Comparison of Different Panel

各型地板材料性能比较表

Performar	ice性能	"钢质水泥基地板 Steel cement panel"	钢质空心地板 Steel hollow panel	木质基地板 Woodcore panel	硫酸钙基地板 Calcium Sulphate panel	压铸铝地板 Die-casting aluminum panel
Ultimate lo	ad极限载荷	А	В	С	D	E
Safety factor	or安全系数	А	В	С	D	Е
Overload p	rotection超载荷保护	Α	В	С	D	E
Fire rating®	方火性能	А	В	Е	А	Е
Panel size±	也板尺寸精确度	В	В	В	В	А
Panel weig	ht(bare fisish)裸板重量	С	А	А	Е	А
Bare panel	sound insulation裸板隔音性能	С	С	В	А	Е
Walking fee	eling步行感	А	В	А	А	В
Recycled c	ontent回收性原材料比例	В	В	D	А	Е
"Support fo 绿色建筑申	r Green building certificate 请支持*	В	В	D	А	Е
Cost efficie	ncy估计单位成本	А	D	D	В	Е
Cutting eas	e and cost切割难度和切割成本	В	А	А	Е	С
	Office办公区	А	В	А	А	Е
	Data center数据中心	А	В	D	В	В
Application	Education教育区	А	D	А	В	E
用途	Casino赌场	А	Е	D	А	В
	Industrial cleanroom洁净厂房	В	Е	Е	Е	А
	Library图书馆	А	С	В	А	Е

Note备注:

(1)ZTFLOOR has continuous product and product data improvement. It reserves the right to change type design and specifications without notice. 中天机房公司致力于产品和技术的不断更新. 我们保留对产品品种设计和性能的修改且恕不另行通知的权利.

(2) 'A'---Most advantage最优, 'E'---Least advantage最差.

(3)The comparison is based on the panels of the same concentrated loading grade.此对照表基于各品种同等集中载荷的地板.

常州市武进中天机房设备有限公司

CHANGZHOU WUJIN ZHONGTIAN COMPUTER-ROOM EQUIPMENT CO..LTD

地址:江苏常州市武进区横林镇卫星工业园 邮政编码:213103 Address: Weixing Industrial Zone, Henglin Town, 213103 Changzhou City, Jiangsu Province, P.R. of China

- ZTFLOOR passes third-part Green Material certificate.,Please ask for details through company sales. 中天公司已通过第三方绿色环保建材认证,请向公司业务经理索取相关资料。
- For more new products, please contact ZTFLOOR sales. 更多新产品,请咨询中天公司业务经理。

http://www.ztfloor.com



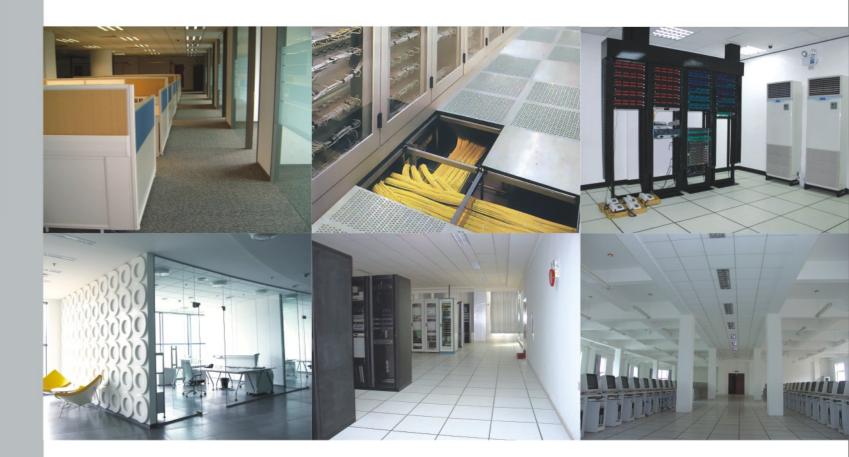






ACCESS FLOOR SYSTEM

高架活动地板



常州市武进中天机房设备有限公司

CHANGZHOU WUJIN ZHONGTIAN COMPUTER-ROOM EQUIPMENT CO.,LTD



COMPANY PROFILE

公司简介

As one of the largest access floor manufacturers and exporters in China, in 2015, ZT Floor has supplied over 2 million square meters of access floor in commercial office buildings, data centers, educational facilities, the casinos, clean rooms and libraries.

The company is expanding, with plant area over 60,000 square meters and 200 workers. The main products include access floor system, data center products, underfloor air conditioning and underfloor wiring.

ZT Floor leverages its 28 years of experience in the industry to provide support to customers by its high efficiency, energy conversation, intelligence and green spaces products.

常州市武进中天机房设备有限公司成立于1988年,现有员工200人,工厂面积约6万平方米。公司主营高架活动地板系统产品的设计、生产、销售和施工。产品系列涵盖架空活动地板,数据中心产品,地板送风空调系统和地板电器电缆产品四大系统。公司积极打造产品和服务平台,以提升客户价值为信念,为全球活动地板用户创造高效、节能、绿色空间提供整体解决方案。作为国内最大的活动地板系统产品供应商和出口商之一,公司每年出库约200万平方米活动地板材料和系统产品,产品用途包括办公楼、数据中心、教育区、赌场、洁净厂房和图书馆等。











CERTIFICATES

认证证书

For more certificates, please contact us 请向中天公司索取更详细公司或产品证书











MOB Report

CISCA Report

VOC Report

QAS Report

STATIC Report







KS Report



CE Report



ISO9001Report











Stringer Load Report

Pedestal Axial Report

CE Report

ASTM84 Report

Green Lable Report

全钢高架活动地板





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Structure

ZT50 OA panel is made of steel plate, top to be SPCC material, bottom to be ST14 material, after pan formed and joined together by resistance welding, the panel is coated with epoxy paint, then infilled with light cement.

