



试验装备 Testing Equipment

汽车类 Vehicles Part

公司概况

Company Introduction

中国电器科学研究院股份有限公司（CEI）始建于1958年，隶属于中国机械工业集团公司，现有员工2000余人，专业科技人员占员工总数的70%以上。经过半个多世纪的发展，中国电器院现已发展成为拥有3大基地、占地600多亩、建筑面积28万平方米的集科研开发、国家检测和科技产业为一体的国家级创新型科技企业。

中国电器科学研究院股份有限公司拥有中央研究院、国家重点实验室、国际合作基地等9个国家级科技研发平台。国家检测基地（威凯检测技术有限公司，CVC）是亚洲地区规模最大、能力及范围最广的电子电器产品检测中心，并与美、英等38个主要国家和地区检测机构达成数据互换认可，同时也是有关家用电器各类标准的研究与制定部门。

自上世纪80年代，中国电器科学研究院股份有限公司致力于研究、设计、生产各种冷热产品试验设备和环境模拟试验设备，并提供相关的技术服务，是中国最大的环境设备供应商之一。产品包括各种环境模拟类的大型试验室及小型箱体类测试设备。产品涉及的领域包括：家用电器、军工、汽车、环保、电力等行业，客户遍布亚洲、欧洲、北美洲、非洲等地区。90年代末，与日本著名企业大西热学建立技术合作伙伴关系。

秉承“创新为本、顾客至上”的经营理念，中国电器院始终以“满足国家、行业、企业的需求”为己任，成为能源、材料、工程、智能、评价、环境等六大科学领域不可替代的科研应用型研究机构和应用型技术创新平台。

China National Electric Apparatus Research Institute Co., Ltd. (CEI), which was established in 1958, belongs to China National Machinery Industry Corporation (SINOMACH). It has more than 2,000 employees, and professional scientific & technical personnel account for more than 70% of the total number of staff. With more than half a century of development, CEI has grown to become a national innovation enterprise which not only owns 3 bases, 600 mu areas and 280,000 square meters construction area, but also sets R&D, national testing and technology industry in one body.

CEI has 9 state-level science and technology research and development platforms including Central R & D Institute, The State Key Laboratory, International Cooperation Base and so on. The National Testing Base (Vkan Certification & Testing Co., Ltd., CVC), a subsidiary company of CEI, is the biggest electric and electrical testing organization with the widest capabilities and business scope in Asia, and co-operates with the testing organizations from more than 38 economies such as U.S.A. and U.K. in the field of test data exchange acceptance. Meanwhile, CVC is also a research and develop department of setting all kinds of standards that related to household electrical appliances.

Since the late 1980s, as one of the largest supplier of environmental control equipment in China, CEI has been dedicating to the research, designing and manufacturing of various kinds of testing equipment and environmental simulation equipment for cooling and heating products, and also supplying relevant technical service. Products include variety of environmental simulation of large testing lab and small testing box which cover household appliances, military-industry, automobile, environmental protection electric power, etc. Our customers are widely from Asia, Europe, America, Africa, and other countries or regions. In the late 1990s, CEI has established close technical cooperation with the well-known Japanese company "Ohnishi Netsugaku Co., Ltd".

Adhering to the philosophy of "innovation-oriented, customer first", China Electric Institute has always been committed to "meeting the needs of nation, industry and enterprise", and has become a driver, organizer and leader of national strategic and prospective application technology research as well as irreplaceable applied scientific research institution and applied technology innovation platform in energy, materials, engineering, intelligence, evaluation, environment area.



汽车试验设备 Automobile Testing Apparatus

带阳光模拟装置整车环境舱

The Climate Chamber With Integrated Solar Simulator

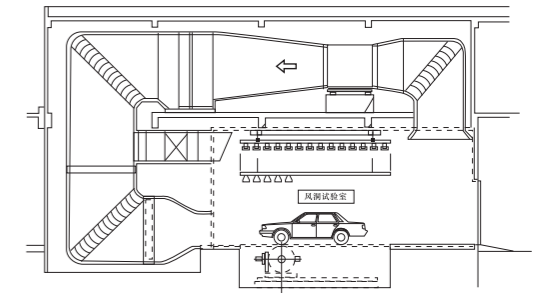
- ▶ 温度: -40 ~ 60℃, 湿度: 20 ~ 95%RH, 日照: 400 ~ 1200W/m²。
- ▶ Temperature: - 40 ~ 60 °C, humidity: 20 ~ 95% RH, sunshine: 400 ~ 1200 w/m².



