

Victory Motorcycles introducing all-electric addition to its lineup

August 2 2015, by Nancy Owano



Victory Motorcycles has introduced its Empulse TT, the first all-electric addition to the Victory lineup. Features include adjustable suspension featuring a single rear shock and inverted front forks; dual-disk front

brakes for high-performance stopping power; lightweight aluminum wheels; and an LCD instrument display.

The display hosts a speedometer, tachometer, gear indicator and clock; it shows the battery level and provides an estimate of the remaining riding range. *Gizmag* described it as "a road-legal electric streetbike based on Brammo's Empulse R." Victory's mother company is Polaris Industries; *Gizmag* said that Oregon-based Brammo's electric motorcycle business was bought in January by Victory's mother company, Polaris Industries.

This is the first battery-powered bike for Victory Motorcycles. As a fully electric street-legal sport bike, it is capable, said the company press release, of "carving tight lines on twisting roads as it is powering the daily commute." Translation: It has been designed for sporty riding and casual commuting both. The [electric motor](#) can be operated in two modes; the Eco mode is sufficient for everyday riding, while the Sport releases 20 percent more [battery power](#) for stronger acceleration, said *Gizmag*.

The company said the bike's Brammo Power Lithium Ion battery fully charges in just 3.9 hours using a Stage 2 charger, which is available as an accessory using a 240V outlet. The bike will fully charge in 8.9 hours using a regular household 120V outlet.

Speeds? It is capable of top speeds over 100 mph (160 km/h), but it needs to deliver a viable range with a single charge, said Spiros Tsantilas in *Gizmag*. The battery is enough for a range of about 65 miles. Tsantilas said 100 miles is achievable with [throttle](#) management and use of the bike's regenerative charging.

"Regenerative braking converts the motorcycle motor's kinetic energy back into battery [power](#) and gives riders the feel of compression braking on a gas engine when decelerating or downshifting," said Jim

Hammerand, Digital editor, *Minneapolis/St. Paul Business Journal*.

Riders can make efficient use of the battery's 10.4kWh of electricity with the six-speed gearbox. (Not all competitive electric motorcycles have gearboxes, said the company; the Empulse TT gearbox gives the bike a sportier feel, and it enhances a rider's engagement with the bike.)

"Unlike most electric bikes, it's got a transmission, too: six speeds with a hydraulic [clutch](#) required only to shift gears, not to start or stop. For leisurely rides, though, you can just leave it in third and not worry about the clutch," said Noah Joseph in *Autoblog*.

According to the news release: "The clutch only needs to be used when shifting between gears, not for taking off or coming to a stop. To take off from a stop, the rider simply needs to twist the throttle to unleash the liquid-cooled electric motor's impressive torque."

The release added, "neutral is found between second and third gears and a rider can leave the bike in third gear for most riding speeds and conditions. To begin riding, a rider can simply turn the bike's power on, select third gear (without the clutch), twist the throttle and [go](#)."

The Victory Empulse TT [electric motorcycle](#) is scheduled for availability in the United States [later](#) this year. The press release said, "Victory is in the process of determining global demand for the bike before announcing its international sales plan." The pricetag is \$19,999.

© 2015 Tech Xplore

Citation: Victory Motorcycles introducing all-electric addition to its lineup (2015, August 2) retrieved 8 December 2023 from <https://techxplore.com/news/2015-08-victory-motorcycles-all-electric-addition-lineup.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.