ZT50 OA地板采用SPCC硬质冷轧板,底部采用ST14拉伸板,经拉伸、点焊、磷化、喷塑后,内腔填充 轻质发泡水泥而成,四角带有角锁孔。

Size

500mm×500mm

Feature

· All-steel structure, nice loading capacity

· Excellent fire resistance ability

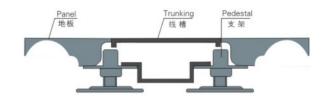
· Good dimension accuracy, panel can be interchangeable

• 全钢结构, 地板承重能力好 • 良好的防火性能

• 地板尺寸精度高, 互换性好, 易安装, 维修方便







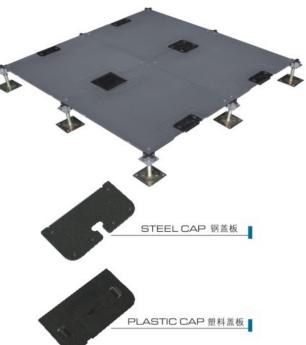
线槽地板安装示意图

ZT50-A-C5 PANEL

Wire Trunking System

A workstation can be easily and quickly relocated with cable management without disruption. Convenient for connecting wire at any point without cutting floor. Suitable for all kinds of plug socket terminals. Adjustable wire-connected location.

线槽地板可根据使用要求任意添加线槽,布线更具灵活性,可 以将强弱电分开隔离。便于检修、节约大楼空间,突出智能 化, 电板的功能性。



ZT50-C2 PANEL

Feature

OA access floor system effectively reduces energy cost and improves inside air quality, makes it to be green office environment.

OA地板系统能有效的节能,提高室内空气质量,创造绿色办公









ZT50IE ZT5O反

ZT50-C2IE ZT50-C2反

	/pe !号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷		g Load 载荷N	Remarks 备注
International	国内型号	mm	N	N	N	N/M²	10次	10000次	O 4 4m 6m 41
OA668	HDG500 28QG	500 × 500 × 28	≥2990	670	≥8890	≥12500	2215	1548	OA 智能化 楼宇架空标
OA800	HDG500 28QG	500 × 500 × 28	≥3596	670	≥10799	≥19796	2959	2215	准活动地板
OA1000	HDG500 28BG	500 × 500 × 28	≥4498	670	≥13494	≥23294	3596	2959	(CISCA)

全钢高架活动地板





₩ (€ PSB Intertek SGS

ZT5O-B型扣槽网络地板



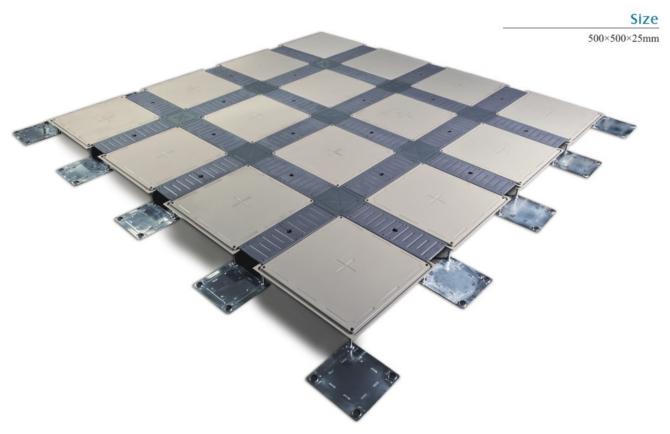




Structure

ZT50-B panel is elevated innovation and breakthrough, comparing with traditional access floor system. The new ZT50-B series has the same advantage of ZT50 panel, but more convenient, environmental protected. Now it is widely used in Japan, Qatar, Bahrain, Korea and other countries.

ZT50-B型扣槽网络地板是对传统网络地板的突破及创新。除具有普通ZT50地板的优点之外,它使用 范围更广,安装更方便,更环保。目前在日本、卡塔尔、巴林、韩国被广泛应用。



03

Product Description

ZT50-B panel is supported by 4 pedestals and flank cap and central cap. ZT50-B扣槽地板由支架和盖板组成。



Feature

- · Environmental protected, economical and recyclable.
- · Light weight, 1/2 to 2/3 of common access floor.
- · Good conductivity and air leakage, flexible trunks for wires and cables.
- · Specially designed for low finished flooring height
- ·绿色环保, 回收性能好
- 重量轻,只有普通地板的1/2到2/3
- · 导电性能和透气性较好, 便于布线
- 特别为低完成高度设计







Flank Cap 边盖板





Outlet box 地插座 Base Connector 连接基座 Screw Fedestal 螺丝支架

Trunking

Trunking for wires is one of the advantages of ZT trunking floor. Cover flank covers on basic panel edges after lying wires in trunks. Each panel stands separately, making it very convenient to lie flank cover before or after wires.

地板线槽系统: 此系统为产品的重要功能之一, 此功能能达到现有的任何一款其它网络地板系 统无法达到的效果。前述线槽安装自然成型 后,可先将盖板安装,或布线完成后再安装盖 板。由于每块地板为独立支撑, 故先布线或后 布线都很方便与安全。



77.7	ype 년号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷	Rolling Load 滚动载荷N	Remarks 备注
International	国内型号	mm	N	N	N	N/M²	10次 10000次	
OA668	HDG500 25QG	500 × 500 × 25	≥2990	670	≥8890	≥12500	2215 1548	OA 智能化 楼宇架空标
OA800	HDG500 25QG	500 × 500 × 25	≥3596	670	≥10799	≥19796	2959 2215	准活动地板
OA1000	HDG500 25BG	500 × 500 × 25	≥4498	670	≥13494	≥23294	3596 2959	(CISCA)

