ABB continues to innovate, and has developed a new generation of lightning devices. The new OPR range with increased initiation advance performances, represents further progress in terms of protection, operating autonomy and ease of maintenance. These advancements reinforce ABB’s position as the International leader in direct lightning protection with over 200,000 installations throughout the world and is now UL Listed.

ABB MANUFACTURING QUALITY

The enviable reputation of the OPR has been earned through maintaining a consistently high quality in manufacture. Before leaving the factory, each OPR has been tested for installation breakdown at high voltage, and subjected to a current test that ensures its performance when conducting lightning discharges. The high voltage output pulses at the OPR are also examined to verify correct amplitude and frequency. The OPR is built to withstand the arduous conditions encountered in service, and its ongoing performance can be monitored simply and quickly using the OPR test set. The OPR system is eligible for the UL Inspection Report.

THE ADVANTAGE OF INITIATION ADVANCE

The unique efficiency of the OPR lightning air terminal is based on a specific initiation advance, well before the natural formation of an upward leader. The OPR generates a leader that rapidly propagates to capture the lightning and direct it to earth. Validated in the laboratory, this gain in time relative to the simple rod provides additional essential protection.

COMPLETE AUTONOMY

During a storm the ambient electric field may rise to between 10 to 20 kV/m. As soon as the field exceeds a threshold representing the minimum risk of a lightning strike, the OPR lightning terminal is activated from the ambient electric field the energy required to generate high voltage pulses, creating and propagating an upward leader. No other power sources are required, and no radioactive components are used.