

Document Information		
Document Name	CEN188_ Senior Test Engineer – HV System and Components	
Current Version	CEN188V1.001	
Author/Employee No.	CEN18800046	
Date of Creation	30/08/2026	
Confidential Level	CEN-ISM-1	
Restrictions:		
Note:	If you are not sure which ISMS Level your data or file have, please contact the SNTG-IT Helpdesk.	
	ism.188@smarnature.group	
CEN-ISM-0	Public Information	Information that everyone within and outside the organization can access.
CEN-ISM-1	Internal Information	Information that is accessible by all employees.
CEN-ISM-2	Restricted Information	Information that is available to most but not all employees.
CEN-ISM-3	Classified Information	Information that has restricted access as per law or regulation.
CEN-ISM-4	Confidential Information	Information that is protected as confidential by all entities included or impacted by the information. The RD Data should be applied to such data.
CEN-ISM-5	Confidential Information L2	Information that is protected as high confidential by all entities included or impacted by the information. The highest level of security measures should be applied to such data.

Change History				
Employee Code	Last Modified	Document Version	Chapter	Change Note
CEN18800046	30/08/2026	CEN188V1.001	all	document creation

Senior Test Engineer – HV System and Components (Environmental and Safety Tests) 高压系统与零部件高级测试工程师（环境测试与安全测试）

Working place: Tianjin

Recruiting number:1

Role overview

As a Senior Test Engineer for HV system and component tests, you will take end-to-end responsibility for environmental and safety testing of high-voltage components and systems for battery electric and plug-in hybrid vehicles. Based on DIN and ISO standards, you will define test strategies and test plans, specify test cases and test sequences, personally execute laboratory tests such as climatic, vibration, IP protection, dielectric and insulation tests, analyze results and author professional English test reports. Working closely with development, quality and functional safety teams as well as OEM customers, you will drive issue resolution and ensure that all test activities comply with the applicable DIN and ISO standards, laboratory safety regulations and customer specifications.

Key Responsibilities

- Develop test strategies and detailed test plans for environmental and safety tests of HV components and systems according to relevant DIN and ISO standards (e.g., ISO 16750, DIN EN 60068, ISO 20653, ISO 6469) and customer specifications.
- Define test specifications, test cases and test sequences, and derive test requirements from the design verification plan (DVP) and applicable standards.
- Set up, operate and maintain test equipment and laboratory infrastructure (climatic chambers, vibration and shock test systems, IP and salt spray test rigs, HV test benches with appropriate safety equipment).
- Personally execute environmental tests (temperature, humidity, thermal shock, vibration, shock, IP protection, salt spray, aging) and safety tests (dielectric strength, insulation resistance, HV interlock, protective conductor) according to DIN and ISO standards.
- Analyze test results and measurement data, identify failures and deviations, perform first-level root cause analysis and track issues together with development teams until closure.
- Author, review and release English test reports and test documentation that are precise, traceable and compliant with standards and OEM requirements.
- Ensure all test activities comply with laboratory safety regulations for high-voltage testing and with applicable DIN/ISO standards; support audits and assessments.
- Provide technical guidance and mentorship to junior test engineers, and drive continuous improvement of test processes, methods and equipment.

Qualifications & Requirements

Education

- Bachelor's degree or Master's degree in Electrical Engineering, Automotive Engineering, Mechatronics or a related field.
- Excellent fresh graduates with English as a working language are also welcome.

Professional Experience

- 4+ years of professional experience in testing of HV systems or automotive components, with proven test experience according to DIN and ISO standards (e.g., ISO 16750, DIN EN 60068, ISO 20653, ISO 6469, LV 124); the ability to personally execute hands-on tests is mandatory; OEM or Tier 1 supplier background preferred.
- Proven track record covering the full test process - test plan creation, test definition, test execution, results and failure analysis and English test report writing - across the development lifecycle up to series production.
- Willing and able to travel for test campaigns on specific road sections and at test sites in the surrounding regions.

Technical & Tool Proficiency

- In-depth knowledge of environmental test methods and standards (ISO 16750 series, DIN EN 60068 series, ISO 20653, LV 124) and of safety test methods for HV systems (e.g., ISO 6469, insulation coordination).
- Strong understanding of HV safety principles (dielectric strength, insulation resistance, protective bonding, HV interlock) and of laboratory HV safety regulations.
- Proficiency in operating and programming test equipment and data acquisition systems; scripting skills (e.g., Python or LabVIEW) for automated test sequences and data analysis.
- Good understanding of HV component technologies (e.g., BMS, OBC, inverter) and their failure modes under environmental stress.
- Experience with measurement technology (data loggers, HV measurement equipment, sensors) and with the analysis of large volumes of test data.
- Experience with test management and documentation tools (e.g., Polarion, DOORS, JIRA) and MS Office.

Language Proficiency

- Native proficiency in Chinese.
- Good command of written English is mandatory: able to read English technical documents and standards and to independently create English test reports; fluent spoken English is a plus but not a hard requirement.
- German language skills are a strong plus.