全钢高架活动地板















Structure

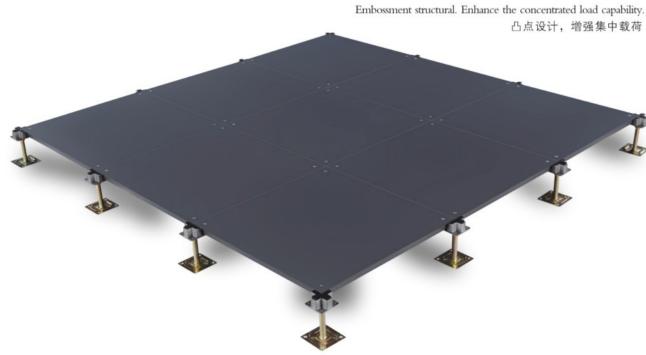
ZT60 OA panel is made of steel plate, top to be SPCC material, bottom to be ST14 material, after pan formed and joined together by resistance welding, the panel is coated with epoxy paint, then infilled with light cement.

ZT60 OA地板由冷轧钢板和拉伸钢板构成,板内填充轻质发泡纯水泥。用宝钢钢板经拉伸、点 焊、磷化、喷塑做成,内腔填充发泡水泥,带有角锁孔。

Size

600×600×35mm

Feature





Light cement 发泡水泥

ST14 steel ST14拉伸钢板











Structure

- · Screw down design supports the system effectively and makes the installation easily and stable.
- · The load is transferred directly onto the center of pedestal column.
- · Different types of understructures are available for install OA panel system.
- 角锁孔连接使地板安装更稳固, 更好地支撑地板系统。
- 地板承载力通过角铝支架均匀分散。
- · 有不同种类支架系统可供选择安装OA地板。



	/pe 号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷		ng Load 対载荷N	Remarks 备注
International	国内型号	mm	N	N	N	N/M²	10次	10000次	
SC668	HDG600 35QG	600×600×35	≥2990	670	≥8890	≥12500	2215	1548	
	HDG600 30QG	600×600×30							
SC800	HDG600 35BG	600 × 600 × 35	≥3596	670	≥10799	≥19796	2959	2215	
	HDG610 35BG	610×610×35							
SC1000	HDG600 35ZG	600 × 600 × 35	≥4498	670	≥13494	≥23294	3596	2959	OA 智能化
301000	HDG610 35ZG	610×610×35	≥4490	670	≥13494	≥Z3Z94	5556	2959	楼宇架空标 准活动地板
SC1250	HDG600 35ZG	600×600×35	≥5595	670	≥16797	≥33084	4498	3596	(CISCA)
301250	HDG610 35ZG	610×610×35	≥5595	070	≥10/9/	≥33064	4490	3596	
SC1500	HDG600 35ZG	600 × 600 × 35	≥6693	670	> 20000	≥42581	FFOF	4498	
301500	HDG610 35ZG	610×610×35	≠0093	670	≥20090	#4256T	5595	4496	
000000	HDG600 35ZG	600 × 600 × 35	~0000	- 0000	> 0000 > 0000 > 40704 0000 55	FFOF			
SC2000	HDG610 35ZG	610×610×35	≥8898	670	≥26685	≥49784	6693	5595	
SC2500	HDG600 35ZG	600 × 600 × 35	>11002	- 44000	> 00000	20000 > 50000	9909	6603	
302500	HDG610 35ZG	610×610×35	≥11093	670	≥33290	≥58280	8898	6693	

全钢高架活动地板





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贴面地板







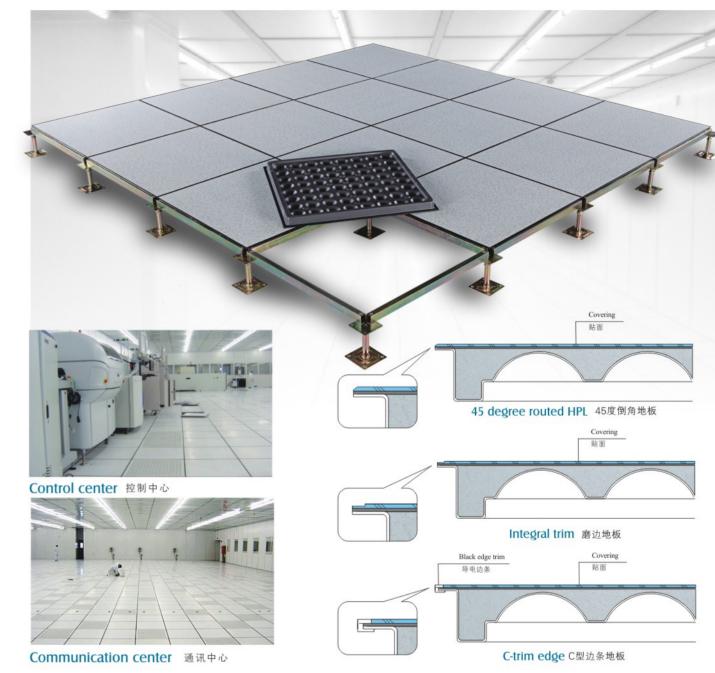
Feature

- · Used for computer room, data center and communication center
- · Excellent rolling load & ultimated load performance · Light weight cement makes panels solid and quiet
- · Black/grey epoxy paint finish for long time protection
- · Class A flame spread and smoke development rating
- · Convenient installation supplies an excellent solution for office integrity, wiring and date cable service
 - 适用于计算机房、数据中心、通讯中心 • 滚动载荷与极限载荷强
 - 轻质水泥填充
 - 黑/灰色喷塑美观且使用寿命长
 - ·防火A级
 - 便于安装、布线,维护机房整体性

Wide range finishes available 贴面材料

- · High Pressure Laminate · Conductive vinyl tile
 - Ceramic
 - Carpet tile
 - · Linoleum
 - · Granite/Marble
 - 防火板
 - · 导电PVC
 - 瓷砖 地毯
 - 亚麻地材

