



TOYOTA MOTORSPORT GmbH BREAKS NÜRBURGRING RECORD AGAIN

Tuesday 2 October 2012

TOYOTA Motorsport GmbH (TMG) continued its record-breaking success with the TMG EV P002 by setting a new electric record on the legendary 20.8km Nürburgring Nordschleife circuit in Germany.

Using TMG's motorsport-tuned electric powertrain, driver Jochen Krumbach set a lap time of 7mins 22.329secs, breaking the electric record set by TMG last August by over 25 seconds.

This achievement marks the second milestone for TMG's electric powertrain this year following its new record at Pikes Peak International Hill Climb in Colorado, United States.

As with the Pikes Peak success, TMG's latest electric milestone used pioneering off-board battery-to-battery charging technology.

The TMG DC Quick Charger was developed in partnership with Schneider Electric to meet the challenge of recharging an electric race car at tracks without reliable access to grid power. This technology also gives the opportunity to charge with CO2 emission-free electric power from renewable sources.

Mounted in the rear of a TOYOTA Hiace van, the TMG DC Quick Charger uses Schneider Electric's EVlink™ technology and includes a 42kWh lithium ion battery, which can be charged direct from the AC power grid.

After an overnight charge, the TMG DC Quick Charger is able to quickly deliver high levels of power to a battery-based electric car without additional installation or infrastructure, making it the perfect solution for electric motorsport.

Ludwig Zeller, TMG General Manager Electrics and Electronics: "Since our Nürburgring record last year, we have developed our electric powertrain to deliver more power, more consistently, over a longer distance by managing the temperature of batteries, motors and inverter. Pikes Peak was a clear illustration of the improvements and we have now reinforced that at the Nürburgring. But this achievement is not only about on-track performance; we are also very proud of the DC Quick Charger which again provided a reliable power supply in a remote location. This is an aspect of electric motorsport which has not been discussed at length but it is very significant; electric race cars need to be charged and it is a challenge to have the right infrastructure at race tracks, particularly temporary street circuits. Together with our partners at Schneider Electric, we have developed a solution to charge a race car literally anywhere in the world. This, along with the TMG EV P002 powertrain, represents a major step forward for electric motorsport."

A copyright-free onboard video of the new lap record is available at www.thenewsmarket.com/toyotamotorsport.



TMG EV P002 Technical Specifications	
Performance	
Top Speed	255km/h
Maximum Torque	900Nm
Maximum Power	350kW
Maximum Revs	5000rpm
Powertrain	
Electric Motor	2 axial flux
Inverter	2 x TMG inverters
Gear Ratio	2.5
Transmission	Single-reduction gearing
Battery	Lithium ceramic
Battery Capacity	42 kWh
Charging Technology	Off-board DC charging
Dimensions	
Length	4.10m
Height	1.04m
Width	1.79m

TMG DC Quick Charger Specifications	
AC Grid Connection / Input	
Grid Connection	400 V AC CEE 16 A
Nominal input power	6.6kW
DC Vehicle Connection	
Output voltage	400 V _{DC}
Maximum DC output power	25kW
Storage	
Battery	42 kWh, lithium ion
General	
Technology partner	Schneider Electric (EVlink™)
Operating temperature	0 to 40°C
Storage temperature	-30 to 60°C
Protection	Short-circuit protection, output fuse, over-current and over-voltage protection, under-voltage shutdown



About Toyota Motorsport GmbH:

Toyota Motorsport GmbH (TMG) has been based in Cologne, Germany since 1979 and built its reputation in the World Rally Championship, winning four drivers' and three manufacturers' title during a long participation which ended in 1999. TMG was also the home of Toyota's works Le Mans 24 Hours (1998-1999) and Formula 1 (2002-2009) teams, both of whom achieved pole and podium positions, and a tuning and sports conversion subsidiary (established in 1994). Since 2007, TMG has been a pioneering centre of development for motorsport-related electric vehicle technology and for alternative drive train and infrastructure integration in general. TMG has already concluded several electric vehicle projects for external clients and is the proud record holder for electric vehicles at the Nürburgring Nordschleife and Pikes Peak International Hill Climb. www.toyota-motorsport.com.

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About Schneider Electric:

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Utilities & Infrastructures, Industries & Machine manufacturers, Non-residential buildings, Data centers & Networks, and in Residential. Focused on making energy safe, reliable, efficient, productive and green, the Group's 130,000 plus employees achieved sales of 22.4 billion euros in 2011, through an active commitment to help individuals and organizations make the most of their energy. www.schneider-electric.com/company