Core Competencies

- Strong analytical and systems thinking ability to structure complex test scopes and analyze failures.
- Structured working style, highly detail-oriented with strict standards for design quality and technical accuracy.
- Excellent communication and coordination skills to collaborate effectively with development teams, customers and suppliers.
- Proactive problem-solving mindset, able to independently identify test gaps and technical bottlenecks and drive resolution.
- Highly motivated, fast learner with an open mindset, able to manage multiple priorities in a fast-paced environment.

We are looking forward to your application! Please send us your complete application file in English mentioning your earliest possible entry date by e-mail to: careers@cenergy.asia

工作地点: 天津

招聘人数: 1 人

岗位概述

作为高压系统与零部件高级测试工程师，你将全面负责纯电动及插电混动汽车高压零部件与系统的环境测试与安全测试端到端工作。你将依据 DIN 与 ISO 标准制定测试策略与测试计划，定义测试用例与测试序列，亲自执行气候、振动、IP 防护、介电与绝缘等实验室测试，分析结果并撰写专业的英文测试报告。你将与开发、质量、功能安全团队及主机厂客户紧密协作，推动问题解决，确保所有测试活动符合适用的 DIN 与 ISO 标准、实验室安全法规及客户规范。

主要工作职责

- 依据相关 DIN 与 ISO 标准（如 ISO 16750、DIN EN 60068、ISO 20653、ISO 6469）及客户规范，制定高压零部件与系统环境测试与安全测试的测试策略与详细测试计划。
- 定义测试规范、测试用例与测试序列，并从设计验证计划（DVP）及适用标准中推导测试需求。
- 搭建、操作并维护测试设备与实验室基础设施（气候箱、振动与冲击试验系统、IP 及盐雾试验装置、配备相应安全防护的高压试验台）。
- 亲自依据 DIN 与 ISO 标准执行环境测试（温度、湿度、热冲击、振动、冲击、IP 防护、盐雾、老化）与安全测试（介电强度、绝缘电阻、高压互锁、保护导体）。
- 分析测试结果与测量数据，识别故障与偏差，开展第一层根本原因分析，并与开发团队跟踪问题直至闭环。
- 编写、评审并发布准确、可追溯、符合标准与主机厂要求的英文测试报告与测试文档。
- 确保所有测试活动符合高压测试实验室安全法规及适用的 DIN/ISO 标准；支持审核与评估。
- 为初级测试工程师提供技术指导与带教，推动测试流程、方法与设备的持续改进。

任职资格与要求

教育背景

- 电气工程、汽车工程、机电一体化或相关专业本科及以上学历。
- 能将英语作为工作语言的优秀应届毕业生也可投递。

专业经验

- 4 年以上高压系统或汽车零部件测试领域工程经验，具备符合 DIN 与 ISO 标准的测试经验（如 ISO 16750、DIN EN 60068、ISO 20653、ISO 6469、LV 124）；必须能够亲自开展动手测试；有主机厂或一级供应商背景优先。
- 具备覆盖测试全流程的成熟项目经验——测试计划制定、测试定义、测试执行、结果与失效分析及英文测试报告编写，贯穿开发周期直至量产。
- 愿意并能够接受周边区域特定路段及试验场地的测试出差安排。

专业技能与工具能力

- 深入掌握环境测试方法与标准（ISO 16750 系列、DIN EN 60068 系列、ISO 20653、LV 124），以及高压系统安全测试方法（如 ISO 6469、绝缘配合）。
- 深入理解高压安全原理（介电强度、绝缘电阻、保护接地、高压互锁）及高压实验室安全法规。

- 熟练操作并编程测试设备与数据采集系统；具备编写脚本（如 Python 或 LabVIEW）实现自动化测试序列与数据分析的能力。
- 较好地理解高压零部件技术（如 BMS、OBC、逆变器）及其在环境应力下的失效模式。
- 具备测量技术（数据记录仪、高压测量设备、传感器）及海量测试数据分析经验。
- 有 Polarion、DOORS、JIRA 等测试管理与文档工具使用经验，熟练使用 MS Office。

语言能力

- 中文母语水平，听说读写流利。
- 必须具备良好的英语读写能力：能够阅读英文技术文档与标准，并独立撰写英文测试报告；英语口语流利为加分项，不作硬性要求。
- 具备德语能力者优先。

核心胜任力

- 优秀的分析与系统思维能力，能够组织复杂的测试范围并开展失效分析。
- 工作方式结构化，注重细节，对设计质量与技术准确性有严格标准。
- 出色的沟通协调能力，可高效对接开发团队、客户与供应商。
- 积极主动的问题解决思维，能独立识别测试覆盖缺口与技术瓶颈并推动解决。
- 自驱力强，学习速度快，心态开放，能在快节奏环境中管理多项优先级任务。

我们诚挚期待您的申请！ 请将完整的英文申请材料（请注明最早可到岗日期）发送至邮箱：
careers@cenergy.asia