 - 花岗岩/大理石



Ту	pe	Size	Concentrated	Impact Load	Ultimate Load	Uniform Load	Rolli	ng Load	Remarks		
型	뮥	尺寸	集中载荷	冲击载荷	极限载荷	均布载荷	滚云	b载荷N	备注		
International	国内型号	mm	N	N	N	N/M²	10次	10000次			
SC668	HDG600 35QG	600 × 600 × 35	≥2990	670	≥8890	≥12500	2215	1548			
	HDG600 30QG	600×600×30			≥10799				Floor system		
SC800	HDG600 35BG	600×600×35	≥3596	670		≥19796	2959	2215	resistance		
	HDG610 35BG	610×610×35							1 × 10 ⁶ -1 × 10 ⁹ 0		
SC1000	HDG600 35ZG	600 × 600 × 35	≥4498	670	≥13494	≥23294	3596	2959	(系统电阻)		
	HDG610 35ZG	610×610×35	≥4496	070	≥13494	≥23294		2333			
SC1250	HDG600 35ZG	600 × 600 × 35	~ FF0F	670	~ 16707	> 22004	4400	2500	可提供进口或		
SC1250	HDG610 35ZG	610×610×35	≥5595	670	≥16797	≥33084	4498	3596	国产的多种色		
SC1500	HDG600 35ZG	600 × 600 × 35	>6603	670	> 20000	~ 42E01	EEOE	4400	彩与花纹的防		
301500	HDG610 35ZG	610×610×35	≥6693	670	≥20090	≥42581	5595	4498	静电面材安装		
000000	HDG600 35ZG	600×600×35			600×600×35					FFOF	板高度
SC2000	HDG610 35ZG	610×610×35	≥8898	670	≥26685	≥49784	6693	5595	≥60mm		
	HDG600 35ZG	600 × 600 × 35			≥33290						
SC2500	HDG610 35ZG	610×610×35	≥11093	670		≥58280	8898 6693				



CALCIUM SULPHATE ACCESS FLOOR

硫酸钙高架地板



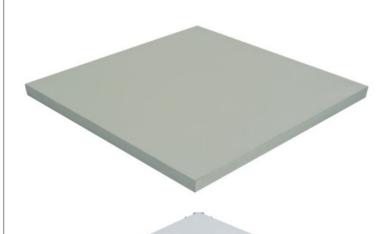


® (€ PSB Intertek SGS





ENCAPSULATED PANEL全包硫酸钙地板



Structure

Encapsulated with high density fiber calcium sulphate core. 结构:全包硫酸钙地板由上下镀锌钢板和高密度硫 酸钙基材构成。

600×600×30mm



- · Full steel encasement and good sealing.
- · Constituted by all steel sheet, good loading capacity. High dimension accuracy and excellent interchangeability.
- · Water-proof, fire-proof, antisepsis and sound insulation.
 - · Elaborated made and good decorative effect.
 - 全包封闭结构、密封性强:
 - 承载力、抗冲击性能高;
- •表面平整度、外形尺寸精确度高,地板可任意互换;
 - 阻燃、隔热、隔声、防腐等性能好; • 外表整齐美观、装饰性强、行走脚感舒适。

Type 型号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷		ing Load 动载荷N
International	mm	N	N	N	N/M²	10次	10000次
Heavy duty重型	600×600	≥4498	670	≥13494	≥23294	3596	2959
Extra Heavy duty加强型	600 × 600	≥5595	670	≥16797	≥33084	4498	3596

CALCIUM SULPHATE ACCESS FLOOR

硫酸钙高架地板



PVC SEALED PANEL PVC封边

Size

600×600×30mm

Structure

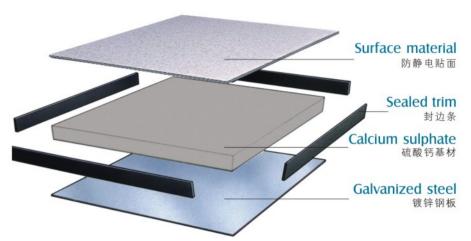
Floor panel is encapsulated to provide full steel encasement, steel to be high quality galvanized steel sheet as top and bottom. High density calcium sulphate as the core.

结构: 其材用高密度硫酸钙基材,表面采 用HPL/PVC贴面,底面镀锌钢板,四周黑 色PVC封边。

PVC panel

Floor consists of calcium sulphate core. Galvanized steel sheet/aluminum foil is bonded to the bottom. HPL or PVC is stuck to the top, four edges sealed with PVC edging strip.

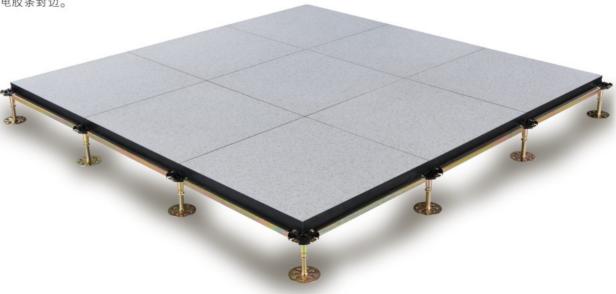
地板采用高密度硫酸钙板基材,表面可 粘贴防静电HPL、导电PVC,底面采用 优质镀锌板(或铝皮)封底,四周采用 导电胶条封边。



Application

Anti-static calcium sulphate raised floor is widely used in telecommunication room, power station, computer room, factory clean room and other anti-static requiring places.