汽车环境模拟风洞

Automobile Environmental Simulation Wind Tunnel

- ▶ 提供高低温环境、日照模拟、车速模拟, 用于实车空调性能、动力性能的研究、开发。
- ▶ It provides high & low temperature environmental, sunlight simulation and vehicle speed simulation, and it is used for research and development of the air conditioner performance and dynamic performance of the entire vehicle.



汽车试验设备可满足国标、美标、日标和欧盟标准。

Automobile testing apparatus meets the requirements of standards GB, EPA, Japan and EU. in real time, then produce visual or graphical report.

汽车排放试验室

Automobile Emission Testing Lab

- ▶ 为汽车尾气排放试验提供环境条件。满足欧洲Ⅲ-V排放标准检测要求。
- ▶ It provides environmental testing for automobile emission. It meets the requirements of Euro standard Ⅲ-V.



汽车振动试验室

Automobile Vibration Testing Lab

- ▶ 能够模拟车辆在恶劣道路行走时的振动，可缩短实车耐久行驶的试验时间，对车辆、部件的异响进行评价。
- ▶ It can simulate the vibration when automobile is running on vile road condition, can shorten the testing time of durability running and can evaluate the abnormal sound of automobiles and parts.



汽车试验设备可满足国标、美标、日标和欧盟标准。

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汽车低温环境试验室

Automobile Low-Temperature Environmental Testing Lab

- ▶ 用于汽车在低温环境下的冷启动性能、除雾除霜试验、材料老化试验。
- ▶ It can be used to test the igniting, defogging & defrosting test and material ageing test for automobile in low temperature environment.



汽车淋雨试验室

Automobile Rain Testing Room

- ▶ 用于测试汽车的防雨水性能及防渗透能力，同时检测整车车窗与天窗安装是否正常、密封性能是否可靠、安装方法是否正确，对整车防雨水性能进行评价。
- ▶ 设备适用标准：QC/T476、QC/T449。
- ▶ Used to test the automobile's rain proof and penetration performance, also used to detect the whole automobile's window and skylight installing is normal or not, sealed performance is reliable or not, installation method is correct or not, to evaluate the automobile the rain proof performance.
- ▶ Based on these standards: QC/T476、QC/T449.



