



增达股份: ISO9001: 2015质量管理体系认证
ISO 9001: 2015 Certified Companies



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公司网站二维码
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公司地址

上海增达科技股份有限公司
上海市嘉定区江桥镇宝园七路135号
江苏增达试验科技有限公司
江苏省南通市苏通科技产业园区江山路678号
增达环境科技(苏州)有限公司
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Company Address

Shanghai Zundar Technology Co., Ltd.
No. 135, Baoyuan 7th Road, Jiangqiao Town, Jiading District, Shanghai
Jiangsu Zundar Test Technology Co., Ltd.
No. 678 Jiangshan Road, Sutong Science and Technology Industrial Park, Nantong City, Jiangsu Province
Zundar Environmental Technology Co., Ltd
No. 298, Jinshun Road, Jinxi Town, Kunshan City, Jiangsu Province

上海增达科技股份有限公司
SHANGHAI ZUNDAR TECHNOLOGY CO., LTD.



◎ 公司 Company	上海增达科技股份有限公司 Shanghai Zundar Technology Co., Ltd.
◎ 总资产 Total Assets	约2亿（截至2017年底） About 200 million RMB (Until End of 2017)
◎ 注册资本 The registered capital	4500万元 45 million RMB
◎ 员工 Employees	150人 150 people
◎ 国内销售及服务网点 Domestic Sales & Service network	北京, 上海, 广州, 长春, 西安, 武汉, 成都 Beijing, Shanghai, Guangzhou, Changchun, Xian, Wuhan, Chengdu
◎ 公司理念 Values	科技领先、质量第一、价格合理、服务优良 Leading technology, Best quality, Reasonable price, Excellent service

2014年 / Year 2014

独立研发了一系列针对汽车试验的复杂环境试验箱，为行业内提供领先的技术解决方案；

包括全光谱阳光模拟环境仓；整车排放试验仓；整车VOC测试仓；配合大台面电磁振动台、MAST多轴振动台、4-Poster四立柱系统的环境仓等；

Independent Development of state-of-the-art solution for Integrative vehicle test, include:

Drive-in Full-Spectrum Solar Simulation Chamber, Emission Test Chamber, Vehicle VOC Test Chamber, Climatic Chamber with Vibration Shaker, MAST System/ 4-Poster System;

2015年 / Year 2015

江苏增达试验科技有限公司系上海增达科技股份有限公司于2015年12月投资设立的全资子公司，注册资本：人民币5,000万元，坐落于江苏省南通市苏通科技产业园，计划产能800台标准环境试验箱。

Jiangsu Zundar Test Technology Co.,Ltd. is a wholly - owned subsidiary company invested by Shanghai Zundar Technology Co., Ltd. in December 2015. Its registered capital is RMB 50 million. It is located in Sutong Science and Technology Industrial Park, Nantong City, Jiangsu Province, with a planned capacity of 800 standard climatic chambers.

2016年 / Year 2016

中方完成对ATT股份收购，公司进行股份制改革，并更名为上海增达科技股份有限公司。

Chinese parties obtained ATT shares, and finished shareholding reform. Company name changed into Shanghai Zundar Technology Co., Ltd

2016-2017年 / Year 2016-2017

嘉定区先进制造业发展潜力奖

The Advanced Manufacturing Development Potential Award of Jiading District.

2017年 / Year 2017

增达环境科技（苏州）有限公司系上海增达科技股份有限公司于2017年11月投资设立的全资子公司，注册资本：人民币4000万元，坐落于江苏省昆山市锦溪镇锦顺路298号，定位为增达股份的非标准化产品生产基地。

Zundar Environmental Technology Co., Ltd. is a wholly -owned subsidiary company invested by Shanghai Zundar Technology Co., Ltd. in November, 2017. The registered capital is RMB 40 million. It is located in No. 298 Jinshun Road, Jinxi Town, Kunshan City, Jiangsu Province. It is positioned as the non-standardized production base of Zundar shares.



01

2013年 / Year 2013

上海增达环境试验设备有限公司与意大利ATT集团合资成立安吉拉通力增达（上海）试验设备有限公司；
Shanghai Zundar Environmental Test Equipment Co.,Ltd.of Angelantoni-Zundar(Shanghai) Test Equipment Co.,Ltd.a joint venture with Angelantoni Test Technologies;

02

2014年 / Year 2014

三体系认证：

ISO9001: 质量管理体系

ISO14001: 环境管理体系

OHSAS18001: 职业健康安全管理体系

Certificate Of Conformity

ISO9001: Quality Management System

ISO14001: Environmental Management System

OHSAS18001: Occupational Health And Safety Management System

03

04

05

2015年 / Year 2015

取得上海市高新技术企业荣誉

Shanghai high and new technology enterprise honor

06

07

2016年 / Year 2016

登陆新三板，股票代码838886

Listed on National Equities Exchange and Quotations, Stock Code 838886

08

09

2017年 / Year 2017

获评2017年度上海市科技小巨人培育企业

Shanghai Science and Technology Little Giants Cultivation Enterprise

10



上海增达科技股份有限公司（以下简称“增达股份”或“公司”）是一家专业从事环境和气候模拟试验设备研发与生产的高新技术企业。为满足公司业务发展的需要，2015 年底，增达股份在江苏省南通市苏通科技产业园投资设立全资子公司江苏增达试验科技有限公司（以下简称“江苏增达”），作为提供各类标准环境试验箱及标准化半成品的生产基地。2017 年底，增达股份在江苏省苏州市昆山锦溪镇投资设立全资子公司增达环境科技（苏州）有限公司（以下简称“增达苏州”），作为提供各类非标准环境试验设备的生产基地。由此逐步形成上海总部及研发和销售中心为主体，南通和昆山两个生产基地为双翼的腾飞态势。

增达股份拥有较为突出的环境模拟试验设备研发、设计、生产能力以及丰富的项目实施经验，业务与产品覆盖范围广泛，公司除了能够提供标准的各类温（湿）度试验箱、快速温变（湿热）试验箱、高温试验箱、低气压试验箱、步入式温（湿）度试验箱、温度冲击试验箱、盐雾腐蚀试验箱、沙尘和淋雨试验箱等常规的环境试验设备之外，还能够根据客户的需求设计和制造深冷试验箱、各类非标试验箱、红外线及全光谱阳光模拟试验箱、步入式温（湿）度试验箱、车入式温（湿）度试验箱、整车排放试验仓、整车空调性能试验仓、安全气囊点爆试验仓、汽车冷启动试验仓、三综合试验箱、VOC检测试验箱、汽车道路模拟试验仓、MAST振动台环境试验仓、压力波动试验箱、风量测试台架以及环境风洞等。公司所生产的环境模拟试验设备在制冷技术、空气调节技术、综合控制技术和箱体结构技术上均处于国内外领先水平。

增达股份求实创新、砥砺奋进，2015 年取得上海市高新技术企业资格，2016 年度和 2017 年度均荣获嘉定区先进制造业发展潜力奖，2017 年位列上海市科技小巨人培育企业立项名单，同时，公司 2017 年已实现产值过亿、纳税过千万、拥有员工超过 150 人。经过四年的高速发展，增达股份在规模、效益、管理、技术、团队、规范性等方面，均已成长为国内气候环境模拟试验细分领域的典型代表。

未来已来，增达股份立足上海、放眼世界，以成为国内细分行业的领导者为目标，坚持技术为先、人才为本的理念，凭借诚实守信的作风、领先创新的技术、稳定可靠的产品、优质高效的服务，竭诚为客户提供满意的环境与可靠性试验设备及解决方案，为员工提供舒心的工作环境和广阔的职业平台，为国家地方的经济发展贡献力量并承担企业应尽的社会责任。

Shanghai Zundar Technology Co., Ltd. (hereinafter referred to as "Zundar" or "Company") is a high-tech enterprise specializing in R&D and production of climatic simulation test equipment. In order to meet the needs of the company's business development, at the end of 2015, Zundar invested in the establishment of a wholly-owned subsidiary corporation, Jiangsu Zundar Test Technology Co., Ltd. (hereinafter referred to as "Jiangsu Zundar") in Sutong Science and Technology Industrial Park, Nantong City, Jiangsu Province. Jiangsu Zundar provides the standard climatic test chambers and standardized semi-finished products. At the end of 2017, Zundar invested in the establishment of a wholly-owned subsidiary corporation, Zundar Environmental Technology Co., Ltd. (hereinafter referred to as "Zundar Suzhou"), in Jinxi Town, Kunshan City, Jiangsu Province. Zundar Suzhou provides non-standard climatic testing equipment. As a result, Shanghai headquarter with R&D and sales center have gradually formed the main body. The two production bases in Nantong and Kunshan are the twin wings.

Zundar has rich experience in climatic simulation test equipment research and development, design, production capacity and project implementation. The business and product coverage are wide. The company can provide standard climatic test chamber, speedy climatic chamber, high temperature oven, vacuum test chamber, walk-in climatic test chamber, thermal shock test chamber, salt corrosion test chamber, dust and rain test chamber, etc. In addition, we can design and manufacture extremely low-temperature test chamber, various non-standard test chamber, infrared and full-spectrum solar simulation test chambers walk-in climatic test chambers, and drive-in climatic test chamber, vehicle emission test chamber, vehicle air conditioning performance test chamber, airbag deployment test chamber, vehicle cold start test chamber, climatic & vibration integrated test chamber, VOC inspection test chamber, four-poster test chamber, MAST system test chamber, pressure fluctuation test chamber, air flow test bench and climatic wind tunnel. The climatic simulation test equipment produced by the company is at the leading level of refrigeration technology, air conditioning technology, integrated control technology and chamber structure technology.

Zundar is realistic, innovative and enterprising. In 2015, Zundar obtained the qualification of Shanghai High-tech Enterprise. In 2016 and 2017, Zundar was awarded the Advanced Manufacturing Development Potential Award of Jiading District. In 2017, Zundar was listed in the list of Shanghai Science and Technology Little Giants Cultivation Enterprise. In 2017, Zundar achieved an output value of more than 100 million, over 10 million taxes, and more than 150 employees. After four years of rapid development, Zundar has grown into a representative enterprise of the domestic climatic simulation test field in terms of scale, benefit, management, technology, team and compliance.

In the future, Zundar bases in Shanghai and keeps the world in view. With the goal of becoming a leader in the domestic industry, Zundar adheres to the concept of technology first and talent-oriented. Zundar bases on honest and trustworthy style, leading innovative technology, stable and reliable products and high-quality and efficient services, to dedicate providing customers with satisfactory climatic and reliability testing equipment and solution, to provide the employees with a comfortable working environment and a broad career platform, to contribute to the national and local economic development and to undertake the social responsibility as an enterprise.





