

Porsche Electric/V8 Hybrid



Porsche Plug-In!

Preliminary performance specs put the car's top speed of 199 mph with acceleration from zero to 100kmh taking 3.1 seconds. Electric only mode (with a limited range of around 26 km) at speeds up to 94 mph "in short bursts" and Porsche estimates that charging via a 240V/10A outlet will take around four hours. The company is also investigating a quick-charge option in time for the 2013 production run. The original prototype was open top style so to match that original styling the Spyder has a manual roof system that can be removed and stowed in the front luggage compartment.

Electrifying Spyder

Initially released as a concept at the Geneva Motor Show 2010, Porsche's highly innovative and plug-in Hybrid 918 Spyder is now available for order. The Spyder is powered by a 500 hp V8 assisted by two electric motors, production will be limited to 918 units with production of the new two-seater supercar slated to begin in September 2013. So you had better get your order in soon. The asking price: a small change item at \$845,000. The 918 Spyder's plug-in hybrid system is made up of a mid-mounted, 4.0 liter, 500 hp (375kW) V8 engine based on the Porsche RS Spyder racing engine combined with two electric motors – one on each axle – which add another 218 hp (163kW) to the package. Despite this mind blowing power, Porsche estimates that the 918 Spyder will consume just 3.0L/100km based on the New European Driving Cycle (NEDC).

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Round the World in 80 Days on Electric Power

Being first across the finish line on February 24, 2011, wasn't the only factor for picking a winner. The Zero Race was actually decided on a points system that took into account a number of additional criteria including range, reliability and safety of the vehicles. The teams were also given tasks to accomplish during the race and the Oerikon Solar Racing Team's good results on these tasks early on helped the Zerotracer move quickly into one of the leading positions. The teams drove from Geneva to Shanghai, from Vancouver to Cancun, and from Casablanca back to Geneva. They drove across deserts and across mountains, through remote rural areas and through some of the world's largest cities, on all types of roads, in all types of weather. The energy cost of the journey was less than \$400 worth of electricity generated from a wind farm. The net emissions were zero.



Zero Emissions Race

The inaugural Zero Race finally wound up with the three remaining competitors returning to the United Nations Palace in Geneva, Switzerland where the race got underway in August last year. Team Oerikon Solar's - Zerotracer from Switzerland was the first to cross the finish line, followed by Team Vectrix (Germany) and Team Trev (Australia) in third.



The strange looking little green electric from Adelaide University has travelled 28,000 km (17,398 miles) across 16 countries in freezing temperatures, snow, rain and heat to show that electric vehicles can be used for everyday use; and it did it!!

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ALTERNATIVE TECHNOLOGY ASSOCIATION : Promoting energy saving & conservation to households

SE Specs

The two electric motors draw their power from a total of 16 lithium-ion battery modules, each containing 12 battery cells. A total of 192 cells, so there must be two strings of batteries hidden under there somewhere.

Twelve modules are located in the rear of the vehicle with the remaining four placed in the front. The entire battery system weighs 310 kg (683 lb) and all the batteries are water-cooled. Total Power is 37 kWh at a nominal voltage of 350V.

With an aluminum space frame, high-strength steel and alloys reinforced with carbon fiber, the Artega SE tips the scales at 1,400 kg (3,086 lb), which is around 10 percent more than the ICE version. With a similar weight distribution, the SE and GT share comparable handling, braking and performance specs.



Artega SE



There's a nice sight for any car enthusiast with an EV bent, a pretty little sports car happily plugged into the mains.

Joining the expanding all-electric sportscar realm is the Artega SE (Sports Electric) from Germany-based Artega. Later this year you can pick one up for €150K, (\$213K). The SE can run happily from zero to 100 km/h (62 mph) in 4.3 seconds on its way to a top speed of over 250 km/h (155 mph). Modeled after Artega's combustion-engine powered GT model, the Artega SE sports two electric motors on the rear axle with a total output of 280 kW (380 hp) that operate independently to drive each of the vehicle's rear wheels.

With the electric motors transmitting their power (max torque) with no delay, the SE can actually hit 100 km/h 0.5 seconds faster than its ICE stablemate. The company says that, according to the New European Driving Cycle standard, the Artega SE has a range of 300 km (186 miles), but under normal driving conditions it can comfortably achieve 200 km (124 miles). The batteries can be recharged using standard household supply via a plug located in the rear of the vehicle, or via fast charging using dedicated facilities. Speed charging can recharge totally depleted batteries in just 90 minutes.

The Shape of Things ~~to~~ Come That Were??



Ford's Comuta

Seems that the Geneva Motor Show has always been at the forefront of electric vehicle releases, in days gone by the Ford Comuta was an all electric town car that graced the shores of Lake Geneva in 1967.

The Comuta had a top speed of 40 mph and a range of 40 miles (@ 40kmh), and that was 44 years ago. Power was supplied from four 12volt 85Ah lead acid batteries.

The upcoming electric Ford Focus (hopefully it will become reality unlike the Comuta) has more than double the range (160km) and double the top speed at 84 mph (135 km/h), but surely the Comuta is worth digging out of the archives for a second look. With modern motors, advanced controllers and high power density Lithium batteries, the Comuta might be quite suitable for European cities such as London where road speeds haven't progressed much since the horse and cart.

This Month's Q&A Technology Tip

Q: I'm currently converting a vehicle and need a 1000A controller, is there any instrumentation available for this current range?



A: As you are probably aware using a current shunt in this type of circuit could be dangerous – so a Hall Effect sensor is the best option. The EV Display from CleanPowerAuto LLC is capable of reading current

flow up to 1000A @ 512 V and has a new square open board display for in dash mounting.

<http://minibms.mybigcommerce.com/products/EV-Display.html>