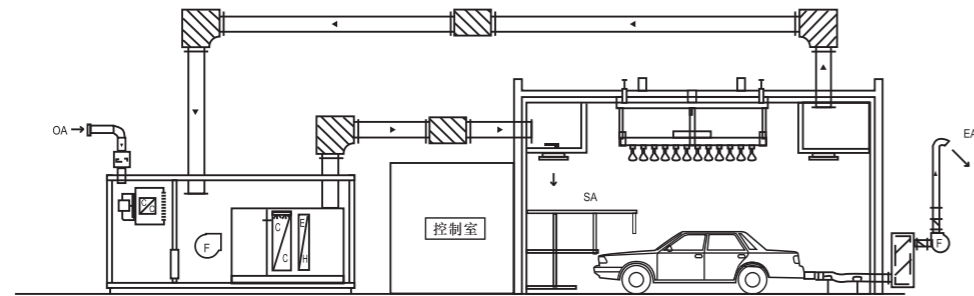
汽车试验设备可满足国标、美标、日标和欧盟标准。

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NVH试验室

NVH Testing Lab

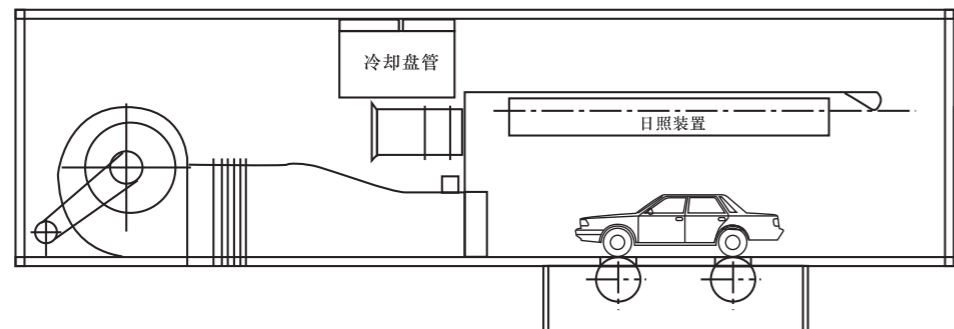
- ▶ 用于进行整车、发动机和动力总成的噪声、振动等试验。
- ▶ It can be used to test the noise and vibration of entire automobile, engine and dynamic assembly.



汽车空调环境试验室

Automobile Air-conditioning Environmental Testing Lab

- ▶ 可模拟汽车在道路上行驶时的温度、湿度、风速、日照等各种气候条件，检测汽车整车空调的性能。
- ▶ It can simulate kinds of climate conditions which automobile may meet such as temperature, humidity, wind speed and sunlight condition, and can be used to test automotive air conditioning performance.



发动机进气空调

Engine Intake Air Conditioner

- ▶ 为发动机试验提供规定温度、湿度的新风，满足发动机试验的燃烧空气的要求。
- ▶ It provides the fresh air with stipulated temperature and humidity for the engine testing and meets the requirement of combustion air.

汽车试验设备可满足国标、美标、日标和欧盟标准。

Automobile testing apparatus meets the requirements of standards GB, EPA, Japan and EU. in real time, then produce visual or graphical report.

氢燃料汽车防爆环境舱

Explosion-proof environment cabin for hydrogen-fueled automobile

- ▶ 氢燃料汽车防爆环境舱可满足30~150Kw的氢燃料汽车试验。带氢气检测系统，泄压风门，除静电球等安全保护系统。
- ▶ The explosion-proof environment cabin of hydrogen-fueled automobile can meet the test of 30-150 Kw hydrogen-fueled automobile. Safety protection system with hydrogen detection system, pressure relief valve, electrostatic ball etc.



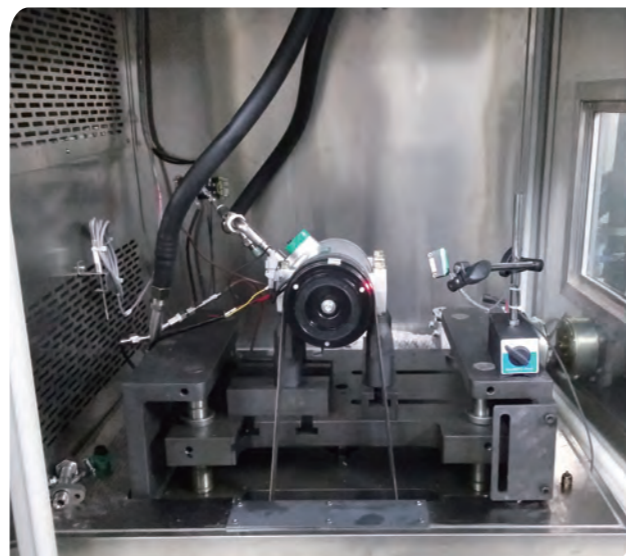
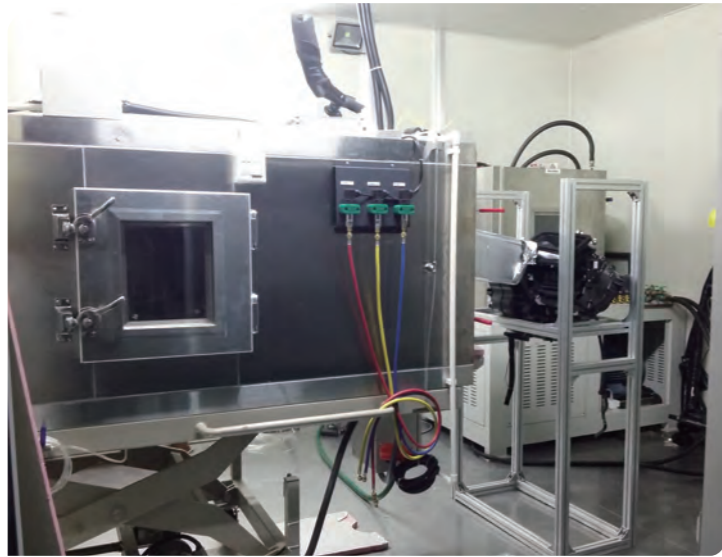
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汽车热管理系统综合性能实验室