◎ 企业荣誉

经过近几年的发展，公司已建立一套完善的、符合ISO9001质量管理体系，为各界用户提供高性能、高质量、高效率的产品和服务。公司服务承诺：为用户提供的产品满足GB/T2423、GJB150、JJF1101的试验标准要求，亦可满足IEC和MIL相关标准的要求，此外可根据用户的特殊需求设计制造相关的试验标准，公司可以根据用户要求，提供产品出厂计量标定、技术培训等服务，产品出厂后出现质量问题，公司保证24小时内响应。

另外，作为一家对社会、环境和安全负责的企业，我们还持续有效地运行了ISO 140001环境管理体系和OHSAS 18000职业与健康安全体系。

As a result of recent years' continual development, we have built up a set of increasingly comprehensive quality management system according to ISO9001 to provide products and service with high performance, high quality and high efficiency for customers. Our company promises to provide products according with standards such as GB/T2423, GJB150, JJF1101, IEC, MIL, ISO etc. Besides, we can custom the test chamber as the customer requirements. we also provide top quality after-sale services to meet consumer satisfaction such as calibration and technical training etc. A response within 24 hours malfunction after shipment is Zundar's full commitment for customers.

Moreover, as an responsible enterprise for society, environment and staff safety, we continue operating effectively environmental management system ISO 140001 and professional & health safety system OHSAS18000.



1 标准产品 Standard Product

- EXPLORE系列环境试验箱
EXPLORE Series Climatic Chamber
- EXPLORE-ESS快速温变试验箱
EXPLORE-ESS Series Speedy Climatic Chamber
- EXPLORE-HEAT高温试验箱
EXPLORE-HEAT Series High Temperature Oven
- EXPLORE-DEEFPREEZE深冷试验箱
EXPLORE-DEEFPREEZE Series Deep Cold Test Chamber
- 冷热温度冲击试验箱
Thermal Shock Chamber
- 阳光模拟试验箱
Solar Simulation Chamber
- 外壳防护等级试验箱
IP Code Test Chamber
- 淋雨试验箱
Rain Test Chamber
- 沙尘试验箱
Dust Test Chamber
- 步入式环境试验箱
Walk-in Climatic Chamber
- 低气压试验箱
Vacuum Test chamber

2 解决方案 Solutions

- 整车环境试验仓
Drive-in Climatic Test Chamber
- 步入式整车环境仓
Drive-in Climatic Chamber
- MAST振动台环境仓
Climatic Chamber with MAST System
- 道路模拟环境仓
Climatic Chamber with Four Poster System
- 整车阳光模拟和红外模拟试验仓
Drive-in Solar Simulation and Infrared Simulation Test Chamber
- 汽车性能测试仓和发动机性能测试仓
Vehicle Performance Test Chamber and Engine Performance Test Chamber
- 气囊静态展开环境仓解决方案
Climatic Chamber Solution for Airbag Static Deployment
- 整车VOC测试仓
Vehicle VOC Test Chamber
- 三综合环境箱
Climatic Chamber with Vibration Shaker
- 电池试验箱
Battery Test Chamber
- 电机试验箱
Motor Test Chamber

Standard Climatic Chamber

标准温湿度试验箱



标准配置

Standard Configuration

- 电缆孔带硅胶塞 $\Phi 80\text{mm} \times 1$ /Cable port with silicon plug $\Phi 80\text{mm} \times 1$
- 内部照明/Internal lighting
- 水冷冷凝方式/Water cooled condenser
- USB接口及历史数据回放及转换软件/USB interface and history data review and converting software

可选配置

Optional Configuration

- 指定其他箱体尺寸/Other chamber interior size
- 其他温度范围/Other temperature range
- 电缆孔带硅胶塞 $\Phi 50\text{mm}$, $\Phi 100\text{mm}$ /Cable port with silicon plug $\Phi 50\text{mm}/\Phi 100\text{mm}$
- 隔板/Shelf
- 风冷冷凝方式/Air cooled condenser
- 外部插座 220V 10A/Exterior socket 220V 10A
- LAN接口及远程控制软件/LAN interface and remote control software

- 远程集中控制软件/Remote integration control for multi chambers
- 数字量输入报警接口x4/Digital alarm input channels x 4
- 数字量输出继电器接口x4 (试验品用)/Auxiliary relay digital output channels x 4 (for specimens)
- 额外模拟量采集通道x4 数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选)
Additional analog sampling channels x 4, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V)
- 额外模拟量采集通道x8 数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选)
Additional analog sampling channels x 8, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V)
- 模拟量输出通道x4 (设定温度, 设定湿度, 采样温度, 采样湿度)
Analog output channels x 4 (Setting temperature/Setting humidity/Measured temperature/Measured humidity)
- 外部模拟量控制温湿度 (4~20mA, 0~10V, -10V~10V可选)
Exterior analog input channels control temperature and humidity (Option: 4~20mA, 0~10V, -10V~10V)
- 干燥新风补偿/Compressed dry air purging system
- 自动净水器/Automatic water purification system
- 试品温度控制/Temperature control on test specimen

标准温湿度试验箱 Standard Climatic Chamber

www.zengda.com

EXPLORE系列环境试验箱 EXPLORE Series Climatic Chamber

		型号 ¹ MODEL ¹	EEXT(H)250	EEXT(H)340	EEXT(H)600	EEXT(H)1000	EXT(H)1000
1: EEXT和EXT无湿度功能 EEXT and EXT has no humidity control	有效容积 (升) Useful Capacity(l)		225	337	573	1000	1000
	内部尺寸 Internal Dimensions approx.(mm)	宽度 Width	600	600	850	1000	1000
2: L系列采用单级制冷系统, U系统采用复叠制冷系统 L Series use single stage refrigeration system U Series use cascade refrigeration system	外部尺寸 External Dimensions approx.(mm)	深度 Depth	500	750	750	1000	1000
		高度 Height	750	750	900	1000	1000
3: 最高温度和最低温度之间的平均速率 (无负载, 无散热, 参考IEC60068-3-5及IEC60068-3-6) Average speed between highest and lowest temperature (Without load or heat dissipation, according to IEC 60068-3-5 and IEC 60068-3-6)	温度范围 Temperature Range	L Series ²	-40°C~+150°C (最高温度+180°C可选/with option to 180°C)				
		U Series ²	-70°C~+150°C (最高温度+180°C可选/with option to 180°C)				
4: 性能指标在室温为+25°C时测定; 传感器位于空气处理单元出风口 Performance data refer to +25°C ambient temperature; The control sensors are installed at the blow-out of air conditioning unit	升温速率 ³⁺⁴ Heating up rate ³⁺⁴	L Series(-40~+150)	4.4°C/min	4.2°C/min	4.2°C/min	4.5°C/min	4.5°C/min
	降温速率 ³⁺⁴ Cooling down rate ³⁺⁴	L Series(+150~-40)	2.6°C/min	2.4°C/min	2.6°C/min	2.2°C/min	3.2°C/min
	湿度范围 Humidity Range		+10°C~+90°C 10%~98%RH				
	露点温度范围 Dewpoint temperature range		+4°C~+88°C				
	电源 Power Supply		交流380V 50赫兹 三相+N+PE AC380V 50Hz 3P+N+PE				
	最大功率 Maximum Power (KW)	L Series	5.5	5.5	7.5	12	14
		U Series	7	7	10	16	18

EXPLORE-ESS快速温变试验箱 EXPLORE-ESS Series Speedy Climatic Chamber

		型号 ¹ MODEL ¹	EXT(H)600U	EXT(H)1000U	EXT(H)2000U
1: EXT无湿度功能 EXT has no humidity control	有效容积 (升) Useful Capacity(l)		573	1000	1980
	内部尺寸 Internal Dimensions approx.(mm)	宽度 Width	850	1000	1100
2: 10-ESS系列升降速率10°C/min; 15-ESS系列升降速率15°C/min 10-ESS series has rate of change at 10°C/min; 15-ESS series has rate of change at 15°C/min;	外部尺寸 External Dimensions approx.(mm)	深度 Depth	750	1000	1200
		高度 Height	900	1000	1500
3: 最高温度和最低温度之间的平均速率 (无负载, 无散热, 参考IEC60068-3-5及IEC60068-3-6) Average speed between highest and lowest temperature (Without load or heat dissipation, according to IEC 60068-3-5 and IEC 60068-3-6)	温度范围 Temperature Range		-70°C ~ +150°C (最高温度+180°C可选/with option to +180°C)		
		升温速率 ³⁺⁴ Heating up rate ³⁺⁴	10-ESS Series ²	10°C/min	10°C/min
4: 性能指标在室温为+25°C时测定; 传感器位于空气处理单元出风口 Performance data refer to +25°C ambient temperature; The control sensors are installed at the blow-out of air conditioning unit	湿度范围 Humidity Range	15-ESS Series ²	15°C/min	15°C/min	15°C/min
		降温速率 ³⁺⁴ Cooling down rate ³⁺⁴	10-ESS Series ²	10°C/min	10°C/min
		15-ESS Series ²	15°C/min	15°C/min	15°C/min
	露点温度范围 Dewpoint temperature range		+4°C~+88°C		
	电源 Power Supply		交流380V 50赫兹 三相+N+PE AC380V 50Hz 3P+N+PE		
	最大功率 Maximum Power (KW)	10-ESS Series ²	22	32	40
		15-ESS Series ²	32	40	54

EXPLORE高温试验箱 EXPLORE-HEAT Series High Temperature Oven

		型号 ¹ MODEL ¹	EXHEAT250	EXHEAT340	EXHEAT600	EXHEAT1000
3: 最高温度和最低温度之间的平均速率 (无负载, 无散热, 参考IEC60068-3-5及IEC60068-3-6) Average speed between highest and lowest temperature (Without load or heat dissipation, according to IEC 60068-3-5 and IEC 60068-3-6)	有效容积 (升) Useful Capacity(l)		225	337	573	1000
	内部尺寸 Internal Dimensions approx.(mm)	宽度 Width	600	600	850	1000
4: 性能指标在室温为+25°C时测定; 传感器位于空气处理单元出风口 Performance data refer to +25°C ambient temperature; The control sensors are installed at the blow-out of air conditioning unit	外部尺寸 External Dimensions approx.(mm)	深度 Depth	500	750	750	1000
		高度 Height	750	750	900	1000
	温度范围 Temperature Range		RT+10°C+250°C			
	升温速率 ³⁺⁴ Heating up rate ³⁺⁴		4°C/min	4°C/min	4°C/min	4°C/min
	电源 Power Supply		交流380V 50赫兹 三相+N+PE AC380V 50Hz 3P+N+PE			
	最大功率 Maximum Power (KW)		4	4	7	7

