Advanced Lightning Protection Simulation

DEHN Services – Engineering Service Datasheet

Service	**Advanced Lightning Protection Simulation using XGSLab acc. IEC 62305**
Part No.	**E17402**
Description	Advanced lightning protection simulations are usually conducted for special applications which are sensitive to down-time or damage-related costs. The simulation analyses what the impact would be when lightning strikes a particular system (PV, Wind Turbine, O&G Refinery etc.). The ground potential rise (GPR) following a lightning strike causes current to flow on conductive parts. The energy that reaches equipment can be checked to align with its capabilities and ensure effective protection. The process is carried out with advanced software called XGSLab, requiring computation power and time. The target simulation is set up by an engineer with parameters and methods defined in standards and research papers. A report is created showing the results.
Basis	IEC 62305 Edition 3.0 – Protection against Lightning (Intl) **Note: Unless clearly stated by the customer, the service will be carried out in accordance with the standard and current version applicable in the country in question. If the service is to be carried out in accordance with a different standard/version, this must be specified before the order is created.**
Outcomes	o Calculation of a target simulation, o Report of all results and possible next mitigation steps. Report as a .pdf document delivered electronically.
Prerequisites	Minimum: o Focus points/ areas of concern and target/ desired outcome, o Object or plant conductive part layout details, o Properties of all conductive parts, o Soil resistivity data/ measured using WENNER/ Schlumberger VES. All required details asked for in questionnaire form for accurate analysis.
Optional Additional Services	Soil Resistivity Testing / Measurement (Part No. E17102) to determine values required for an accurate Advanced Lightning Simulation.