广泛应用于电信, 电力电子, 微电子, 医学等行业的程控机房, 计算机机 房,电力调度室,洁净净化厂房等要求防静电场所。



GRC FLOOR GRC地板 © C E PSB Intertek SGS

GRC FLOOR

GRC 地板



Structure

GRC地板以优质水泥为主要原料,再配以加强纤维,不仅保持了原料本身优越的耐火性,更提高了成品的承载性。由于表面未采用金属材质,因此在脚感上更接近于实体楼板,营造出脚踏实地的感觉。

GRC地板体积小、自重轻,不仅在施工时可更为便捷,更可减轻架空地板系统自重对楼板产生的复合,使得楼板的使用寿命更为持久。

地板板块更加轻薄,加之系统高度可调节,提高 地板下布线的空间利用率。安装简便,尺寸精 准,地板之间可任一呼唤。环保材料,可回收再 利用,节省资源,保护环境。 GRC floor uses high quality cement and gypsum powder as main raw materials, combined with reinforcing fiber, not only keep the raw material itself superior fire resistance, more raised the bearing of products. Because the floor did not use a metal material on the surface, the foot feeling is closer to the floor entity and creates a down to earth feel.

GRC floor small size, light weight, not only can be more convenient in the construction, but also reduces the load of the raised floor system to the floor, making the service life of the floor more durable.

GRC floor plate is more light, combined with adjustable height, improves the space utilization of underfloor wiring. Easy installation, high demension accuacy and excellent interchangeability. Recyclable, save resources and protect the environment.

Type 型号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷		ng Load b载荷N
International	mm	N	N	N	N/M²	10次	10000次
Heavy duty重型	500 × 500×26	3000	3000	≥9000	≥12500	2215	1548
Extra Heavy duty加强型	500 × 500×26	5000	5000	≥15000	≥28598	4121	3210

GRC FLOOR GRC地板



GRC FLOOR

GRC 地板





Feature

- 全包封闭结构、密封性强;
- 承载力、抗冲击性能高;
- 表面平整度、外形尺寸精确度高, 地板可任意互换;
- 阻燃、隔热、隔声、防腐等性能好;
- 外表整齐美观、装饰性强、行走脚感舒适。
- · Full steel encasement and good sealing.
- Constituted by all steel sheet, good loading capacity.
- · High dimension accuracy and excellent interchangeability.
- · Water-proof, fire-proof, antisepsis and sound insulation.
- · Elaborated made and good decorative effect.





INORGANIC CEMENT FLOOR

无机质水泥地板





® (€ PSB Intertek SGS



INORGANIC CEMENT FLOOR 无机质水泥地板

Size 500×500×25mm

Structure

无机质网络地板是由硅酸盐、无机纤维、矿物纤维、石英砂等材料经过高压一次成型的 新一代绿色环保网络地板。

该地板无任何挥发性有毒物质及辐射, 可以 完全被分解,使用年限与楼宇相同。

每块地板自带穿线孔, 地板四角镀锌底座支 承,不带横梁系统。

安装后平整度高, 无发软的感觉, 其表面铺 设材料可用强化地板、PVC、方块地毯等。

FRC access floor is made of silicate, inorganic fiber, mineral fiber, quartz sand, etc, once molded after high pressure.

The panel has no volatile toxic chemicals and radiation, and can be decomposed completely. Its service time is the same as the building.

Each panel has hole for wires, four corners supported by pedestals, with no stringers.

Good flatness and solid feeling. Finishes can be laminate flooring, PVC, carpet, etc.

Type 型号	Size 尺寸	Concentrated 集中载荷			Uniform Load 均布载荷	Rolling Load 滚动载荷N	
International	mm	N	N	N	N/M²	10次	10000次
Heavy duty重型	500 × 500×25	3000	3000	≥9000	≥12500	2215	1548
Extra Heavy duty加强型	500 × 500×25	5000	5000	≥15000	≥28598	4121	3210

INORGANIC CEMENT FLOOR

无机质水泥地板



INORGANIC CEMENT FLOOR 无机质水泥地板

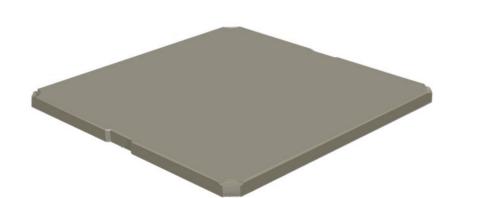




Feature

- · Full steel encasement and good sealing. · Constituted by all steel sheet, good loading capacity.
- · High dimension accuracy and excellent interchangeability.
- · Water-proof, fire-proof, antisepsis and sound insulation. · Elaborated made and good decorative effect.
 - 全包封闭结构、密封性强;
 - 承载力、抗冲击性能高;
- ·表面平整度、外形尺寸精确度高,地板可任意互换;
 - 阻燃、隔热、隔声、防腐等性能好;

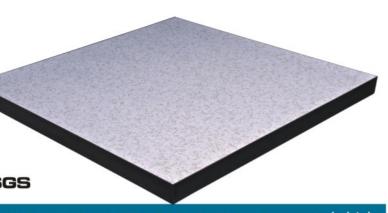






WOODCORE ACCESS FLOOR

木质高架活动地板







(F) Intertek SGS



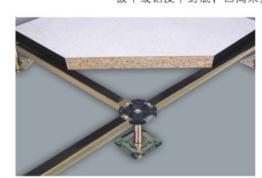


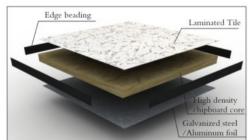


Structure

Woodcore access floor consists of high-density(720Kg/m3) chipboard. Galvanized steel sheet/aluminum foil is bonded to the bottom of the chipboard. HPL or PVC is stuck to the top of the chipboard, four edges are sealed with PVC

地板采用高密度阻燃刨花板(720Kg/m³)基材,表面可粘贴防静电HPL、导电PVC,底面采用优质镀锌 板(或铝皮)封底,四周采用导电胶条封边。





Size

600×600×40mm 600×600×30mm

Feature

· Light weight, small noise when working

· Dimension accuracy with nice interchangeability.

· Strong loading capacity, fire resistance B2 and excellent anti-static properties. · Good sealing and water-proof.