EXPLORE-DEEFPREEZE深冷试验箱 EXPLORE-DEEFPREEZE Series Deep Cold Test Chamber

		型号 MODEL	EXT250	EXT600	EXT1000
2: D1系列最低温度-80°C; D2系列最低温度-90°C; D3系列最低温度-100°C D1 Series reach -80°C; D2 Series reach -90°C; D3 Series reach -100°C;	有效容积 (升) Useful Capacity(l)		225	573	1000
	内部尺寸 Internal Dimensions approx.(mm)	宽度 Width	600	850	1000
3: 最高温度和最低温度之间的平均速率 (无负载, 无散热, 参考IEC60068-3-5及IEC60068-3-6) Average speed between highest and lowest temperature (Without load or heat dissipation, according to IEC 60068-3-5 and IEC 60068-3-6)	外部尺寸 External Dimensions approx.(mm)	深度 Depth	500	750	1000
		高度 Height	750	900	1000
4: 性能指标在室温为+25°C时测定; 传感器位于空气处理单元出风口 Performance data refer to +25°C ambient temperature; The control sensors are installed at the blow-out of air conditioning unit	温度范围 Temperature Range		-80°C~+100°C		
		D1 Series ²	-80°C~+100°C		
		D2 Series ²	-90°C~+100°C		
		D3 Series ²	-100°C~+100°C		
	降温速率 ³⁺⁴ Cooling down rate ³⁺⁴	D1 Series ²	1.2°C/min	1.2°C/min	1°C/min
		D2 Series ²	1.2°C/min	1°C/min	1°C/min
		D3 Series ²	1°C/min	1°C/min	1°C/min
	电源 Power Supply		交流380V 50赫兹 三相+N+PE AC380V 50Hz 3P+N+PE		
	最大功率 Maximum Power (KW)	D1 Series ²	D1 Series ²		
		D2 Series ²	D2 Series ²		
		D3 Series ²	D3 Series ²		

Thermal Shock Chamber

冷热温度冲击试验箱



标准配置

Standard Configuration

- 脚轮/Castors (AZTS27-2T, AZTS110-2T, AZTS200-2T, AZTS320-2T)
- 照明/Lighting
- 高温区观察窗/Inspection window of hot zone
- USB接口及历史数据回放及转换软件/USB interface and history data review and converting software

可选配置

Optional Configuration

- 电缆孔带硅胶塞Φ25mm/Cable port with silicon plug Φ25mm
- 隔板/Shelf
- 低温区观察窗/Inspection window of cold zone
- 水冷冷凝方式/Water cooled condenser (AZTS27-2T, AZTS110-2T)
- 外部插座 220V 10A/Exterior socket 220V 10A
- LAN接口及远程控制软件/LAN interface and remote control software
- 高低温区单独运转作为常温箱使用/Hot zone or cold zone independent operation as constant temperature chamber

- 数字量输入报警接口x4/Digital alarm input channels x 4
- 数字量输出继电器接口x4 (试验品用)/Auxiliary relay digital output channels x 4 (for specimens)
- 额外温度采集通道x1 用于测量试验品温度 数据可储存回放(T型热电偶)
Additional temperature sampling channels x 1, for sampling temperature of test specimen, data can be reviewed and recorded (T thermocouple)
- 根据试验品温度切换高低温区功能
Switching the test zone according to the test specimen temperature
- 额外模拟量采集通道x4 数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选)
Additional analog sampling channels x 4, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V)
- 额外模拟量采集通道x8 数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选)
Additional analog sampling channels x 8, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V)
- 模拟量输出通道x3 (设定高温, 设定低温, 采样温度)
Analog output channels x 3 (Setting high temperature/Setting low temperature/Measured temperature)
- 干燥新风补偿/Compressed dry air purging system
- 提篮由电机驱动/Basket driven by electrical motor

冷热温度冲击试验箱 Thermal Shock Chamber

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冷热温度冲击试验箱 Thermal Shock Chamber

冷热冲击两箱试验箱

试验提篮：垂直移动或水平移动

机械运动：气缸推动或链条拉拽

Thermal Shock Chamber (Two Room)

DUT is placed inside basket, basket can be moved vertically or horizontally.

By pneumatic cylinder or electrical motor.



型号 Model	AZTS100-2T	AZTS150-2T	AZTS200-2T	AZTS300-2T	AZTS500-2T	AZTS1000-2T
电源 Power Supply	交流380V 50赫兹 3相+N+PE AC 380V 50HZ 3 phase+N+PE					
最大功率 Maximum Power (KW)	20	25	29	35	45	55
使用环境温/湿度 Operation Environment	+15°C ~ +35°C/≤85%RH					
形式 Type	两箱式 Two Zone					
提篮驱动方式 Basket moving mechanism	气动方式, 或者电机驱动 Pneumatic Drive or Electrical Motor Drive					
提篮运动方向 Basket moving direction	垂直方向 Vertical direction			水平方向 Horizontal direction		
最大提篮负载 Maximum Basket Load	16kg	20kg	30kg	35kg	100kg	150kg
提篮转换时间 Basket Transfer Time	<10S					
性能*1 Performance*1	温度范围 Temperature Range	低温区:-70°C ~ -10°C; 高温区:环境温度+20°C ~ +180°C Cold Zone: -70°C ~ -10°C, Hot Zone: Amb+20°C ~ +180°C				
	温度波动度 Temperature Fluctuation	高温箱:设定值的±1%或者±1°C,取大者; 低温箱:±1°C Hot Zone: ±1% of set point or ±1°C, whichever is greater; Cold Zone: ±1°C;				
	温度偏差 Temperature Deviation	≤ ± 2°C				
	恢复时间为2分钟的 温度及负载条件 Test condition with load for 2 minutes recovery time	带2.5kg铁-55°C/+125°C -55°C/+125°C with 2.5kg Fe	带5kg铁-55°C/+125°C -55°C/+125°C with 5kg Fe	带10kg铁-55°C/+125°C -55°C/+125°C with 10kg Fe	带15kg铁-55°C/+125°C -55°C/+125°C with 15kg Fe	带25kg铁-55°C/+125°C -55°C/+125°C with 25kg Fe
根据目前检测情况 -65度5分钟不能达标 Test condition with load for 5 minutes recovery time	带0.5kg铁-65°C/+150°C -65°C/+150°C with 0.5kg Fe	带2.5kg铁-65°C/+150°C -65°C/+150°C with 2.5kg Fe	带4kg铁-65°C/+150°C -65°C/+150°C with 4kg Fe	带7kg铁-65°C/+150°C -65°C/+150°C with 7kg Fe	带13kg铁-65°C/+150°C -65°C/+150°C with 13kg Fe	带30kg铁-65°C/+150°C -65°C/+150°C with 30kg Fe
观察窗 Inspection Window	多层导电膜加热 观察窗, 尺寸 W240mmxH310mmx1 Multilayer glasses with conducting film heating, size W240mmxH310mmx1		多层导电膜加热观察窗, 尺寸W470mmxH320mmx1 Multilayer glasses with conducting film heating, size W470mmxH320mmx1			
控制器 Controller System	AZ-1000控制仪表集成西门子S7可编程控制器 AZ-1000 controller integrated with Siemens S7 PLC					
调温方式 Temperature Control Mode	独立的冷端和热端PID调节, 热量和冷量均可连续调节 Independent PID regulation of consecutive cooling and heating capacity					
冷凝方式 Condenser	水冷冷凝器 Water-cold condenser	水冷冷凝器 Water-cold condenser	水冷冷凝器 Water-cooled condenser	水冷冷凝器 Water-cooled condenser	水冷冷凝器 Water-cooled condenser	水冷冷凝器 Water-cooled condenser
提篮内容积 (升) Interior Capacity (L)	102	148	205	294	506	960
内尺寸 Interior Size	W(mm)	510	510	620	700	1000
	D(mm)	400	580	660	700	800
	H(mm)	500	500	500	600	900
外尺寸 Exterior Size	W(mm)	1000	1000	1100	1200	4700
	D(mm)	2100	2300	2400	2650	2100
	H(mm)*2	2700 (1900)	2700 (1900)	2700 (1900)	3000 (2100)	1950 (1650)

*1: 性能指标在室温为+25°C时测定;传感器处于空气处理单元出风口;

All the above specifications are measured at +25°C room temperature and the sensors are installed at blow-out of air conditioning unit;

*2: 括号中的数字代码拆除气缸 (风机电机) 之后的高度;

The number in the brackets are the net height excluding the pneumatic cylinder (fan motor);

阳光模拟试验箱 Solar Simulation Chamber

阳光模拟试验箱 Solar Simulation Chamber

小型阳光模拟试验箱:

容积: 600L ~ 10m³

温度范围: -40°C ~ +90°C

湿度范围: 10% ~ 98%RH

辐照度范围: 400 ~ 1200W/m²

紫外, 可见光, 红外辐射; 光谱分布接近CIE85; Table 4

多变量控制, 可以控制辐照光强或者黑标表面温度

适用标准: DIN75220, PR306.5, MIL-STD-810 Method 505.4

特殊设计的结构, 更好保护精密的辐照系统

Small size solar simulation chamber

Volume: 600L~10m³

Temperature: -40°C ~ +90°C

Humidity: 10% ~ 98%RH

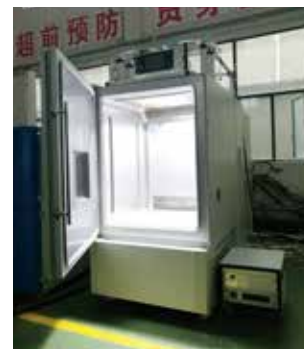
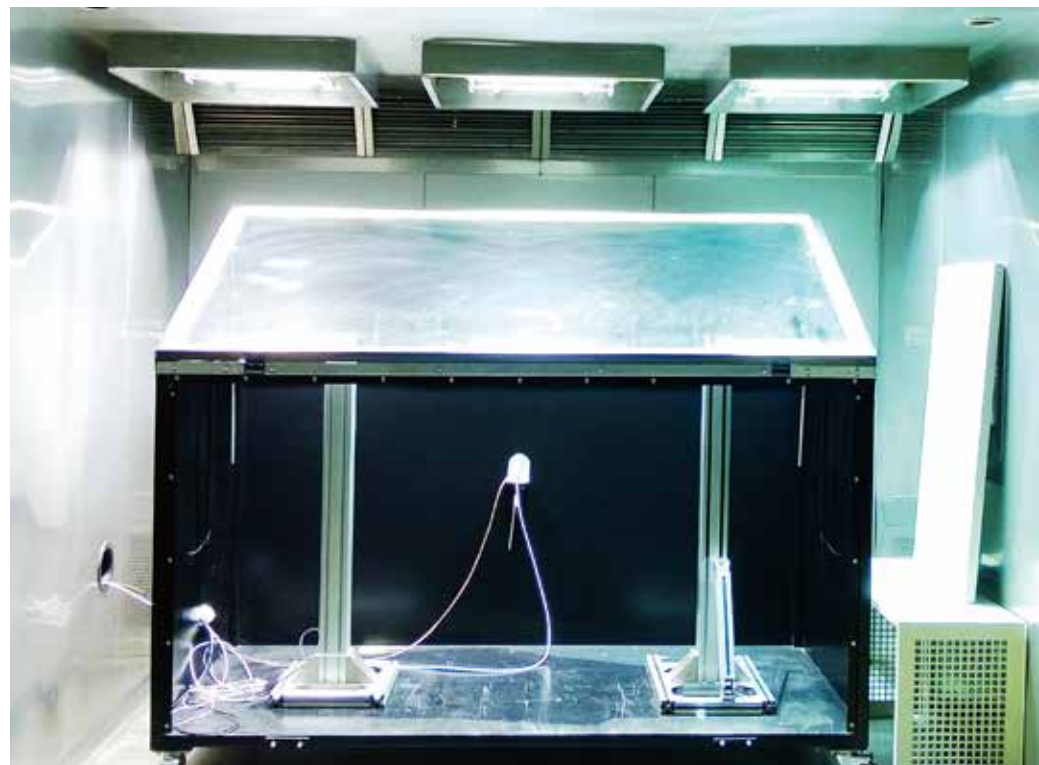
Irradiance: 400 ~ 1200W/m²

UV/Visible/Infrared Radiation, close to CIE85; Table 4

Multi-variables control logic, feedback control based on irradiation intensity or black standard temperature;

Test standard: DIN75220, PR306.5, MIL-STD-810 Method 505.4

Designed mechanical structure to protect the solar simulation lamp.



	型号 Type	EXTH1000L-SO	AZTH2.5L-SO
有效容积 (升) Useful Capacity(l)		608	993
内部尺寸 Internal Dimensions approx.(mm)	宽度Width	950	2000
	深度Depth	950	1150
	高度Height	1100	1510
外部尺寸 External Dimensions approx.(mm)	宽度Width	1200	2400
	深度Depth	2500	1920
	高度Height	2800	2900
温度范围 Temperature Range °C	无阳光模拟 without solar simulation	-40°C ~ +150°C	
	有阳光模拟 with solar simulation	-20°C ~ +100°C	
湿度范围 Humidity Range %RH	无阳光模拟 without solar simulation	10% to 98% +10°C ~ +90°C	
	有阳光模拟 with solar simulation	10% to 80% +15°C to +80°C	
升温速率 ³⁺⁴ Heating up rate ³⁺⁴	-30°C~+100°C	4°C/min	
降温速率 ³⁺⁴ Cooling down rate ³⁺⁴	+100°C~-30°C	2.5°C/min	
光谱分布 Spectral distribution		CIE 85, Table 4; DIN 75220, Table 1 根据CIE 85, 表4; DIN 75220, 表1	
辐照范围 Irradiation Area		4200cm ²	13600cm ²
辐照强度 Irradiation Range		800 W/m ² ~1200 W/m ²	
最高黑标温度 MAX. BST		125°C	
电源 Power Supply		交流380V 50赫兹 三相+N+PE AC380V 50Hz 3P+N+PE	
最大功率 Maximum Power (KW)		16.5	30

3: 最高温度和最低温度之间的平均速率 (无负载, 无散热, 参考IEC60068-3-5及IEC60068-3-6)

Average speed between highest and lowest temperature
(Without load or heat dissipation, according to IEC 60068-3-5 and IEC 60068-3-6)

4: 性能指标在室温为+25°C时测定; 传感器位于空气处理单元出风口

Performance data refer to +25°C ambient temperature;

The control sensors are installed at the blow-out of air conditioning unit

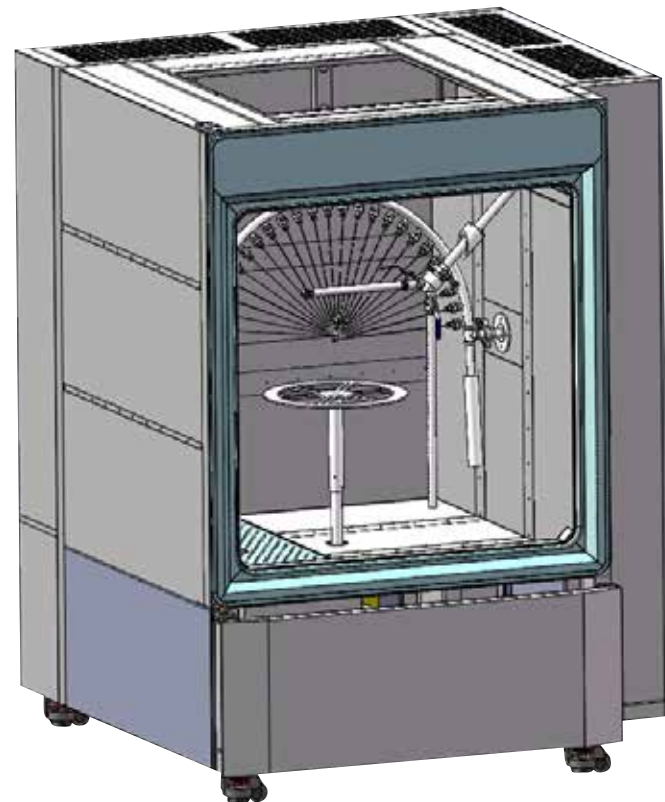
外壳防护等级试验箱 IP Code Test Chamber

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淋雨试验箱 Rain Test Chamber

本系列一共分为九类不同的产品，测试容积从1立方~2立方米，满足标准：IPX1, IPX2, IPX3, IPX4, IPX4K, IPX5, IPX6, IPX7, IPX8, IPX9K, JIS0203 S1, S2, R1, R2

Total 9 kind Standard Rain Test Chamber by integrating different type of test; Chamber Volume: 1~2m³
Test Standard: IPX1, IPX2, IPX3, IPX4, IPX4K, IPX5, IPX6, IPX7, IPX8, IPX9K, JIS0203 S1, S2, R1, R2



型号 Type	AZRA1000 -B1	AZRA1000 -B2	AZRA1000 -B3	AZRA1000 -B4	AZRA1000 -B5	AZRA1000 -B6	AZRA1000 -B7	AZRA1000 -B8	AZRA1000 -B9	
电源 Power Supply	交流380V 50赫兹 3相+N+PE AC 380V 50HZ 3 phase+N+PE									
最大功率 Maximum Power (KW)	5KW	5KW	10KW	5KW	25KW	5KW	5KW	5KW	5KW	
使用环境温/湿度 Operation Environment	+15°C~+35°C/≤85%RH									
性能*1 Performance*1	喷水压力 Spraying Pressure	80KPa~400KPa (可调/Adjustable)		30KPa~1000KPa (可调/Adjustable)		8000KPa~10000KPa (可调/Adjustable)		10KPa~300KPa (可调/Adjustable)		10KPa~400KPa (可调/Adjustable)
	喷水流量 Spraying flux	1mm/min~ 3mm/min	0.1L/min~ 0.6L/min	12.5 L/min~ 100L/min	14L/min~ 16L/min		1.9L/min~ 39.2L/min	0.1L/min~0.6L/min 1.9L/min~39.2L/min	1mm/min~3mm/min 0.1L/min~0.6L/min	1mm/min~3mm/min 0.1L/min~0.6L/min 1.9L/min~39.2L/min
	浸水高度 Soaking Level				150mm~ 1000mm					
	摆杆半径 Swing Tube Diameter	Φ400mm						Φ400mm	Φ400mm	Φ400mm
	喷嘴直径 Nozzle Diameter	Φ0.4mm	Φ0.4mm~ Φ0.8mm	Φ6.3mm , Φ12.5mm	IPX9K喷嘴 IPX9K Nozzle		Φ1.2mm , Φ0.5*8mm	Φ0.4mm~Φ0.8mm Φ1.2mm, Φ0.5*8mm	Φ0.4mm~Φ0.8mm Φ1.2mm, Φ0.5*8mm	Φ0.4mm~Φ0.8mm Φ1.2mm, Φ0.5*8mm
	喷嘴间距,距离 Nozzle Interval	20mm	50mm	2500mm~ 3000mm	0°30°60°90°		400mm	20mm~ 400mm	20mm~ 400mm	20mm~ 400mm
	滴水范围 Dripping Range	500mm* 500mm						500mm* 500mm		500mm* 500mm
	摆杆摆幅 Swing Range	±60°~±170° (可调/Adjustable)				360°		±60°~±170° (可调/Adjustable)	±60°~±170° (可调/Adjustable)	±60°~±170° (可调/Adjustable)
	摆动速度 Swing speed	约60°/s Around 60°/s				30s/个 30s/pcs	23rpm	约60°/s或23rpm Around 60°/s or 23rpm	约60°/s	约60°/s或23rpm Around 60°/s or 23rpm
	摆杆内径 Swing Tube Inner Diaeter	Φ15mm		Φ15mm	Φ15mm		Φ15mm	Φ15mm	Φ15mm	Φ15mm
	试验台直径 Table Diameter	Φ400mm	Φ400mm	1000*1000	Φ400mm		Φ400mm	Φ400mm	Φ400mm	Φ400mm
	试验台转速 Table Rotating Speed	1rpm	4~17rpm			4~17rpm	4~17rpm	4~17rpm	4~17rpm	4~17rpm
	试验台载重 Table Bearing	≤15KG	≤15KG	≤100KG	≤100KG	≤15KG	≤15KG	≤15KG	≤15KG	≤15KG
	试验防护等级 Testing Protection Class	IPX1, IPX2	IPX3, IPX4, IPX4K	IPX5, IPX6	IPX7, IPX8	IPX9K	R1, R2, S1, S2	IPX3, IPX4, IPX3, IPX4, S1, S2	IPX1, IPX2, IPX3, IPX4, IPX4K	IPX1, IPX2, IPX3, IPX4, IPX4K R1, R2, S1, S2
应用标准 Application Standard	DIN40050, GB2423.38, GB2424.23, GB4208, IEC60529, DNS7138, ISO20653, GB/T10485, GB/T4942				DIN40050	JIS0203 KSR0015	DIN40050, GB2423.38, GB2424.23, GB4208, IEC60529, DNS7138, ISO20653, GB/T10485, GB/T4942, DIN40050, GB2423.38, GB2424.23, GB4208, IEC60529, DNS7138, ISO20653, GB/T10485, GB/T4942, DIN40050, GB2423.38, GB2424.23, GB4208, IEC60529, DNS7138, ISO20653, GB/T10485, GB/T4942			
内容积 (L) Volumme	1000									
内尺寸(mm) Interior Size	W	1000								
	D	1000								
	H	1000								
外尺寸 Exterior Size	W	1500	1500	4000	1500	1500	1500	1500	1500	
	D	1450	1450	3000	1450	1450	1450	1450	1450	
	H	2150	2050	3800	1800	2050	2050	2050	2150	
机器重量(KG) Weight	350	350	350	350	350	350	350	350	350	
可选配件 Options	<ul style="list-style-type: none"> ○ 电缆孔带硅胶塞Φ50mm, Φ100mm/Cable port with silicon plug Φ50mm/Φ100mm ○ 电动升降平台/Electric height movement for carrier table ○ 15度倾斜平台/Incline carrier table up to 15° ○ 手动升降平台带滑环两芯电线(最大25A) /Manually height ovement carrier table with two wires for supply power to test specimen maximum 25A ○ 手动升降平台带滑环三芯电线 (其中1芯为5A 2芯100A) /Manually height ovement carrier table with three wires for supply power to test specimen (two with maximum current 25A, one with maximum current 5A) ○ 试验品通电开关控制/Test specimen power control ○ 外部插座 220V 10A/Exterior socket 220V 10A ○ LAN接口及远程控制软件/LAN interface and remote control software ○ 水温RT+10°C ~ 80°C±5°C/Water temperature control from RT+10°C to 80°C±5°C 									

