

Press Release

Hydrogen Technology

16 September 2008

TÜV SÜD – World premiere for fuel cell by Proton Motor

Munich/Puchheim. For the very first time in the world, TÜV SÜD has awarded its fuel cell seal of approval for a new module produced by Proton Motor Fuel Cell GmbH based on the standard DIN EN 62282-2. The TÜV SÜD octagon for fuel cells is given to systems meeting its special requirements in terms of safety and technical perfection. Now that the new liquid-cooled PM 200 module is certified, Proton Motor from Puchheim near Munich has also cleared a decisive hurdle along the road to series production.



In the face of the increasing shortage of fossil sources of energy, hydrogen and fuel-cell technology is gaining ground fast. But up to now it had one big disadvantage: the fuel cell modules – also referred to in the industry as stacks – had been produced individually in small quantities, which made them very expensive.

Automated production will now be possible with the new series. “The PM 200 stack was developed specially for series production and certified on the basis of standardised system components. In this way, we have made decisive progress not only with the fuel cells, but also on the system side”, commented Dr. Jürgen Kraft, Head of Development at Proton Motor.

Certifying the stack has paved the way for reaching and maintaining a standard of quality that is just as high in series production as in production on manufacturing scale. Leak tests, pressure tests, freezing and thawing, these are only a few of the tests the new module had to pass. “For most systems, it is freezing test in particular that is sure to finish them off”, says Tom Elliger of TÜV SÜD Industrie Service, “but the PM 200 passed all these tests.”

Hydrogen technology: versatile applications

Armed with this award, the production of fuel cells can go ahead with the next steps along the road towards automated series production. In future it should be possible to produce several thousand modules a year. Fork-lift trucks, buses, municipal vehicles, uninterruptible power supply, for telecommunications systems for instance: These are just a few examples of the applications, in which the new PM 200 series will supply the energy needed. The module will be used in systems with a fuel cell output of between two and 20 kW and its particular features include increased power density, frost-proof storage and suitability for automated production.

Seal of quality also for production

Right from the start, the Puchheim company worked together with TÜV SÜD even at the stage of developing series production, which meant that the individual production processes were immediately subjected to stringent quality management requirements. "By working with TÜV SÜD we succeeded in meeting exceptionally high quality standards, also in the production of the new PM 200", underlined Benedikt Eska, Chief Operating Officer of Proton Motor. For the commitment and technical know-how, TÜV SÜD Industrie Service has developed a seal of its own for certifications based on DIN EN 62282-2:2008-1. The technical requirements correspond to those of the international IEC 62282-2 standard. The PM 200 module is the very first product in the world to receive the TÜV SÜD octagon for a fuel cell module. "The TÜV SÜD octagon covers more than merely a test certifying conformity with the standard. It also ensures, for example, that the manufacturer supplies consistently good quality", Elliger added.

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OECON GmbH is the leading system architect for mobile positioning and communication technology applications. Its system expertise covers the satellite navigation technologies GPS/GLONASS/GALILEO, positioning in mobile telephone networks (GSM/UMTS) for location-based services and positioning procedures in mobile radio networks (Bluetooth/WLAN). Core competencies are extended via participation in the European satellite navigation system, GALILEO.

Proton Motor Fuel Cell GmbH is an expert in industrial fuel cells, fuel-cell and hybrid systems with more than 14 years of experience in this sector. The company based in Puchheim near Munich offers complete fuel-cell and hybrid systems from a single source – from development and manufacture to implementation of customised solutions. The fuel-cell specialist focuses on back-to-base applications for fork-lift trucks or city buses, for example, as well as stationary solutions. Its range of products covers PM Basic basic fuel-cell systems, PM Package standard complete systems, e.g. as battery replacement, as well as PM Turnkey customised systems. Proton Motor is a wholly-owned subsidiary of Proton Power Systems plc. The company has been quoted on the London stock exchange since October 2006 (Code: PPS).