• 重量轻、噪音小;

• 外形尺寸精确度高, 地板可任意互换:

· 承载能力好, 防火性能达B2级, 防静电性能优;

•密封性好, 防潮性能强;

Type 型号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷		ing Load 动载荷N
International	mm	N	N	N	N/M²	10次	10000次
Light duty 轻型	600×600	≥2990	670	≥8890	≥12500	2215	1548
Medium duty 中型	600×600	≥3596	670	≥10799	≥19796	2959	2215
Heavy duty 重型	600 × 600	≥4498	670	≥13494	≥23294	3596	2959

WOODCORE ACCESS FLOOR

木质高架活动地板







® (€ PSB Intertek SGS

ENCAPSULAT

Structure

Floor panel is encapsulated to provide full steel encasement, steel to be high quality galvanized steel sheet as top and bottom. High density chipboard as the core.

结构: 其材用高密度刨花板, 上、下采用优 质镀锌钢板包边, 地板四周镀锌钢板经冲 压铆接而成。

Size

600×600×30mm 600×600×25mm





Galvanized steel 镀锌板

Chipboard core 高密度刨花板

Galvanized steel 镀锌板

Application

- · Woodcore panel is widely used in high-grade rooms, such as banks, telecommunication centers, smart offices and computer rooms.
- · This panel is particularly suitable for areas of high humidity.
- · High dimension accuracy and environmental proof.

应用:

- 各种防静电要求、承载要求、铺装效果要求高档的场合,如银行、
- 镀锌板包边木地板,尤其适用于较潮湿的机房环境。
- 外形尺寸精确度高,绿色环保。



Structure 结构示意图

Type 型号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷	Rolling Load 滚动载荷N	
International	mm	N	N	N	N/M²	10次	10000次
Light duty 轻型	600×600	≥2990	670	≥8890	≥12500	2215	1548
Medium duty 中型	600×600	≥3596	670	≥10799	≥19796	2959	2215

ALUMINUM ACCESS FLOOR

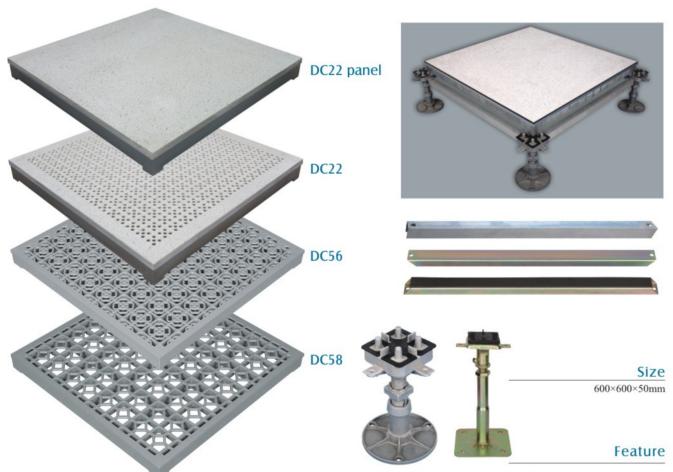


铝合金高架地板 ® ⓒ C € PSB Intertek SGS









Aluminum access floor is die-casting with aluninum ingot which is light and anticorrosion. Aluminum access floor is widely used in the Aerospace Center, Military Command Headquarter, Data Center and Clean Room. 压铸铝合金地板质地轻巧,耐腐蚀。广泛的应用于航天中心,军事指挥中心,数据中心和洁净室。

	pe 号	Size 尺寸	Concentrated 集中载荷	Impact Load 冲击载荷	Ultimate Load 极限载荷	Uniform Load 均布载荷		
International	Material	mm	N	N	N	N/M²	10次	10000次
A1000	ACD-12	600×600	≥4498	670	≥13494	≥23294	3596	2959
A1500	ACD-12	600×600	≥6693	670	≥20090	≥42581	5595	4498









高架地板配件







"ZT FLOOR" presents an extensive choices of accessories, including electrial boxes, grommets, panel lifters and air diffuser and so on.

"朝晖"牌地板提供配件,如走线盒、电插座、支架胶水等。







Round brush grommet 圆形刷子走线盒 Surface brush grommet 方形刷子走线盒 Split integral grommet 半开型走线盒





Diameter 19.5cm





Round Grommet 圆形走线盒

Square Grommet 方形走线盒

Integral grommet 长方形走线盒







Single/Double cup lifter 单(双)吸盘

Outlet box B 地插座B

Outlet box C 地插座C

____ 17 ______

ADJUSTABLE PLASTIC PEDESTALS

室外支架





₩ (F PSB Intertek SGS





Wide Range of Applications

- -terraces
- -balconies
- -pool decks
- -water features
- -landscape area's
- -roofs
- -interior flooring
- -shop design

用途广泛:

- -台阶/斜坡
- -阳台
- -泳池甲板
- -水景/园景区
- -屋顶
- -室内地面
- -店内装潢



















Support real figure 支架实物图







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UNDER STRUCTURE

支架系统



Stringers 横梁

Stringers provide lateral resistance to heavy rolling loads & seismic loading.

横梁可提升滚动载荷和抗震载荷。



Cross head pedestal 铝头/铁头支架



Flat head pedestal 平头支架



Round head pedestal 圆头支架

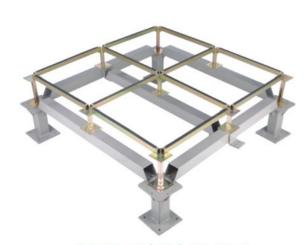
Finished flooring height (FFH)from 80mm to 2,000mm is available, with high loading strength.

"朝晖"牌地板和"ZTFLOOR"牌地板支架高度可以定做,完成高度80mm到 2,000mm.