外壳防护等级试验箱 IP Code Test Chamber

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沙尘试验箱 Dust Test Chamber

总共四种不同形式的沙尘试验箱，满足不同的试验标准，或者根据客户要求定制；有针对安全带试验的特殊沙尘箱，以及国军标的高风速吹尘吹砂试验；可以满足的试验标准：GB/T2423.37, GJB150.12A-2009, IP5X, IP6X, GB/T14166-2003

Four different type of dust test chamber;
Special type for safety belt test and military test standard.
Test Standard: GB/T2423.37, GJB150.12A-2009, IP5X, IP6X, GB/T14166-2003



型号 Type	AZDU1000B1	AZDU1000B2	AZDU100-SP	AZDU2500-SP	
电源 Power Supply	交流380V 50赫兹 3相+N+PE AC 380V 50HZ 3 phase+N+PE		交流220V 50赫兹 2相+PE AC 220V 50HZ 2phase+PE	交流380V 50赫兹 3相+N+PE AC 380V 50HZ 3 phase+N+PE	
最大功率 Maximum Power (KW)	5KW	5KW	5KW	5KW	
使用环境温/湿度 Operation Environment	+15°C~+35°C/≤85%RH				
性能 ¹ Performance ¹	温度范围 Temperature Range	RT+5°C~50°C	RT+5°C~50°C	无 Without	RT+5°C~50°C
	粉尘浓度 Dust Concentration	2KG/m ³	2KG/m ³	约 1KG Around 1kg	约 3KG Around 1kg
	粉尘规格 Dust Standard	能通过筛孔为75μm, 金属直径为50μm的方孔的干燥滑石粉或ISO 12103 Talcum powder which can be sieved through a square-meshed sieve with nominal wire 50μm diameter and 75μm gap between two wires, or according to ISO 12103	能通过筛孔为75μm, 金属直径为50μm的方孔的干燥滑石粉或ISO 12103 Talcum powder which can be sieved through a square-meshed sieve with nominal wire 50μm diameter and 75μm gap between two wires, or according to ISO 12103	ISO 12103 A1-A4	ISO 12103 A1-A4
	试验风速 Wind Speed	≤2m/s	≤2m/s	Φ1.5mm±0.1mm	Φ1.5mm±0.1mm
	扬尘控制 Blow Control	间隙, 循环 Interval or cycle	间隙, 循环 Interval or cycle	间隙, 循环 Interval or cycle	间隙, 循环 Interval or cycle
	压力差 Vacuum Control for Test Specimen	无 Without	≤-1.98KPa	550KPa±50KPa	550KPa±50KPa
	隔板 Shelf	格栅式 Grid shelf	格栅式 Grid shelf	Φ250	格栅式 Grid shelf
	隔板台载重 Shelf Bearing	≤20KG	≤20KG	≤20KG	≤100KG
	试验防护等级 Testing Protection Class	IP5X	IP5X, IP6X	IP5X	IP5X
	应用标准 Application Standard	DIN40050, GB2423.38, GB2424.23, GB4208, IEC60529, ISO20653, GB/T10485, GB/T4942	DIN40050, GB2423.38, GB2424.23, GB4208, IEC60529, ISO20653, GB/T10485, GB/T4942	GB/T 19949.2-2005, ISO 12097-2, AK-LV01	GB/T 19949.2-2005, ISO 12097-2, AK-LV01
内容积 (L) Volume	1000	1000	100	2500	
内尺寸(mm) Interior Size	W	1000	1000	Φ500	2500
	D	1000	1000		1000
	H	1000	1000	500	1000
外尺寸(mm) Exterior Size	W	1460	1460	960	3500
	D	1600	1600	800	1700
	H	1880	1880	1550	4000
机器重量(KG) Weight	350	350	150	600	
可选配件 Options	<ul style="list-style-type: none"> ○ 电缆孔带硅胶塞Φ50mm, Φ100mm/Cable port with silicon plug Φ50mm/Φ100mm ○ 试验品通电开关控制/Test specimen power control ○ 外部插座 220V 10A/Exterior socket 220V 10A ○ LAN接口及远程控制软件/LAN interface and remote control software 				

整体式步入式环境箱

Mono-block Walk-in Climatic Chamber

www.zengda.com

步入式环境试验箱

Walk-in Climatic Chamber

标准容积: 2m³, 4m³, 6m³, 8m³, 12m³;

温度范围: -70°C ~ +150°C

湿度范围: 10% ~ 98%RH

可以根据客户要求定制不同的升降温速率和试验容积;

一体化结构, 整体运输, 免去现场拼装调试的时间;

适用于大中型试件;

Standard Volume : 2m³, 4m³, 6m³, 8m³, 12m³;

Temperature Range: -70°C ~ +150°C

Humidity Range: 10% ~ 98%RH

Customized product by different volume and change of rate; Integrated structure, no field installation.

Suitable for large size DUT.



型号 Model	AZT(H)2000U	AZT(H)4000U	AZT(H)6000U	AZT(H)8000U	AZT(H)12000U	
电源 Power Supply	交流380V 50赫兹 3相+N+PE AC 380V 50HZ 3 phase+N+PE					
最大电流 Maximum Current (AZT/AZTH)(A)	28/34	40/46	50/62	59/71	80/92	
最大功率 Maximum Power (AZT/AZTH)(KW)	16/20	23/27	28.5/36.5	34/42	47/55	
冷却水流量 Cooling water flow (m ³ /h)	4	5	6	10	12	
使用环境温/湿度 Operation Environment						
控制方式 Control Mode						
性能 ³ Performance ³	温度范围 Temperature Range	-60°C~+120°C				
	湿度范围 Relative Humidity Range	+10°C~+85°C 10%~98%RH				
	露点温度范围 Dew Point Range	+4°C~+84.5°C				
	温度波动度 Temperature Fluctuation	≤±0.5°C				
	温度均匀性 Temperature Uniformity	≤2°C				
	温度偏差 Temperature Deviation	≤±2°C				
	湿度偏差 Humidity Deviation	≤±3%RH				
	AZT型升温速率 ² AZT Model Heating Rate ²	3.2	3	3.4	2.8	3.2
	AZT型降温速率 ² AZT Model Cooling Rate ²	2.8	2.5	2.5	3.2	3.6
	AZTH型升温速率 ² AZTH Model Heating Rate ²	3.2	3	3.4	2.8	3.2
AZTH型降温速率 ² AZTH Model Cooling Rate ²	2.8	2.5	2.5	3.2	3.6	

观察窗 Inspection Window	多层导电膜加热观察窗, 尺寸W450mmxH450mm, 每扇门一个 One multilayer glasses with conducting film heating in each door, size W450xH450				
控制器 Controller System	AZ-1000控制仪表集成西门子S7可编程控制器 AZ-1000 controller integrated with Siemens S7 PLC				
冷凝方式 Condenser	水冷 Water cooled condenser				
外部加湿供水方式 Exterior Humidifying Water Supply	去离子水直接补水 Self feeding by deionized water				
内容积 (立方米) Interior Capacity (m ³)	1.98	4.05	6.15	8	12
内尺寸(mm) Interior Size	W(mm)	1100	1800	1900	2000
	D(mm)	1200	1500	1850	2000
	H(mm)	1500	1500	1750	2000
外尺寸 Exterior Size	W(mm)	1400	2100	2200	2300
	D(mm)	2650	2950	3300	3450
	H(mm)	2230	2230	2480	2730
门/Door	单开门/Single door 双开门/Double wing door 双开门/Double wing door 双开门/Double wing door 双开门/Double wing door W1100mmxH1500mm W1800mmxH1500mm W1900mmxH1750mm W2000mmxH2000mm W2000mmxH2000mm				
标准配置 Standard Configuration	<ul style="list-style-type: none"> ● 电缆孔带硅胶塞 Φ80mmx1/Cable port with silicon plug Φ80mmx1 ● 防滑底板/Anti-slip floor ● 内部照明/Internal lighting ● 水冷冷凝方式/Water cooled condenser ● USB接口及历史数据回放及转换软件/USB interface and history data review and converting software 				
可选配置 Optional Configuration	<ul style="list-style-type: none"> ○ 指定其他箱体内尺寸/Other chamber interior size ○ 其他温度范围/Other temperature range ○ 电缆孔带硅胶塞 Φ50mm, Φ100mm/Cable port with silicon plug Φ50mm/Φ100mm ○ 隔板/Shelf ○ 风冷冷凝方式/Air cooled condenser ○ 外部插座 220V 10A/Exterior socket 220V 10A ○ LAN接口及远程控制软件/LAN interface and remote control software ○ 远程集中控制软件/Remote integration control for multi chambers ○ 数字量输入报警接口x4/Digital alarm input channels x 4 ○ 数字量输出继电器接口x4 (试验品用)/Auxiliary relay digital output channels x 4 (for specimens) ○ 额外模拟量采集通道x4 数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选) Additional analog sampling channels x 4, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V) ○ 额外模拟量采集通道x8 数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选) Additional analog sampling channels x 8, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V) ○ 模拟量输出通道x4 (设定温度, 设定湿度, 采样温度, 采样湿度) Analog output channels x 4 (Setting temperature/Setting humidity/Measured temperature/Measured humidity) ○ 外部模拟量控制温湿度 (4~20mA, 0~10V, -10V~10V可选) Exterior analog input channels control temperature and humidity (Option: 4~20mA, 0~10V, -10V~10V) ○ 干燥新风补偿/Compressed dry air purging system ○ 自动净水器/Automatic water purification system ○ 试品温度控制/Temperature control on test specimen 				

*1: AZT型的无湿度控制功能/AZT model has no humidity control function;

*2: 最高温度与最低温度之间的平均速率 (无负载, 无散热, 参考IECC60068-3-5)

Average speed between highest and lowest temperature(without load and heat dissipation according to IEC60068-3-5);

*3: 性能指标在室温为+25°C时测定;传感器处于空气处理单元出风口;

All the above specifications are measured at +25°C room temperature and the sensors are installed at blow-out of air conditioning unit;

低气压试验箱 Vacuum Test Chamber

本系列产品可以用于模拟海拔，温度，湿度等复杂的自然环境；
常规最低压力可以达到1mbar，
或者根据客户要求可以定制压力为10-3mbar级别的试验箱；
在控制压力的同时，温度也能够通过壁面的辐射换热系统进行控制；

Vacuum chamber can simulation the altitude, temperature and humidity environment.
The regular controlled pressure up to 1 mbar;
Special chamber can reach the pressure of 10-3mba;
Temperature is controlled by heat radiation under low pressure.



