

## **New Product Range: Liebherr Supplies Charging Cable Cooling Units for E-mobility Charging Stations**

**October 2018 – Liebherr-Transportation Systems has been selected by ITT Cannon to supply active cooling units for its liquid cooled DC High Power Charging (HPC) solution. This contract enables Liebherr to contribute significantly to the further development of electro-mobility. Initial units of the cooling units, cables and connectors have already been delivered for assembly in EV ultra-fast charging stations in the USA and Europe.**

The prototypes of the active cooling units - also known as Thermal Conditioning Units (TCU) - have been developed by Liebherr-Transportation Systems GmbH & Co KG, Korneuburg (Austria) specifically for e-mobility charging stations and were extensively and successfully tested beforehand by ITT Cannon, together with Efacec's Electric Mobility division, one of the world leaders in fast and superfast charging. Liebherr's technology cools the innovative high-performance ITT Cannon HPC charging cable and connector to reliably limit a rise in temperature during the charging process.

Ralf Glocker, Senior Product Manager, ITT Cannon, commented during the climate chamber testing: "The cooling performance has exceeded our expectations."

Feedback has been very positive, not only from the testing but also from field use. Reliability under all environmental conditions is an outstanding feature of the combination of the Liebherr cooling unit and the ITT Cannon solution. The concept is therefore very well positioned in the competition for the best solution and is increasingly in demand from customers.

The TCUs, in combination with the liquid-cooled cable and CCS connector, enable charging of electric vehicles. Installation in the first high-power charging station network, with an output power of 350 kW, a maximum current of 350 A and a high voltage of 1,000 V, have taken place in both the USA and Europe. In addition, the Liebherr team is developing additional cooling units to meet the increasing market requirements.

The cable cooling systems are a new solution for an e-mobility application and thus represent – in addition to, for example, cooling units for e-bus batteries – a new

business area for Liebherr-Transportation Systems. The company is working together with ITT Cannon, part of ITT Inc. – a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets.

The order for the charging stations will contribute to the continuous and long-term expansion of Liebherr's position in the growing and very promising market of cooling systems for rapid charging stations for electric vehicles.

### **Liebherr-Transportation Systems – Renowned Manufacturer of Railway Technology**

Liebherr-Aerospace & Transportation SAS in Toulouse (France) is one of eleven divisional control companies in the Liebherr Group and coordinates all activities in the fields of transportation and aviation equipment. It employs around 5,400 people worldwide.

Liebherr's transportation systems division supplies cab and saloon heating, ventilation and air conditioning (HVAC) systems, diverse chiller systems for catenary free e-mobility applications, hydraulic actuation systems, dampers and hydraulic load levelling equipment for rail vehicles of all kinds. Liebherr has many years of experience in the development, manufacture, and field service of these technologies, offering support throughout the entire product lifecycle. The company invests continuously in its R&D activities in order to offer its customers new generations of diverse transportation systems solutions.

Liebherr-Transportation Systems has three production plants in Korneuburg (Austria), Marica (Bulgaria) and Zhejiang (China). In addition to its own sales and service centers, the division has access to the Liebherr Group's extensive and unique technologies as well as development and service facilities around the world. This global set-up means that Liebherr-Transportation Systems is there for its customers wherever they may be.

## Caption



ITT Cannon CCS2 HPC Connector.jpg

Liebherr technology cools the ITT Cannon HPC charging cable and connector during the charging process. - © ITT Cannon

## About EFACEC

With a comprehensive value chain, Efacec acts in the generation, distribution and transmission of energy; design, energy, construction and maintenance of integrated systems (EPC - Engineering, Procurement and Contracting) for the energy, environment, industry and railways sectors; and development of Electric Mobility solutions and their commercialization. Efacec Group is present in strategic markets such as Europe, the United States of America, Latin America, Asia, Maghreb and South Africa.

## About ITT Cannon

ITT's Cannon brand is a leading global manufacturer of connector products serving international customers in the aerospace and defense, medical, energy, transportation and industrial end markets. Whether delivering critical specs to aircraft pilots, streaming data through communications satellites or giving expectant parents a first look at their unborn children, Cannon connects the world's most important information to the people who need it. In 2015, Cannon celebrated 100 years of making connections that helped make history. Cannon products were used in the first "talking" movies and helped transmit the first messages home from the moon. Today we proudly continue our

legacy of innovating to connect the world and inspire the successes of the next century  
– because amazing things happen when great things connect.

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