Bankability through smart solutions

Over 1.6 billion connectors from Stäubli's solar range have provided reliable connections all over the world since 1996. This represents a PV output of over 300 GW, which is almost impossible to believe. Matthias Mack, Director Global Alternative Energies and member of the Management Board at Stäubli, came to talk to PES about Stäubli Electrical Connectors, its company values and the future direction.

PES: Welcome back to PES Solar. We have had the pleasure of several interviews with your company, and have followed your progress with great interest. As always, we have many new readers, for their benefit could you give us a brief history of Stäubli?

Matthias Mack: We are part of the Swiss family-owned Stäubli Group, a global mechatronics solution provider with three dedicated activities: Connectors, both fluid and electrical, Robotics and Textile, founded in 1892.

Stäubli Electrical Connectors, formerly Multi-Contact, is an experienced specialist and market leader in electrical connectors for photovoltaic solutions. We offer reliable, long-lasting quality components and services that help to reduce operational and maintenance cost.

Safe and efficient products along the whole electrical PV supply chain, from roof top installations to power optimizers and energy storage, provide reliability and zero maintenance to increase the bankability of the project.

PES: Is the solar PV industry still a growth area for you and why do you think this is?

Matthias Mack

MM: Decentralized photovoltaics will ensure grid parity for solar power worldwide. With the focus on capacity and sales development in the decentralized photovoltaics sector, technology costs will fall continuously. This will transform photovoltaics from a luxury good into a marketable and competitive economic good. Big global players will enter the game by advancing into the industry while high-quality components will win over markets driven by ROI and bankability.

We expect to see around 105 to 120 GW of new PV capacity and more than 17 markets exceeding 1 GW of installation this year. Our Q1 sales figures and customer requests clearly underline this increased market demand.

Despite the current situation due to COVID-19, we see little change in the short term and are convinced that the predicted GW figures will be installed. For 2021 the forecasts are still vague, but we remain optimistic.

PES: We would like to know about the company values, what are they and how do they relate to your work and employees?

MM: Creating value for our customers is at the heart of everything we do, this makes us a preferred and reliable partner. We have the motivation to move forward, using our expertise and broad industry know-how to improve productivity in the processes. To ensure a clear added value to our customers' efficiency and sustainability, we pursue structured workflows worldwide in all areas and locations.

People make the difference, that is why we assign high value to a close exchange with our customers, which allows us to anticipate queries and propose improvements of concepts, designs or implementation. This proximity keeps us at the pulse of events and enables us to work out innovative solutions.

PES: How important a role does R&D continue to play for you as a company?

MM: R&D plays a paramount role in sustaining our leading position in the industry. We take into consideration all aspects of the customer needs and the product portfolio when defining R&D projects. This covers a wide field from material and their interdependency, electrical aspects, safety aspects, product and quality improvement, but also gathering more information about our products and their behavior while in use.

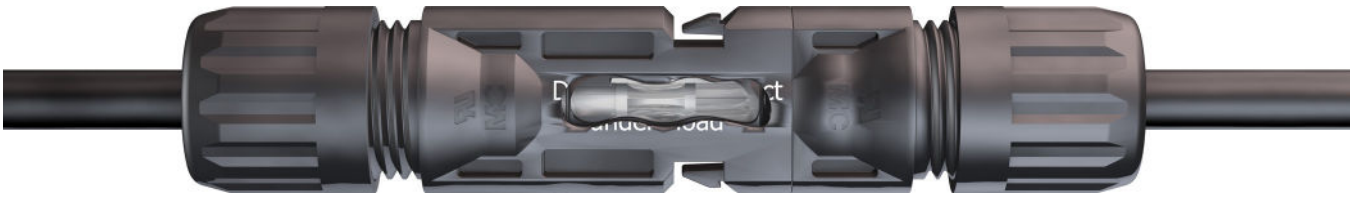
R&D is a discipline we do in-house, in close cooperation with our supply partners and also with highly reputable partner institutes in the academic world. All this with one aim, to serve the market with a robust and reliable product.

PES: We would be interested to learn about new products and campaigns you are embarking upon currently, or in the near future: what technologies will be used and what are the benefits to the client?

MM: A strong focus of our communication activities will be our holistic market approach based on the concept of bankability. In general, we will discuss measures for risk reduction through product solutions and services in relation to eBOS components. The goal is to minimize the LCOE by optimizing the balance between CAPEX & OPEX.

However, we also aim at a communication that transports our conviction to do something sustainable for the future of renewable energies to the outside. A communication that underlines our attention to detail.