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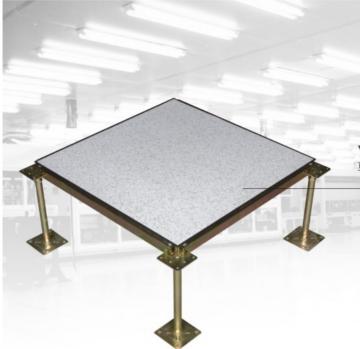
Heavy pedestal 重型支架



Seismic pedestal 防震支架系统



规格:Φ38 规格:Φ32 Bracing clamp抱箍



COVERING MATERIAL 贴面材料

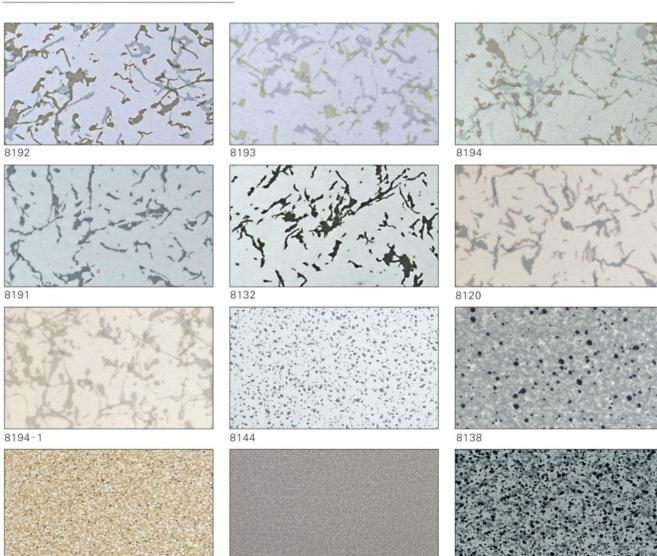
Variety of covering materials are available 更多贴面可供选择

A Comprehensive selection of ZTFLOOR covering materials are available including more colors of HPL, PVC and other interior finishes, to satisfy customer's different requirements.

Please contact with us if you want other covering material which is not listed below.

为增强功能性和美观性能,中天朝晖牌抗静电活动地板 提供更多颜色的防火板、PVC或其他贴面材料。

High Pressure Laminate(HPL) 防火板

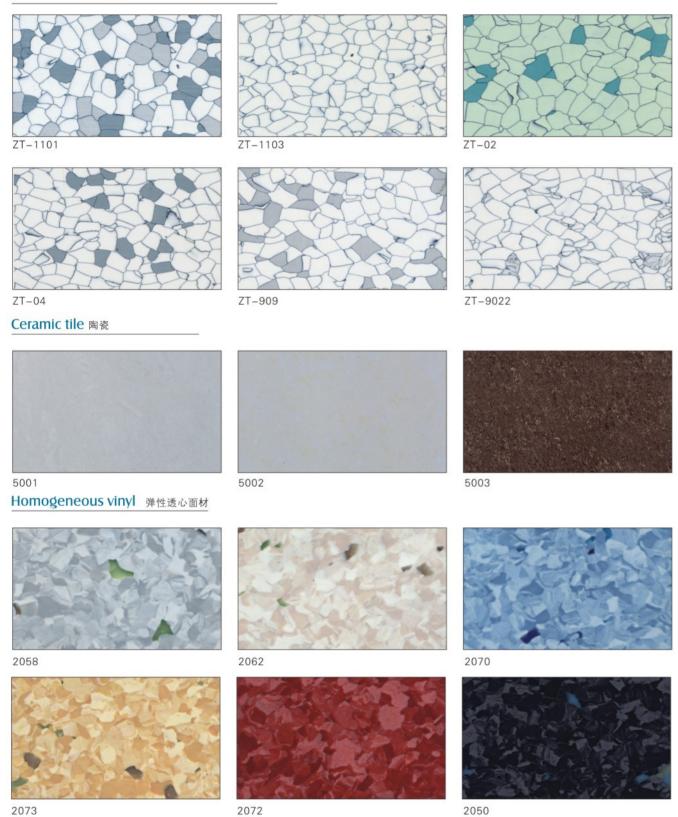


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COVERING MATERIAL

贴面材料

Conductive PVC tile 导电PVC地砖(104-1060hms)



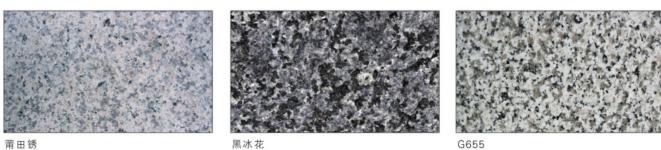
COVERING MATERIAL

贴面材料

Linoleum 环保亚麻







数据中心产品 **Data Center Product**







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温控变风量风阀 Temperature Control VAV Damper



○ 概述 Description

ZTFLOOR underfloor temperature control VAV damper is used to provide sufficient air to accommodate the peak energy demands of the rack, resulting in wasted bypass air and over-cooling during all less than peak conditions. The damper measures the incoming air temperatures at the face of the rack and adjusts the VAV damper to control the air flow and ensure that the temperature at the face of the rack is never above the maximum allowable set point provided by the

中天公司的温控变风量风阀广泛用于数据中心, 使用过程 中,温控风阀安装于相邻的两排机柜中间,通过电子传感器 来侦测机柜柜体内部的温度变化, 并把检测数据传送到电 脑, 电脑会比对此结果与程序提前设定的温度温度差异, 由 电脑自动调节风阀开闭角度的大小来调整风量的强度。由此 控制机柜内部温度恒定, 进而达到节约能源消耗的目的。

○ 功能 Functions

有效管理多种可变负荷。在数据中心运行过程中,各种柜机与服务器设备一般存在不同的负荷要求。因此,数据中心设备可靠运行的关键 之处在于控制好进入数据中心的气流。在达到设备功能要求和降低能量消耗之间达到完美平衡。即在设备全负荷运行时能保证合适的气流,

富华智能送风空调技术能达到这样的要求。通过安装在每个气流组件下方的变风量装置对机柜进风量进行控制。每个送风组件都可以当作 一个单独的单元。使用过程中,智能温控变风量风阀和格珊板配套使用,满足各种设备对不同风量的特定要求,灵活调整从而高效冷却各种设

The data center is in constant flux. Load diversity between racks and variable server loads are the norm. Managing airflow into the data center space is key to achieving reliability. New demands to reduce energy consumption in the green data center require a fine balance to ensure proper air flow to each rack during peak IT hardware operation, while not cover-cooling partial load and idle states a diverse environment.

