

Highlight at the 2015 Geneva International Motor Show: The new QUANTiNO

Low-voltage vehicle with rated voltage of 48 V and range of over 1,000 km

- First QUANT low-voltage vehicle
- Electric vehicle with 4x25 kW/136 hp
- Top speed of 200 km/h
- 22-inch wheels for 2+2-seater

Vaduz, 17 February 2015 – "This car is a sensation and will be one of the absolute highlights at the 2015 Geneva International Motor Show," proclaims Prof. Jens Ellermann, President of the Board of Directors of nanoFlowcell AG. nanoFlowcell AG will be presenting the first QUANT low-voltage vehicle as a concept vehicle at the Swiss car show from 3 March 2015.

"With the QUANTiNO we present the smaller brother of the QUANT E and the QUANT F in Geneva. An innovative electric vehicle with mass appeal. Sporty, dynamic, and above all with a low-voltage drive system. With a rated voltage of only 48 V we achieve four times 25 kW, corresponding to around 136 hp, through a combination of nanoFlowcell®, buffer system and electric motors. This set-up provides us with a top speed of over 200 kilometres an hour in all-electric mode and a range of over 1,000 kilometres, without any harmful emissions," points out Nunzio La Vecchia, Chief Technical Officer at nanoFlowcell AG, regarding the latest model from the QUANT family.

"The QUANTiNO is an electric vehicle for everyone. Affordable and featuring an extravagant, unique design. It is not just a concept vehicle – it will become reality in the course of this year. We will be driving the QUANTiNO in 2015. And we aim to attain approval for road use very quickly," says Nunzio La Vecchia.

Vast ranges for the QUANTiNO with nanoFlowcell®

The innovative drive concept comprising low-voltage system and nanoFlowcell® provides the QUANTiNO with a range of over 1,000 km. "Low-voltage systems are an ideal match for the nanoFlowcell®. They enable us to generate levels of drive power that previously appeared impossible. And we are only at the beginning of our development work. The initial tests and simulations already indicate far greater potential. This concept represents a real alternative for the electric mobility of the future, with outstanding drive power and vast ranges," says La Vecchia.

With its two 175-litre tanks, the QUANTiNO is able to carry 350 litres of ionic liquid in total – one tank with a positive charge and one with a negative charge. The refuelling process is similar to the procedure which is customary today, the sole difference being that two tanks are filled simultaneously, each with a different fluid.

2+2-seater with 22-inch wheels

Measuring 3.91 metres in length, the QUANTiNO is a 2+2-seater boasting a unique design. A striking detail is the 22-inch wheels. "As the small brother of the QUANT E and the QUANT F, we wanted to emphasize the fact that the QUANTiNO belongs to the QUANT family. Both the front and rear end clearly demonstrate this kinship. In particular, the large 22-inch wheels which the QUANTiNO has adopted from its big brothers in the QUANT family set it apart in its class in terms of appearance," notes Chief Technical Officer Nunzio La Vecchia.

Low-voltage systems – background and advantages

To date, low-voltage drives have featured primarily on vehicles with very low drive outputs (< 5kW), such as golf carts, e-scooters or light-duty motor vehicles such as four-wheel vehicles with relatively low drive outputs (< 20kW) for urban use. "To our knowledge, a low-voltage drive system has never been deployed before in a larger passenger car, such as is now being demonstrated on board of the QUANTiNO. The required drive output always restricted the spectrum of useful applications for a low-voltage system. This is all changing now with the nanoFlowcell®. Very high currents are required for the levels of drive output typically needed by vehicles. This necessitates exceptionally large cable cross-sections and increased transmission losses with high-voltage systems. With the nanoFlowcell® we have been able to solve this problem. Here we generate very high currents at a very low rated voltage which are perfect for the purposes of the low-voltage system," explains Chief Technical Officer Nunzio La Vecchia.

"Low-voltage systems offer various advantages over high-voltage systems, such as are used in electric vehicles today. While high-voltage electric vehicles require complete contact and flashover protection, this is not needed for low-voltage vehicles. In accordance with ECE-R 100, no additional measures to prevent accidental contact are necessary for low-voltage systems. This also gives rise to much faster homologation of low-voltage vehicles, as functional safety is more simple to realise," explains Nunzio La Vecchia.

"Low-voltage systems are an ideal match for our nanoFlowcell®. By combining the two, we can exploit substantial range potential and advantages for our electric vehicles," notes nanoFlowcell AG's Chief Technical Officer.

The world premiere of the QUANTiNO will take place on 3 March 2015 at a press conference to be held at the 2015 Geneva International Motor Show (hall 1, stand 1224).

Information for the media

You can find additional media information as well as photographic materials on the Internet, in the nanoFlowcell AG Media Center at <http://mediacenter.nanoflowcell.com>. The latest videos about the two world premieres of the QUANT F and the QUANTiNO will be available for download free of charge from 3 March 2015 at <http://www.news2use.tv/>.

About nanoFlowcell AG

nanoFlowcell AG, founded in late 2013, is an innovative research and development company. The research of nanoFlowcell AG focuses on advancing the flow cell drive system technology and systematics. With the granting of a road-use licence by SGS TÜV Saar in July 2014 and the associated driving permit for German and European roads nanoFlowcell AG has introduced the first-ever car using flow cell drive technology to our roads – the QUANT E. The next milestone for the company will be obtaining the permit to go into series production and developing other uses for the nanoFlowcell® in different sectors of industry and business. Two 100% subsidiaries of nanoFlowcell AG were established for this purpose – nanoProduction GmbH in Waldshut/Germany and nanoResearch SA in Switzerland.

Media contact

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