



Best electric mountain bikes 2024 – from lightweight eMTBs to enduro beasts

by Rebecca Bland Apr 16 2024

0 comments



From the bike park to the mountains, here's our pick of the best electric mountain bikes for all types of terrain

Electric mountain bikes are usually among the first to benefit from new tech. Whether it's smart suspension systems, or new mid-drive motors, chances are they'll be the e-bikes with the latest kit on.

There are plenty of varieties of electric mountain bike – from electric hardtails, which tend to be more leisure oriented, to full-suspension beasts. If you're not sure whether a full-on eMTB is the best fit for your riding, read our overall guide to the [best electric bikes](#) to weigh up some alternatives.

So what do you get for your money with an eMTB? Well, most 'proper' electric mountain bikes - and by that we mean the ones we would actually take to the trail - come with a mid-drive system. This provides superior balance and - because a mid-motor can fully exploit your bike's gears - better power at low speeds than with a hub motor, with obvious advantages for off-road riding.

There is however a big price variation when it comes to electric mountain bikes. You can easily spend over £10k on top-end models. At the same time, you'll be able to find decent value for a couple of thousand pounds – as long as you don't want the lightest or best components on there.

How we chose

- [How we review e-bikes](#)
- [Why you can trust us](#)

Best hub motor eMTB: Volt Alpine - £2,299



The first mountain bike offering from the British brand Volt, the Alpine impressed our tester Richard despite the use of a rear hub motor. At £2,299 it undercuts a lot of the bigger brands but still offers decent performance for the price. The Alpine features the same Spintech branded Bafang rear motor that is seen throughout the Volt range, and it is paired with a torque sensor.

The 504Wh battery is removable and our 70kg tester managed 40 miles of off-road on one charge. If that's not enough, you can buy bigger batteries for more range. The front forks are Suntour X1 with 120mm travel which suggests this isn't something for particularly technical trails, but a fun ride on light off-road nonetheless.

For more detail, read our review of the [Volt Alpine](#).

FAQs about electric mountain bikes

What is the best electric mountain bike brand?

There's no one brand that is head and shoulders above the rest in the eMTB world. The motor and battery technology is generally shared across brands with the differences lying in the frame designs and componentry. Many brands have jumped into the eMTB market, so you've got plenty of choice.

What styles of electric mountain bikes are there?

Just like unassisted bikes, there are both electric hardtails and electric full-suspension bikes available. Hardtails have only front suspension (in the forks), and typically have less travel than a full-suspension bike.

Electric full-suspension bikes have suspension forks and also a rear shock that provides suspension to the rear part of the bike's frame. Hardtails are typically cheaper and easier to maintain, but full-suspension bikes are more capable and can tackle more technical terrain.

What wheel sizes are available on electric mountain bikes?

Similarly to unassisted mountain bikes, electric mountain bikes are usually available with either 27.5" or 29" wheels. On rare occasions there may be 650b wheels, but these are typically reserved for the smaller frames.

What motors are used on electric mountain bikes?

The vast majority of electric mountain bikes now use mid-drive motors. These are motors positioned at the cranks and are far more effective for balance, off-road handling and power at lower speeds compared to hub-mounted motors.

You can expect a 250W motor but with higher levels of torque than other types of electric bike. The top Bosch motors can produce up to 85Nm of torque, for example. The levels of assist will vary depending on the motor and manufacturer, but for the best experience, look for a motor that provides natural feeling assistance rather than something that surges as this should ensure you feel in control of the bike.

How we review e-bikes

A lot of work goes into testing e-bikes thoroughly. Our reviewers ride each bike for at least a month before writing up their findings and coming up with final verdicts.

Every bike we review is assessed thoroughly based on its suitability for the intended discipline and riding style. A lot of focus is of course on the motor and battery, but we pay attention to all the component choices from wheels and tyres to the drivetrain and finishing kit.

We also compare the bike to its main rivals – if there is a similar bike with better spec and a lower price, we'll take this into account. In the case of electric mountain bikes, a lot of these have been reviewed by our sister site, [off-road.cc](#), but they follow the same principles as us when reviewing and testing a bike.

Why you can trust us

E-bikes recommended in ebiketips' buyer's guides will almost always be those we've reviewed in full, or which are rated highly by multiple members of the team.

We've reviewed literally hundreds of e-bikes over the years, and the bikes you'll find in this guide will all have scored 8/10 or more to have been considered for inclusion. Whatever the brand, whatever the marketing claims, if the bike hasn't performed, it isn't listed here.

All of our reviewers and buyer's guide writers are experienced e-bikers. You can therefore be sure we've carefully considered our selections, while the advice you'll find above is based on our real-world experience.

If you're new to e-bikes, you might want to take a look at our [beginner's guide to buying an e-bike](#). Our overall guide to the [best electric bikes](#) may also be of interest if you're not yet quite sure what type of electric bike you're after.

More e-bike reviews

Product type:
[Buyer's guide](#)



Rebecca Bland

Rebecca has been writing about e-bikes for four years, after a typically ill-timed career change pre-pandemic. She's been riding bikes since she can remember, and fell back in love with them after realising it was faster, cheaper, and more fun than getting the bus to work. Nowadays she enjoys all kinds of bikes, from road to eMTB and is training her border collie pup to become a trail dog.

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