



Press Release

M&F SMART TECHNOLOGY is first to achieve CENELEC B product certification used in G3-PLC railway applications

Paris, France, May 24th, 2019. G3-PLC Alliance member M&F SMART TECHNOLOGY from Italy is the first company to achieve a G3-PLC Alliance product certification for CENELEC B.

First G3-PLC product certification for CENELEC B

M&F is part of LEF Group, which develops among others powerline communication technology for railways and railway stations smart management. LEF is the first company to have certified a device compliant with the G3-PLC protocol in CENELEC B band opening the way for use of this technology in civil and industrial applications. LEF has developed and manufactured devices that see their use in railway smart stations, along high-speed lines (AV) and in railway tunnels. By interfacing the various users with these PLC devices, it was possible to create remote management and monitoring systems for lighting of railway stations, security lighting in the gallery, access controls, lifts, underpasses, water lifting pumps, smart metering, control systems for railroad sweepers and environmental monitoring systems. All these applications, thanks to the power line already being present, were made without any additional infrastructure.



G3-PLC railway applications

For RFI, the public railway company and one of the leading industries in Italy, LEF developed embedded devices for several applications based on powerline communication using G3-PLC in CENELEC B band and in accordance with well-defined technical rules of RFI, like DTC STS ENE SP IFS LF 169 for lighting and power systems. It describes the application layer to be used in powerline communication. Both these conformances guarantee RFI the complete interoperability and one to one replacement between devices developed by different producers.

For utilities monitoring and remote controlling in smart stations LEF developed a powerline system that offers a range of functions. Several utilities can be remotely controlled, interfacing them to the PLC devices, e.g. lighting, water level pumps for bridges, firefighting systems, access controls, elevators and electricity, water and gas meters. Another PLC installation is used for monitoring electric heating track switches. It enables to monitor the power consumption of the self-heating cables, the status of the power transformer in case of anomaly detection, the on/off status of the power switch as well as the temperature of the heated rail and ambient temperature.

A G3-PLC installation used for tunnel safety offers to monitor emergency lighting switch on, the status of the pushbuttons and the power consumption of each lamp, with alerting in case of anomaly detection. All these functions are carried out over the existing powerline without any additional infrastructure.

About G3-PLC

G3-PLC is a protocol for narrow band low frequency powerline communications. G3-PLC facilitates high-speed, highly-reliable, long-range communication over the existing powerline grid. With the ability to cross transformers, infrastructure costs are reduced and with its support of IPv6, G3-PLC will support powerline communications into the future.

About the G3-PLC Alliance

The G3-PLC Alliance was formed in order to support, promote and implement G3-PLC in smart grid applications. Its members come from the key stakeholders in the smart grid ecosystem. The objectives of the G3-PLC Alliance consortium are to support G3-PLC in internationally recognized standards bodies to achieve the rapid adoption of G3-PLC specification worldwide and to develop a framework for equipment testing to facilitate interoperability among adopters. Moreover, the Alliance educates the market and promotes the value, benefits and applications of G3-PLC.

About LEF Group/M&F SMART TECHNOLOGY

LEF Group from Italy is active in the energy transformation market since 1958 and strongly focused on developing new technologies to increase the quality of services provided in the electricity distribution, transport infrastructure and public and private lighting areas. LEF Group consists of six companies involved in design, production and distribution of electromechanical transformers and stabilizers for the industrial sector, high tech products and systems for railway applications, lighting and electronic systems suitable for industrial and civilian environments. LEF provides integrated efficiency solutions, combining energy, automation and software.

For more information visit our website: www.G3-PLC.com

Contact G3-PLC Alliance

Leon Vergeer

G3-PLC Alliance General Secretary

leon.vergeer@g3-plc.com

Contact LEF Group

Massimo Baldini

LEF CEO

massimobaldini@lef.it

Giuseppe Frino

M&F Dev Manager

giuseppefrino@lef.it