



Pros & cons

- + Output of up to 1.5A
- + Easy installation
- Vulnerable on parked bike

Adept Electronics

VeloCharger Hub

On-the-go charging for electronic devices

£105 velocharger.com, spacycles.co.uk

On-bike charging of portable electronic devices, such as mobile phones and navigation aids, has been around for well over a decade. It's hugely useful, allowing as it does the use of such devices for periods of time far exceeding their battery life. At its simplest, a charger has: wiring connecting it to a power source, which is generally a front hub dynamo; a USB port to accept the device-charging cable; and the sophisticated electronics that convert the roughly 6V AC output (which varies with riding speed)

of the dynamo to the USB port's standard 5V DC.

Housing the electronics safely and securely is perhaps the main challenge for manufacturers. Two popular options are inside an enlarged threadless stem cap and inside a headlight casing. Both are reasonably secure since they are integral to the cycle once mounted. The new Mk 2 'Hub' version of the well-proven VeloCharger uses a different approach.

The manufacturer recommends that the charger be placed on top of the frame down tube,

Verdict

Easily installed as recommended, with a healthy power output, effective safety features and proven reliability, the VeloCharger is an inexpensive way into on-board device charging. The suggested mounting location and attachment method mean it should be removed whenever the cycle is left unattended.

immediately behind the head tube. As well as half a dozen cable ties for the wiring, it is supplied with a couple of self-adhesive Velcro-type pads to be stuck to the down tube and charger itself, and a large Velcro strap to hold the charger securely once attached to the pads.

The cable linking the coaxial cable to the dynamo has a connecting socket allowing the wiring to be left in place when the charger is removed for security. Full mounting instructions are provided with the charger, which must be installed with the dynamo wiring facing forward, presumably to keep rainwater out of the USB port.

Suitable for use with a full-fat 6V/3W hub dynamo only, the VeloCharger starts charging at 8mph (12.5km/h) and puts out up to 1.5A at its maximum operating speed of 30mph (48km/h), at which point it cuts out to protect its circuitry from over-voltage. It should be disconnected from the dynamo at sustained speeds of over 40mph (64km/h), which is easily done using the connecting socket.

With overall dimensions of 110x30x20mm, the VeloCharger is attractively styled but, given its exposed, vulnerable position when fitted as suggested, might with advantage be placed in a handlebar bag or top tube bag. In any case, it's possibly the easiest way to get into on-board charging, needing nothing more than a 6V hub dynamo wheel. ●

Richard Hallett

Other options

SINEWAVE REACTOR ▶ £234.99

Waterproof, stem top cap-mounted charger with class-leading output and low-profile design.

sinewavecycles.com,
sjscycles.co.uk



CYCLE2CHARGE V3 ▶ £79.99

Inexpensive stem top cap-mounted charger with ingeniously waterproofed port.

cycle2charge.de,
sjscycles.co.uk

