

REF 27.5" MTB Pro, converted

An aluminium 21-speed hardtail on 27.5-inch wheels, electrified with the Karaa rear-hub kit.

250
W

rated motor

522
WH

removable battery

32
KM/H

assisted speed

50-100
KM

real-world range



REF 27.5" MTB Pro, donor condition. Alloy, red and grey.

The bicycle

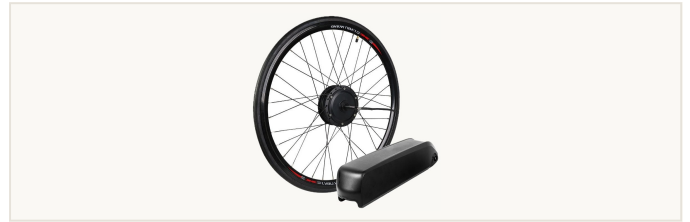
REF is an Indian bicycle brand. Below is the seller's published listing.

Frame	Aluminium
Wheels	27.5"
Fork	Front suspension with lockout
Drivetrain	Twenty-one speed. Shimano Rapidfire Plus shifters, Shimano Tourney front and rear derailleurs.
Brakes	Disc, front and rear
Tyres	Kenda
Supply	Shipped SKD internationally

Fitting the kit

The motor sits in the rear hub, so the rear wheel is replaced. Everything carried in that wheel goes with it.

Compatibility	Confirmed: the frame takes the Karaa rear hub motor.
Kept	Frame, fork, front wheel, both brakes, cockpit, cranks and front derailleur
Replaced	Rear wheel, rear hub and the rear sprockets, rebuilt on a 27.5" rim and 13G spokes
Gearing after fitting	The motor takes a screw-on 6 or 7-speed freewheel, so the bicycle keeps three chainrings and multi-speed rear gearing.
Braking	Unaffected. Both rotors mount to the frame and fork, and the motor carries a disc mount.
Wheel size	Built to 27.5" here, not the standard 26" build.



The Karaa kit: hub-motor wheel and removable 522 Wh battery.

The Karaa kit

Fitted to the rear wheel, which is rebuilt around the hub motor on stainless steel 13G spokes. The bicycle keeps its frame, fork, front wheel and cockpit.

Motor	250 W brushless DC geared hub, 36 V. Freewheels when off. Takes a screw-on freewheel and carries a disc mount, so rear gears and a rear disc brake are retained.
Power delivery	20 A continuous, 720 W at 36 V. 40 A over-current cut-off.
Battery	36 V 14.5 Ah (522 Wh) lithium-ion NMC, removable and lockable, IP54. 50 to 100 km per charge.
Controls	Pedal assist through the Karaa app over Bluetooth: climbing, eco, manual, cargo. Handlebar display shows speed, charge and assist.
Wiring and build	Waterproof 9-pin connector, battery to motor. Wheel laced on stainless steel 13G spokes.
Charger	42 V DC, 2 A. Input 110-240 V AC, 50/60 Hz. About six to seven hours.
Warranty	Motor 10,000 km or one year. Battery 500 cycles or one year. Charger: replaced only if a fault is reported within seven days of delivery.

Bicycle specification: seller's published product listing for REF. 27.5" MTB Pro Alloy at almarfaamarine.com, read 21 September 2026. Compatibility with the Karaa rear hub motor confirmed by Karaa, 21 September 2026. Range: up to 120 km is a manufacturer maximum under ideal conditions; real-world range is 50 to 100 km depending on load, terrain, assist level, temperature and battery age.

Specifications may be updated in future revisions. Deviations are recorded in the signed quotation. Pricing on request.