型号*1 Model*1	AZVAT(H)150U	AZVAT(H)500U	AZVAT(H)1000U	
电源 Power Supply	交流380V 50赫兹 3相+N+PE AC 380V 50HZ 3 phase+N+PE			
最大电流 Maximum Current (AZT/AZTH)(A)	21/21	30/37	33/40	
最大功率 Maximum Power (AZT/AZTH)(KW)	9.5/11	16.5/18	18/21	
使用环境温/湿度 Operation Environment	+15°C~+35°C/≤85%RH			
控制方式 Control Mode	独立的冷端和热端PID调节，热量和冷量均可连续调节 Independent PID regulation of consecutive cooling and heating capacity			
性能*3 Performance*3	温度范围 Temperature Range	-70°C~+120°C*4		
	湿度范围 Relative Humidity Range	+15°C~+85°C 20%~95%RH		
	露点温度范围 Dew Point Range	+2°C~+84°C		
	温度波动度 Temperature Fluctuation	≤±0.5°C		
	温度均匀性 Temperature Uniformity	≤2°C		
	温度偏差 Temperature Deviation	≤±2°C		
	湿度偏差 Humidity Deviation	≤±3%RH		
	升温速率 Model Heating Rate	2.5°C/min	2.5°C/min	2°C/min
	降温速率 Model Cooling Rate	1.8°C/min	1.8°C/min	2°C/min
	真空控制范围 Pressure range	5KPa~1bar		
压力波动度 Pressure Fluctuation	≤±2 Kpa (1bar~40KPa) / ≤±5% (40KPa~2KPa) / ≤0.1KPa (≤2KPa)			
压力下降时间 Pressure fall down time	30分钟以内 within 30 minutes			

控制器 Controller System	AZ-1000控制仪表集成西门子S7可编程控制器 AZ-1000 controller integrated with Siemens S7 PLC			
冷凝方式 Condenser	水冷冷凝器 Air-cooled condenser			
外部加湿供水方式 Exterior Humidifying Water Supply	水箱蓄水，手动补水，或者自来水直接补水 Manually water supply to humidification water tank or self feeding by town water			
加湿水利用方式 Humidifying Water Recycling	配备多级纯水装置，加湿水循环利用，降低加湿水消耗量 Multistage water purification device and water recycling, reducing water consumption			
内容积 (升) Interior Capacity (L)	150	544	1040	
内尺寸 Interior Size	W(mm)	600	800	1010
	D(mm)	500	800	1010
	H(mm)	500	850	1020
外尺寸 Exterior Size	W(mm)	960	1200	1430
	D(mm)	2640	2855	3455
	H(mm)	1900	2490	2290
标准配置 Standard Configuration	<ul style="list-style-type: none"> ● 电缆孔带硅胶塞Φ50mmx1/Cable port with silicon plug Φ50mmx1 ● 内部照明/Internal lighting ● 一层隔板/One shelf ● 风冷冷凝方式/Air cooled condenser ● USB接口及历史数据回放及转换软件/USB interface and history data review and converting software 			
可选配置 Optional Configuration	<ul style="list-style-type: none"> ○ 电缆孔带硅胶塞Φ50mm, Φ100mm/Cable port with silicon plug Φ50mm/Φ100mm ○ 额外的隔板/Additional shelves ○ 水冷冷凝方式/Water cooled condenser ○ 外部插座 220V 10A/Exterior socket 220V 10A ○ LAN接口及远程控制软件/LAN interface and remote control software ○ 试验箱内胆温度条件/Thermoregulation of internal walls ○ 远程集中控制软件/Remote integration control for multi chambers ○ 数字量输入报警接口x4/Digital alarm input channels x 4 ○ 数字量输出继电器接口x4 (试验品用)/Auxiliary relay digital output channels x 4 (for specimens) ○ 额外模拟量采集通道x4数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选) Additional analog sampling channels x 4, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V) ○ 额外模拟量采集通道x8数据可在控制器上储存回放(PT100, T型热电偶, 4~20mA, 0~10V, -10V~10V可选) Additional analog sampling channels x 8, sampling data can be reviewed and recorded (Option: PT100/T thermocouple/4~20mA/0~10V/-10V~10V) ○ 模拟量输出通道x6 (设定温度, 设定湿度, 设定压力, 采样温度, 采样湿度, 采样压力) Analog output channels x 4 (Setting temperature/Setting humidity/Setting pressure/Measured temperature/Measured humidity/Measured pressure) ○ 外部模拟量控制温湿度压力 (4~20mA, 0~10V, -10V~10V可选) Exterior analog input channels control temperature, humidity and pressure (Option: 4~20mA, 0~10V, -10V~10V) ○ 干燥新风补偿/Compressed dry air purging system ○ 试样温度控制/Temperature control on test specimen 			

*1: AZVAT型的无湿度控制功能/AZVAT modle has no humidity control function;

*2: 最高温度与最低温度之间的平均速率 (无负载, 无散热, 参考IECC60068-3-5) /Average speed between highest and lowest temperature (without load and heat dissipation according to IEC60068-3-5);

*3: 性能指标在室温为+25°C时测定;传感器处于空气处理单元出风口;

All the above specifications are measured at +25°C room temperature and the sensors are installed at blow-out of air conditioning unit;

*4: 压力范围30KPa~1bar之间, 温度可控;

Temperature controllable with pressure from 30KPa to 1bar;

步入式整车环境仓

Drive-in Climatic Chamber

步入式环境模拟仓广泛用于汽车，计量检测，航天航空以及国防工业；具有可靠性要求高、温湿度范围广、综合环境参数多、试验条件复杂。操作人员可以进入试验室对试验品进行操作的特点，为工业生产厂家的批量或者大型零件、半成品、成品提供了温湿度环境测试的条件。

性能特点：

温度范围：-70°C~+150°C，

湿度范围：10%~98%RH；

相关标准：PV2005, PV1200, PV2205, PV2206, PR303.5, PR308.2, DBL5471 4.1.2

采用易于运输和现场安装的拼装式库板，可根据用户需要提供各种尺寸规格的产品；

科学的空气流通设计，使室内温湿度均匀，避免任何死角；

每个产品都根据客户的要求订做，保证了设备的适用性和高效、节能。

省耗节能，增设独有的冷冻回路。

Drive-in climatic chamber are widely used in automotive industry, testing facility, defense, aerospace and aeronautics areas.

This series of product is high reliable under wide range of temperature and humidity conditions.

Operators can enter the chamber to manipulate the large size DUT.

Prefabricated panels are used for easy transportation and installation.

Customized product to meet the real demand from customer.

Ideal air circulation to guarantee the best temperature humidity uniformity inside chamber.

State of art refrigeration technology to save the power consumption and lift-time cost.

Main performance

Temperature range: -70°C~+150°C,

Humidity range: 10% ~ 98%RH;

Test standard: PV2005, PV1200, PV2205, PV2206, PR303.5, PR308.2, DBL5471 4.1.2, etc.



MAST振动台环境仓

Climatic Chamber with MAST System

步入式环境模拟试验仓配合MAST TABLE（多轴液压振动台）

MAST系统结合带红外模拟的环境仓可以模拟汽车零部件在极端温湿度以及振动环境下的性能；

温度范围：-40°C~+100°C，

湿度范围：10%~98%RH；

专门的房间减震和隔音设计，少了振动装置对于环境仓的影响；

红外模拟系统：可选

试验件吊装系统：可选

房间扫气系统：可选

电池安全防护系统：可选

Climatic chamber cooperated with MAST (Multiaxial Simulation Tables)

Temperature, humidity and Infrared simulation will act on the DUT for the extreme weather and vibration condition.

Main performance

Temperature range: -40°C~+100°C,

Humidity range: 10% ~ 98%RH;

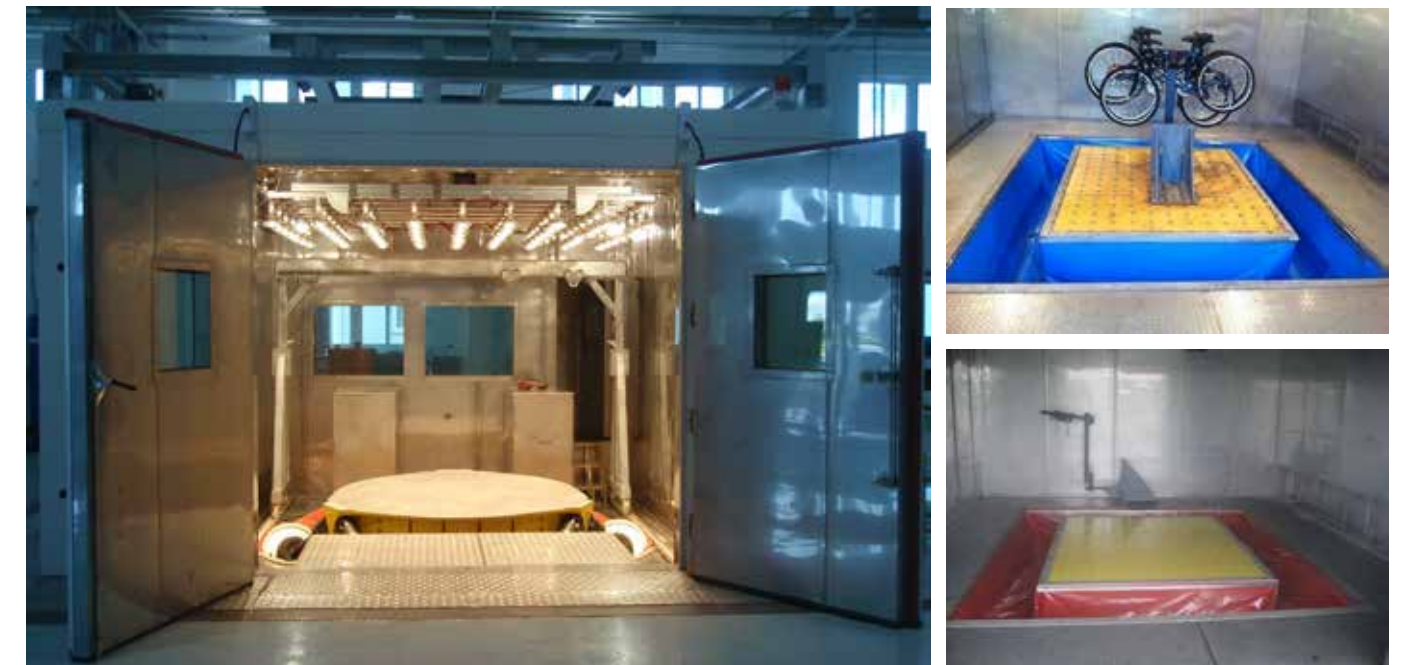
Special noise treatment.