We plan to expand our offering in terms of in-depth education through white papers, webinars and on-site training. Furthermore, we strive to provide smart solutions that go beyond the mere supply of connectors to support our customers in the best possible way.



Original MC4 PV connector; 300 GW PV capacity rely on more than 1.6 billion connectors.

PES: How do you test new products to ensure they are durable and perform to a high standard, this must be particularly challenging with the variation in climatic conditions and different norms in various parts of the world?

MM: We are a certified manufacturer and pride ourselves in meeting all the requirements of the respective markets and local regulations. Complying with international standards goes without saying and is fundamental for us. For this reason, we assure that our products meet or exceed relevant industry standards.

We attach great importance to field data, testing according to customer specifications and long-term in-house testing. Our own test laboratories worldwide are regularly reviewed by the national and international standard organizations. At the same time, we participate actively in the relevant standards committees and can therefore quickly adapt to changes.

PES: Why should a prospective client choose you, what makes your products stand out from the competition?

MM: The attention Stäubli pays to every detail is what creates trust and makes us a bankable partner and supplier of reliable components to keep your PV installation up and running efficiently and safely. By choosing Stäubli, customers benefit from profound expertise, extensive support and long-life connectors that help to obtain a low LCOE.

There are several reasons that make Stäubli the partner of choice for eBOS components. With us, you are entering into a long-term partnership built on reliability, dynamism and exceptional quality in both products and services. Stäubli is more than 'just' a product or a system component and this is what really matters in the complexity of a PV project; all the details to mitigate the risk and to ensure the return on investment of a PV system.

This can only be achieved through secured efficiency in the long term on the basis of high-quality components and workmanship. Therefore, the right decisions have to be made at early stages of a PV project. Wrong choices in planning, due to lack of knowledge or low quality components, can cause unexpected loss of production or potential safety issues during the lifecycle of a PV system. Bear in mind: The smallest component can be systematically relevant and put the whole system at risk at the same time. Stäubli is this one partner whose products you can entirely rely on.

PES: We know Stäubli is a global player, are there any markets that you would like to break into?

MM: In fact, our PV products are already present via the vast majority of global OEM suppliers for all types of PV systems. For this reason, we can proudly claim to already have global coverage with our PV portfolio.

Environmental issues have played a major role in this. Public awareness has increased considerably, with most people agreeing that alternative energy sources need to be used.

What we aim for is to maintain this global presence. We will certainly look at some specific markets and invest in such a way that it becomes as easy as possible to do business with Stäubli. This encompasses measures in all aspects of marketing and sales of the Stäubli PV portfolio.

PES: Apart from the corona crisis, where do you see the challenges for Stäubli in 2020/2021? What has been achieved so far and how do you see the market developing?

MM: We have over 56 years of practical experience in producing reliable electrical connectors for different industries. The first industrial photovoltaic connector (MC3) was introduced by Stäubli in 1996 followed by the original MC4 in 2002 setting the quasi industry 'standard' ever since. During this time, more than 300 GW of PV capacity, or almost 50% of the PV power worldwide, has been successfully installed using over 1.6 billion original MC4 connectors from Stäubli Electrical Connectors.

Furthermore, Stäubli's presence in markets with a wide scope of requirements, enables us to provide solutions adapted to real-life uses. With such long-standing industry know-how, we also know how to cope with today's challenges in the face of COVID-19.

In the short term, our focus now is on maintaining all important operations in terms of logistics and supply chain – customer care is still of utmost concern as well. We want to adapt as flexibly as possible to the market in China, the epicenter of the global PV industry, and handle uncertainties in a professional and agile way.

On mid- and long term, we expect to return to the pathway we have been on since 2018/2019. This offers steady annual growth rates for PV, with Asia as the most powerful growth engine. This allows us to remain optimistic when it comes to the development of the PV industry in the near future and makes us proud to contribute to making photovoltaics the key technology in the transition from conventional energy sources to renewable ones.

www.staubli.com

About the product

The original MC4: Its excellent characteristics have made the MC4 - MC = Multi-Contact, the 'de facto standard' for connectors throughout the world for over 18 years.

The heart of every connection is the tried and tested stable MULTILAM Technology, which guarantees consistently low performance loss throughout the service life of the connector.

The MC4 meets the conditions for the IP65 and IP68 degrees of protection and is approved for use within a temperature range of –40°C to +85°C (IEC and UL, 1500 V).

The impact-resistant polycarbonate housing can withstand UV radiation, salt spray and ammonia vapors.