Performance Testing Equipment Of Automobile Thermal Management System

- ▶ 本实验室可完成蒸发器、冷凝器、压缩机、整机空调系统、油冷器、中冷器、水箱散热器等性能测试，同时可完成实车空调系统、HVAC性能、温度线性、风量分配等热管理相关试验。
- ▶ 符合标准：JIS-D1618、QC/T656、QC/T657、QC/T634、QC/T468、GB/T21361-2008，GB/T21360-2008
- ▶ It can complete the performance test of evaporator, condenser, compressor, Automobile air conditioning, oil cooler, intercooler, radiator and so on. It can also complete the heat management related test of the real pipeline air conditioning system, HVAC performance, temperature linearity, air quantity distribution and so on.
- ▶ It conforms to the standards JIS-D1618、QC/T656、QC/T657、QC/T634、QC/T468、GB/T21361-2008，GB/T21360-2008.



汽车试验设备可满足国标、美标、日标和欧盟标准。

Automobile testing apparatus meets the requirements of standards GB, EPA, Japan and EU. in real time, then produce visual or graphical report.

汽车空调试验设备

Automobile Air Conditioner Testing Apparatus

轨道车辆&客车顶置式空调器试验室

Railway vehicle & Passenger Car Top Loading Air Conditioner Testing Lab

- ▶ 可真实模拟空调器实际运行状态，测量轨道车辆&客车顶置式空调器的性能和能力。
- ▶ 符合标准：GB/T 21361、QC/T 657、JIS-D1618。
- ▶ It can simulate the actual running state of air conditioner and test the performance and ability of air conditioner.
- ▶ It conforms to the standards GB/T 21361、QC/T 657、JIS-D1618.



汽车空调综合试验室

Automobile Air Conditioner Comprehensive Testing Lab

- ▶ 可对汽车空调的蒸发器、冷凝器、HVAC总成、压缩机等进行能力试验，同时也可进行暖风芯、水箱散热器及风机的能力试验。
- ▶ 符合标准：JIS-D1618、QC/T 656、QC/T 657、QC/T 634、QC/T 468。It can simulate the
- ▶ It can test the capability of automobile air conditioner's evaporator, condenser, HVAC assembly, compressor, etc. Meanwhile, it can also test the capability of heater core, water tank radiator and blower.
- ▶ It conforms to the standards JIS-D1618、QC/T 656、QC/T 657、QC/T 634、QC/T 468.



汽车空调压缩机噪音试验室和电机NVH测试系统

Noise Laboratory of Automotive Air Conditioning Compressor and NVH Testing System of Motor

- ▶ 本试验室是以全自动化控制的压缩机制冷替代系统为核心，结合电机NVH测试系统，可以实现测试汽车空调电动压缩机和皮带轮压缩机为一体的高精度智能噪音试验室。适用于开发R134a、R410A、R407C、R404A等常规制冷剂的压缩机，同时可以辅助整车上空调及发电机NVH问题排查，服务于整车NVH性能开发。实验过程实时在线检测压缩机的电压、电流、功率和噪声振动等参数，同时还能测试油循环率、压缩机转速以及系统各关键点的温度和压力值。
- ▶ 符合标准：JB/T6915、GB/T9098、GB/T15765、GB/T18429。
- ▶ This laboratory is a high-precision intelligent noise laboratory, which integrates the compressor refrigeration substitution system controlled by automation with the motor NVH testing system, to test the electric compressor of automobile air conditioning and the belt wheel compressor. It is suitable for the development of compressors with conventional refrigerants such as R134a, R410A, R407C, R404A, etc. It can also assist the vehicle air conditioning and generator NVH problem investigation, and serve the vehicle NVH performance development. The parameters of compressor such as voltage, current, power, noise and vibration can be measured on-line in the experimental process. At the same time, the oil circulation rate, compressor speed, temperature and pressure at key points of the system can be measured.
- ▶ It conforms to JB/T6915、GB/T9098、GB/T15765、GB/T18429.