Infrared simulation system: Optional

Movable crane for lifting DUT: Optional

Air purge system: Optional

Battery safety system: Optional

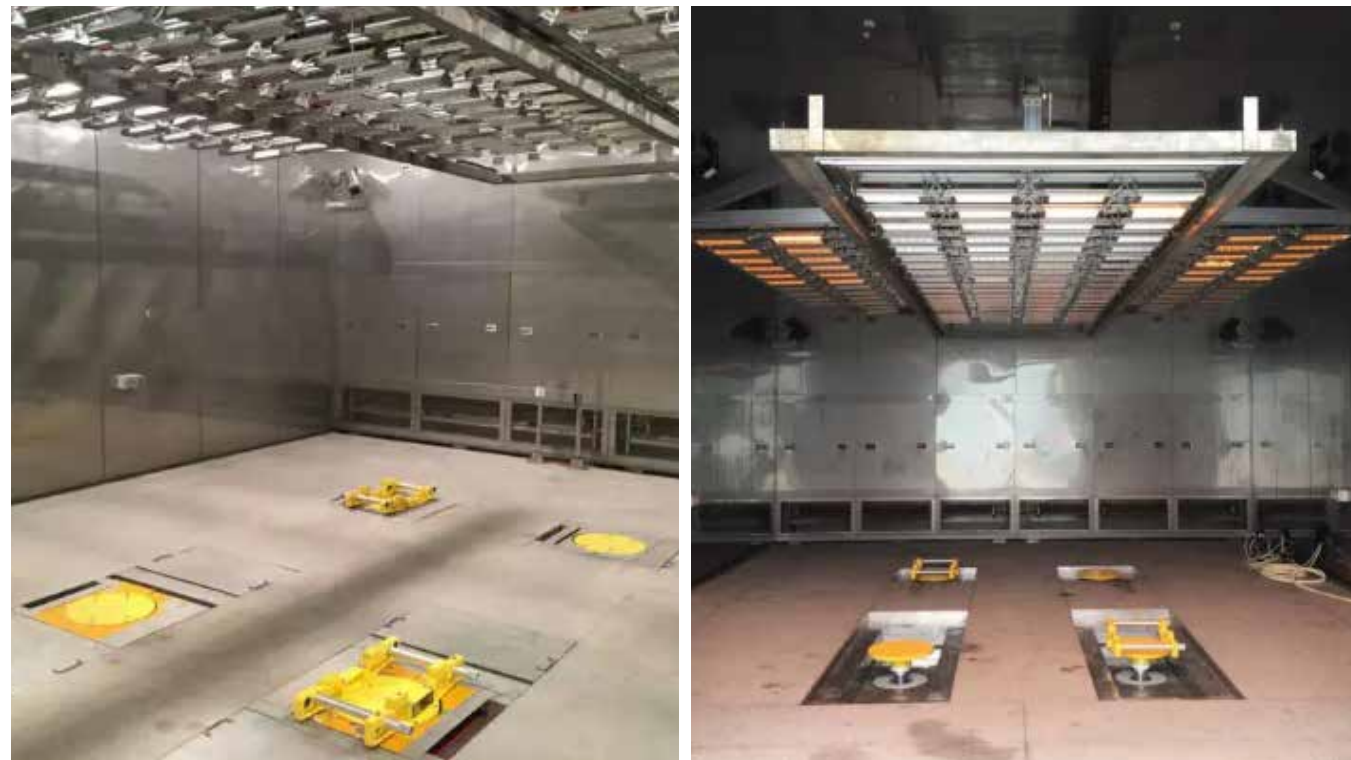


道路模拟环境仓

Climatic Chamber with Four Poster System

四立柱试验室用于进行结构耐久性、异响及驾驶平顺性测试。
四立柱能通过驱动器自动定位来设置车辆的不同轮距和轴距。
试验室提供适当的消音处理再现极端环境条件下的测试和异响评价。
温度范围：-40°C~+100°C
湿度范围：10%~95%R.H.
配合红外模拟系统；
密封底板和4-Poster系统液压缸同步移动，匹配不同轴距轮距
可以选择配置新风供给和尾气抽排系统

4-Poster climatic chamber is used for structural durability, NVH and smooth driving test.
The 4-poster hydraulic actuators can move to match different wheelbase and tread.
The chamber will provide specific acoustic treatment to reproduce the NVH condition.
Main performance
Temperature range: -40°C~+100°C,
Humidity range: 10%~95%RH;
With Infrared simulation system;
The automatic sealing system with hydraulic actuators.
Fresh air and exhaust system is optional.

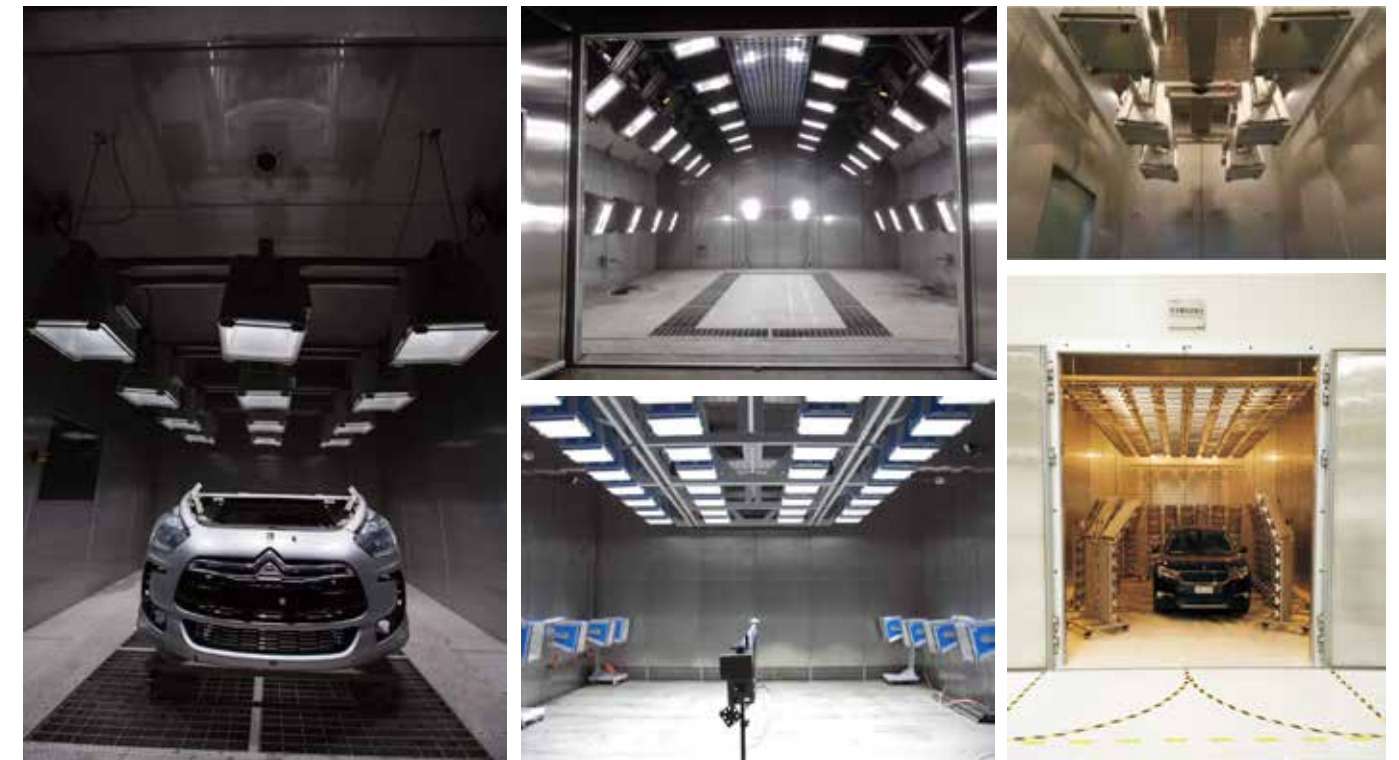


整车阳光模拟和红外模拟试验仓

Drive-in Solar Simulation and Infrared Simulation Test Chamber

全光谱阳光模拟试验室符合DIN75220,宝马标准PR306.5以及奥迪标准VDA230-219
借助阳光(红外)模拟试验室模拟南佛罗里达和亚利桑那的极端气候，测量零部件经过暴晒之后的间隙和通过视觉的检查，从而评估汽车零部件抵抗暴晒的性能；整车或者汽车零部件历经阳光以及温湿度的综合循环，来模拟现实中的阳光暴晒的更迭；
温度范围：-40°C~+80°C
湿度范围：10%~95%R.H.
辐照度范围：400~1200W/m²
紫外，可见光，红外辐射；光谱分布接近CIE85;Table 4
多变量控制，可以控制辐照光强或者黑标表面温度；
配备自动升降灯架配合不同的车型高度，达到最佳的辐照均匀度；
零部件阳光模拟用小试验箱用于模拟车内状态，

Test Standard: DIN75220, PR 306.5, VDA 230-219;
By simulating the extreme weather condition in South Florida and Arizona, the chamber can evaluate resistance to insolation of vehicle components by measuring gaps and flushness and checking condition of visible parts. The part or assembly as fitted to the vehicle is subjected to sunlight, modulated through temperature and humidity regulation for a certain number of cycles, simulating the alternating of non-exposure and exposure;
Temperature range : -40°C~+80°C;
Humidity range: 10%~95%R.H.
Irradiance: 400~1200W/m²
UV/Visible/Infrared Radiation, close to CIE85;Table 4
Multi-variables control logic, feedback control based on irradiation intensity or black standard temperature;
Equipped with automatic lifting lamp bank to match different vehicles and gain optimum irradiation uniformity;
Small transparent test box for components solar simulation test;



汽车性能测试仓和发动机性能测试仓

Vehicle Performance Test Chamber and Engine Performance Test Chamber

满足中国，欧盟和美国的性能和排放标准，可以进行不同温湿度条件下的浸车测试,冷启动测试,除霜和除雾性能测试;

温度范围: -40°C~+60°C

湿度范围: 30%~70%R.H.

