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**Detect module faults in PV systems at a glance**

The PMD5000 shows the system status at a glance - the measurement takes place directly at the inverter

**With the PMD5000, photovoltaic plants can be checked for module errors within a few minutes - without the need for maintenance personnel climbing on the roof. The device, developed with the support of FH Campus Vienna, operates according to the principle of a characteristic form check. In contrast to conventional, sensor-based measuring methods, it enables a quality check during the start-up of a system as well as during operation, without the hassle of attaching sensors. This greatly facilitates the work of electricians and solar technology specialists. They can now effortlessly create a test report and accurately document the condition of a system for their customers. In addition to the pure testing of the PV system, the PMD5000 also offers an interesting potential for longer-term maintenance contracts.**

Small faults in individual modules of a photovoltaic system generate large losses due to the series connection of the solar cells. The system then delivers a lower output. For example, cell and contact damage can occur, which can arise during production, during transport or during assembly. Even defective solder joints within the PV modules weaken the performance of a solar power plant. The detection of such faults has hitherto been associated with an elaborate procedure, in which the maintenance personnel had to install extra sensors on the roof, which is not only very time-consuming, but also involves considerable safety risks.

**This to-date arduous testing procedure is now much more simple**

With the PMD5000, it is possible to subject the PV system from the ground or inverter to a comprehensive test in the space of a few minutes. For this, the strands are simply marked and measured at the inverter. In the case of firmly clamped strands, they can also be measured in parallel. The installer or solar power specialist will receive a characteristic curve at a glance, which provides information on the condition of the system. In this way, as a proven, reputable provider, they can easily record even during the set-up that everything is correct and document the quality of their work.

**New service offers**

The PMD 5000 also enables an interesting range of services: system faults occur over the course of time due to mechanical influences such as wind, snow or temperature fluctuations. Solar power specialists and electrical installers can offer inspections of the systems and, if necessary, replace the modules.

In addition, it will be possible to offer the customer annual maintenance contracts, which ensure that the system is regularly checked and that the modules are exchanged in good time in case of performance issues. For logging purposes, the measured characteristics can be stored on a USB stick on request and, via special software, can be transferred directly to a PC, further processed and archived. The PMD5000 was developed by Compact Electric with the support of FH Campus Vienna and can be obtained from TELE Haase.

**Text and images are available for download at**
[**http://www.tele-online.com/organisation/kontakt/presse**](http://www.tele-online.com/organisation/kontakt/presse) **.**

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# About TELE

# Founded in 1963, the company makes products for a better world and specializes in high-value industrial electronics such as monitoring technology, time relays, power electronics, and grid and system protection. Known as a Smart Factory, TELE is an innovation laboratory for integrated technologies. At its Vienna location it produces technological solutions for mechanical and plant engineering, renewable energies, water & waste, and other industrial sectors. TELE's organizational culture is free of traditional hierarchies, which creates the space needed for independent thinking and extraordinary ideas. In 2016 the company generated approximately 13 million euros, 9.6 million euros of which were from exports. In addition to the site in Vienna with around 90 employees, TELE Group also consists of an international network of more than 60 trade partners.

**About FH Campus Vienna**

With around 5,800 students, FH Campus Vienna is the largest university of applied sciences in Austria. Across the departments of Applied Life Sciences, Building and Design, Health Sciences, Nursing Science, Public Sector, Social Sciences and Technology, an offer of 60 Bachelor and Master degree courses as well as full-time and extra-occupational Master's courses are available. The central research fields of the Department of Technology are Manufacturing and Automation, Security and Safety, Smart and Green Technologies and Ambient Assisted Living.
http://[www.fh-campuswien.ac.at/facts](http://www.fh-campuswien.ac.at/facts)

**About Compact Electric**



Compact Electric is a medium-sized Austrian company and a competent technical partner for industry, commerce and trade. As a dynamic, owner-managed family business, we can react flexibly to customer requirements.

Our business segments are divided between the fields of technology and safety. Research and development, engineering and plant engineering comprise the technology area. The Safety division is concerned with the protection of people, machinery and plants. We are an innovative, forward-looking partner to our customers. We are flexible in the scope of our services, from traditional supplier to development partner.

http://www.compactelectric.at