in good condition and a rider weighing less than 70kg.

更轻更快。

轻便的结构毫不影响能量包的高容量。

下表显示了在平地以15km/h速度骑行时，骑行者重量低于70kg，能量包能提供的最大骑行距离。







®



OLIT®





# A BIG COMPANY FOR BIG IDEAS 大公司大想法

The 30 years' experience gained by OLI Spa in industry of electric motors and gear reducers has been our strength at all stages of design and testing. And now that M01 is in the market, OLI Spa is still at our side with more than 7 production sites worldwide and extensive vibration technology expertise. Their slogan reflects our own philosophy - WHEN YOU NEED IT, WHERE YOU NEED IT: fast delivery, at any time, anywhere in the world.

欧力在工业电机和减速机领域积累的30年的经验是我们在设计和测试的所有阶段的优势。

现在M01已经上市，欧力全球的7个生产基地和振动技术的专家就在我们身边。他们的口号反映了我们的理念—随时随地，如您所需：在全球任何地点，任何时间快速的交货。