配备新风补偿以及尾气抽排系统

整合底盘测功机或者自由滚筒

整合CO2灭火系统和实时监控系統

配合汽车尾气分析系统,风速模拟风机和阳光或红外模拟系统

The chamber is in accordance with China, UN-ECE and US performance/emission regulations. The chamber can be also used for soak tests, cold start tests, defrosters and demisters performance test at different temperature and humidity conditions.

Temperature range : -40°C~+60°C;

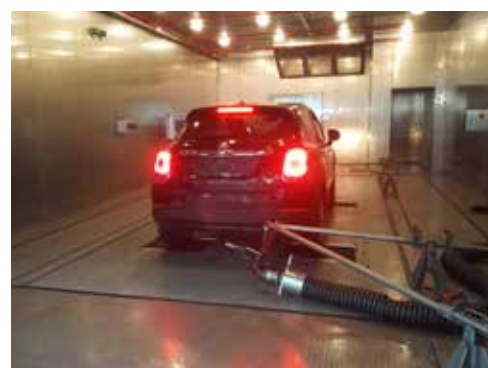
Humidity range: 30%~70%R.H.

Equipped with fresh air supply system and exhaust extraction system;

Integrated with chassis dynamometer and fixed-inertia roller;

Integration of CO2 fire extinguishing system and real-time monitoring system;

Intergration of exhaust analysis system,air speed simulation blower and solar or IR simulation system



多种试验方法的整合

Integration of different test methods

完美综合了环境试验箱，气囊点爆系统以及灯光系统；可以自动完成低温到达，开门，引爆以及通风换气整套过程，提高了试验精度，重复性，节省了试验时间，提高了试验效率；

The integration of test chamber, airbag static deployment system and lighting system can complete the whole process of reaching low temperature, opening the door, igniting the airbag and ventilation automatically; It contributes to improved test efficiency and precision.

温度范围-50℃~+110℃
 自动滑移门和自动移动平台
 超大视窗以及干风吹扫和废气抽排系统
 室内点爆和室外点爆的完美整合
 环境仓，点爆系统以及灯光系统可以联动或者独立手动控制

Temperature range : -50℃~+110℃;
 Auto-sliding door and automatic movement platform;
 Super size inspection windows, dry air purging and exhaust extraction system;
 Integration of indoor deployment test and outdoor deployment test;
 Integration of test chamber, static deployment system and lighting system;



整车箱内点爆测试
Vehicle and Inside Chamber Test



气囊模块，箱内箱外点爆
DAB/PAB/SAB/KAB, inside and outside test

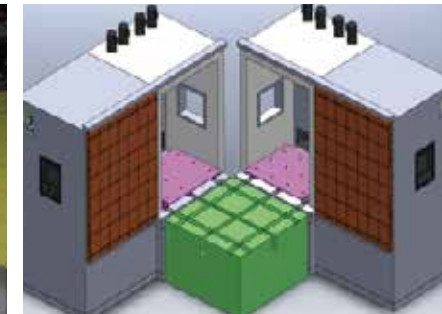


侧气帘，箱外点爆
CAB, flap door outside test

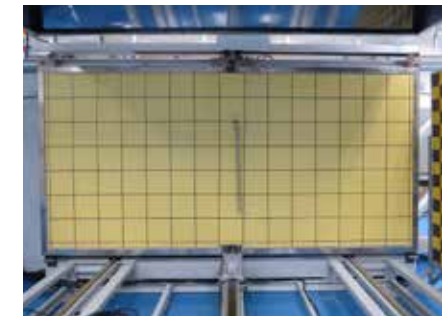


白车身仪表板，箱外点爆
BIW/Dashboard, platform, outside test

1: 气囊模块，箱内箱外点爆
DAB/PAB/SAB/KAB, inside and outside test



2: 侧气帘，箱外点爆
CAB, flap door outside test



3: 白车身仪表板，箱外点爆
BIW/Dashboard, platform, outside test



4: 整车箱内点爆测试
Vehicle and Inside Chamber Test



整车VOC测试仓/三综合环境箱

Vehicle VOC Test Chamber

Climatic Chamber with Vibration Shaker

www.zengda.com

整车VOC测试仓

Vehicle VOC Test Chamber

温度范围: +20°C~+40°C

湿度范围: 40%~60%R.H.

配备带过滤装置的新风系统和尾气抽排系统

配备红外模拟系统,灯架高度连续可调;

更换方便的活性炭过滤系统和优化的仓内气流组织;

满足行业内部的多个试验标准:《ISO/FDIS 12219-1:2011(E)》、《PV3938》、《JAMA》、《HT400-2007》;

Temperature range : +20°C~+40°C;

Humidity range: 40%~60%R.H.

Equipped with filtered fresh air supply system and exhaust extraction system

Equipped with IR simulation system and the automatic lifting lamp bank;

Well-designed activated carbon system is convenient to replace and optimized air organization inside the chamber;

Applicable to almost all the test standards:《ISO/FDIS 12219-1:2011(E)》、《PV3938》、《JAMA》、《HT400-2007》;

三综合环境箱

Climatic Chamber with Vibration Shaker

三综合环境箱是用于配合振动台的环境箱,

可以根据振动台的台面尺寸定制;

具备自动水平移动和自动垂直移动功能,配合不同的振动台工位;

特别的软连接系统保证箱体和振动台之间的隔热密封;

箱体容积: 0.5m³~25m³

温度范围: -70°C~+150°C;

升降速率: 1°C~15°C/min;

湿度范围: 10%~98%RH;

红外模拟: 可选

试件吊装系统: 可选

Climatic chamber is special designed to cooperate with shaker,

Customized by the different size of the shaker extender;

The chamber can move horizontal and vertically to match different working position;

Flexible material to ensure heat-insulation performance between chamber and shaker.

Chamber volume: 0.5m³~25m³

Temperature range: -70°C~+150°C;

Temperature rate of change: 1°C ~ 15°C/min

Humidity range: 10%~98%RH;

Infrared simulation system: Optional

DUT Crane system: Optional



大型三综合环境箱

振动台面尺寸: >宽2000mm*深2000mm
箱体容积: >10m³

Walk-in Climatic Chamber with Shaker

Size of shaker: > W2000mm*D2000mm
Chamber Volume: >10m³



小型三综合环境箱

振动台面尺寸>宽400mm*深400mm
箱体容积: 0.5m³~3m³

Walk-in Climatic Chamber with Shaker

Size of shaker: >W400mm*D400mm
Chamber Volume: 0.5m³~3m³



电池试验箱 Battery Test Chamber

电池试验箱是专门针对不同种类的动力电池测试需要；
在标准环境箱的基础上，根据不同的严酷等级配备安全防护功能，
最大程度保证人员、财产及设备的安全；
箱体容积：0.5m³~50m³
温度范围：-40°C~+90°C；
升降速率：5°C/min；
湿度范围：10%~98%RH；
严酷等级：Level0~Level7；
远程操作，报警及监控：可选
与充放电系统通讯：可选

Battery test chamber are special designed for different type of traction battery test.
On the basis of standard climatic chamber, protection mechanisms are provided to different hazard level, to ensure the safety of company personnel, property and equipment.
Chamber volume: 0.5m³~50m³
Temperature range: -40°C~+90°C;
Temperature rate of change: 5°C/min
Humidity range: 10%~98%RH;
Hazard Level: Level0~Level7;
Remote control, alarm and monitoring: Optional
Communication with power test system: Optional



安全防护:

安全探测	烟感探测 气体探测 表面温度探测 火灾探测
被动防护	增强结构 泄压 泄爆
主动防护	气体吹扫 惰性气体冲注 灭火系统

Safety system:

Safety Detection	Smoke Detection Gas Detection Battery Temperature Detection Flame Detection
Passive Protection	Enhanced mechanical structure Overpressure Flap Burst Disc
Active Prevention	Pressurized air purge Permanent inert gas injection Fire suppression system

相关环境试验设备 Climatic Test Equipment



低气压箱
Vacuum Test



温湿度环境箱
Climatic Test



盐雾腐蚀试验箱
Salt Corrosion Test



电机测试箱
Motor test box

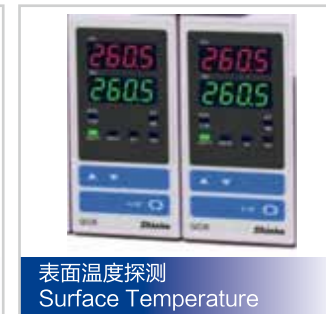
安全探测: Safety Detection



烟感探测
Smoke Detection



气体探测
Gas Detection



表面温度探测
Surface Temperature



火灾探测
Flame Detection

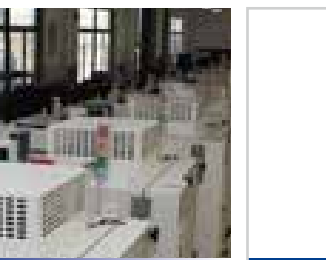
被动防护: Passive Protection



机械结构强化
Enhanced Structure



压力释放
Overpressure Flap

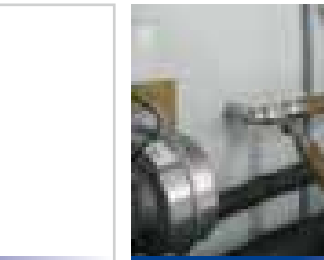


泄爆
Burst Disc

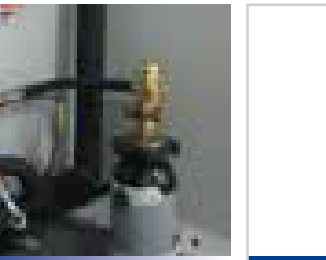
主动防护: Active Protection



气体吹扫
Air Purge



惰性气体冲注
Permanent inert gas injection



灭火系统
Fire suppression system

