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Future market: Pedelecs

New player in electric propulsion market

With its freshly established start-up Amprio GmbH, the Rheinmetall Group is entering the rapidly expanding market of propulsion for pedelecs, electric motor-assisted bicycles, with a rated capacity of 250 watts and a top speed of 25 km/h. The company is contributing the experience it has accumulated over decades in electric drive units for auxiliary equipment in the auto industry. AMPRIO will operate as a systems supplier with its own proprietary drive unit including battery pack and peripherals (display, operator controls and connectivity), all modularly configured to the needs of bicycle manufacturers. The motors will be built at an existing plant in Germany of this global auto-industry supplier founded over a century ago.

The new drive unit from AMPRIO, which will be entering the prototype phase for the first customers in the spring of 2018, is remarkable for its high power/weight ratio and very compact dimensions. At the time of launch, it will be one of the smallest, lightest and most powerful motors on the pedelec market. It is highly temperature resistant and, with the aid of customized performance curves, can be very closely adapted to the intended purpose. This makes it suitable for mountain, trekking, load-carrying, low-entry and children's bikes.

Developed inhouse by the technology company Rheinmetall Group, this drive unit is the current benchmark in pedelec propulsion. The compact dimensions of the 48-volt motor from AMPRIO are reflected in the bottom bracket axle (pedal distance or Q factor), which is 10 mm narrower than on comparable systems. Also, thanks to its smaller overall size, the system allows a comparably short distance between the bottom bracket and the rear-wheel axle. This lends the bike very good cyclability on a par with conventional non-motorized bikes, while permitting excellent maneuverability combined with very easy and dynamic handling.

AMPRIO has already presented a prototype as early as at Eurobike in Friedrichshafen, Germany, from August 30 to September 2, 2017, Hall A6, Stand 105.

Photos:



Photo 1: AMPRIO booth at Eurobike Friedrichshafen.



Photo 2: AMPRIO's 48-volt motor.



Photo 3: AMPRIO will offer one of the smallest, lightest and most powerful motors on the pedelec market.