汽车空调压缩机性能试验台

Automobile Air Conditioner's Compressor Performance Testing Bench

- ▶ 可测试汽车空调压缩机的能力、功耗和能效比等参数。
- ▶ 符合标准：GB/T 5773、JB/T 6915、QC/T 660。
- ▶ It can test the parameters of ability, power consumption, ratio of energy efficiency etc. of compressor of refrigerator and air conditioner.
- ▶ It conforms to the standards GB/T 5773、JB/T 6915、QC/T 660.



电动汽车空调压缩机寿命试验台

Durability Test Equipment For Compressor Of Electric Vehicle

- ▶ 参考标准：GB/T21360，GB/T 9098；
- ▶ 测试范围：制冷量在500 ~ 50000W范围；
- ▶ 试验类型：连续寿命试验，断续寿命试验。
- ▶ Notional standard: GB/T 21360, GB/T 9098;
- ▶ Test range: 500W ~ 50000W (Refrigerating capacity) ;
- ▶ Test Types: Continuous Durability Test, ON/OFF Test.



环境试验设备

Environmental Testing Apparatus

全天候环境模拟试验室

All-weather Environmental Simulation Testing Lab



- ▶ 本实验室可应用于汽车、风电、建材、电力、通信、纺织和农业等领域的基础材料、结构件和大型整体件的环境适应性测试。可根据用户需求模拟各种极端气候环境条件（高低温、日照、刮风、下雨、下雪等），并实时采集试验数据、生成可视化、图形化分析报告。
- ▶ This testing lab can be used for environmental adaptability test of basic material, structure, and Large-scale structure in the field of automotive, wind power, building materials, electricity, communicate, spinning, agriculture and others. It can simulate all kinds of extreme weather conditions such as high & low temperature, sunlight exposure, wind rain and snow, etc. According to the users' demands, it can also collect test data in real time, then produce visual or graphical report.

消声室

Anechoic Room

- ▶ 用于家用及类似用途电器的声压级和声功率级的测试及噪声振动特性的分析研究。可根据测试需要，对消声室内的工况环境条件进行调节控制。
- ▶ 符合标准：GB/T 6882、GB/T 4214.1、ISO 3745。
- ▶ It is used to test the level of sound pressure and the level of sound power of the household electrical equipment and similar electrical equipment. And to analyze the noise and vibration characteristic. The working conditions inside can be adjusted and be controlled according to the testing requirements.
- ▶ It conforms to the standards GB/T 6882, GB/T 424.1 and ISO 3745.



静音室/平板消声室

Panel Composite Sound Absorber Anechoic Room

- ▶ 可用于家电、汽车及其零部件的测试。针对实验室内部空间需求较为宽敞，环境需求较为整洁、耐污的测试情况，或者针对近似自由声场的测试标准。
- ▶ 符合标准：ISO 3745、ISO 3744、GB/T 6882、GB/T 3767。
- ▶ It can be used for testing home appliances, automobiles and their components. For test space where the internal space of the laboratory is more spacious, the environment needs to be more tidy and stain-resistant, or the test standard for the approximate free sound field.
- ▶ It conforms to the standards ISO 3745, ISO 3744, GB/T 6882, GB/T 3767.



混响室

Reverberation Room

- ▶ 用于家用及类似用途电器的声压级和声功率级的测试。
- ▶ 符合标准：ISO 3741、ISO 3742、ISO 3743、ISO 354、GB/T 6881、GBJ 47。
- ▶ It is used to test the level of sound pressure and the level of sound power of household electrical equipment and similar electrical equipment.
- ▶ It conforms to the standards ISO 3741, ISO 3742, ISO 3743, ISO 354, GB/T 6881 and GBJ 47.



消声风量室

Anechoic Air Volume Room

- ▶ 用于测试家用及类似用途电器产品的送风量和噪声之间的关系。
- ▶ 符合标准：GB 6882、GB/T 1236、ASHRAE 51。
- ▶ It is used to test the relationship between air output and noise of household electrical equipment or other similar electrical equipment.
- ▶ It conforms to the standards GB/T 6882, GB/T 1236 and ASHRAE 51.