Fuhua's VAV damper electronically controlled variable air volume damper used in conjunction with power fan adjusts the amount of air to meet the specific needs of the rack it services. This flexibility can help effectively cool facilities implementing virtualization, cloud computing and idle server shutdown strategies with saving energy.

○ 产品特点 Product characteristics

A.具有PID(比例积分微分)控制系统

B.断电后风阀自动保险地完全打开

C.不必经常性的维护

D.安装快捷、容易

E. 多点测温控制可供选择

F.高精度、快速反应温度测量

G.配有通讯接口(RS485)

H.用户可编程参数设定

I.结构坚固、可靠耐用

J.8叶片风阀用于大的开阔空间

K.风阀位置在0-100%之间任意调节

L.可视温度显示屏方便巡视

M. 电源电压110V/60Hz与220V/50Hz可选

A.With PID multiloop control system

B.Power disruption fail safe to fully open position

C.No regularly schedule maintenance required

D.Quick and easy installation

E.Multiple control options available

F.High precision, Quick response temperature measurement

G.Network communication function (RS485)

H.User programmable set point

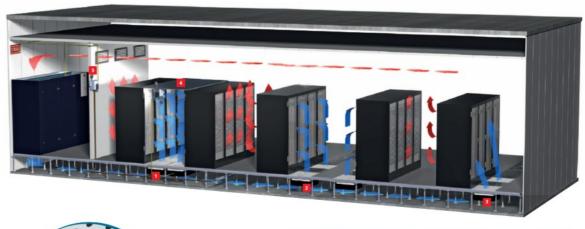
I.Robust design for high reliability

J.8 van damper for larger open area

K.Damper position is infinitely variable from 0-100%

L.Viewable temperature display screen for walkthrough check of each rack

M.Supply voltage optional between 110V/60Hz and 220V/50Hz









○ 性能参数 Specifications

4000 3500 3000 2500 2000 1500 1000 2.5 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 压力 Static Pressure (Pa)

型号选择 Options

A、单点温度检测与控制(型号EAD-S-N)

a) 温度传感器为K型高精度热电偶

B、多点温度检测与控制(型号EAD-M-N)

a) 温度传感器采用总线式专用高精度温度采集器

b) 温度检测点最多为32个, 一般配3至5个(可选配)

A、1 rack mounted sensor (EAD-S-N)

a) Mounted sensor is K-type thermocouple of high accuracy

B, multiple rack mounted sensor (EAD-M-N)

a) Mounted sensor uses temp pro of high accuracy

b) Sensor maximum can be applied with 32pcs, but usually 3 to 5

数据中心产品

Data Center Product





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温控变风量风扇 Temperature Control Fan System





Fan Unit 单风扇





Four-Fan Unit 4风扇

ZTFLOOR Air boosted Power Fan Unit is designed to provide a blast of cooling through an individual directional airflow panel. The temperature controlled fan units are available quad fan models. The fan has multiple control options to automatically turn on when conditions require additional cooling. This powerful solution is ideal for solving the toughest hot spots in a data center.

风扇设计原理如下,通过调整一个或四个相对独立的风扇转速,从而为机房提供有效冷却方式。工作过程中,当系统的温度传感器检测到当前 温度超过系统要求的范围时。 系统自动打开并调节温控风扇旋转速度。从而保证温度保持恒定。 这也是中天公司为解决数据中心温度要求而 提供的一种高效的解决方案。

○ 性能特点 Performance Characteristics

A.零维护

B.容易安装

C.多种控制方式可以选择

D.电子传感侦测系统

E.温度控制精确高效

F.自由设定温度控制点

G.每排机柜温度可自由设定

H.风量可由0 到100% 自由控制 I.配套600×600或24"×24" 地板系统使用 A.Zero maintenance

B.Installation can be carried out by IT staff

C.Multiple control options for both models available

D.VN - client sensor network

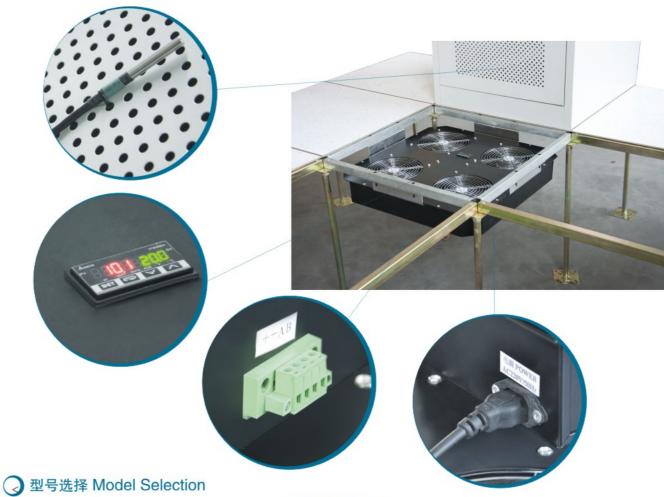
E.High Precision, Quick Response Temperature Measurement

F.User programmable set point

H. Viewable Peak Temp for walkthrough check of each rack

G.Infinitely variable fan speed from 0-100% for precise airflow control

l.Easily installs into either 24" or 60cm raised floor systems



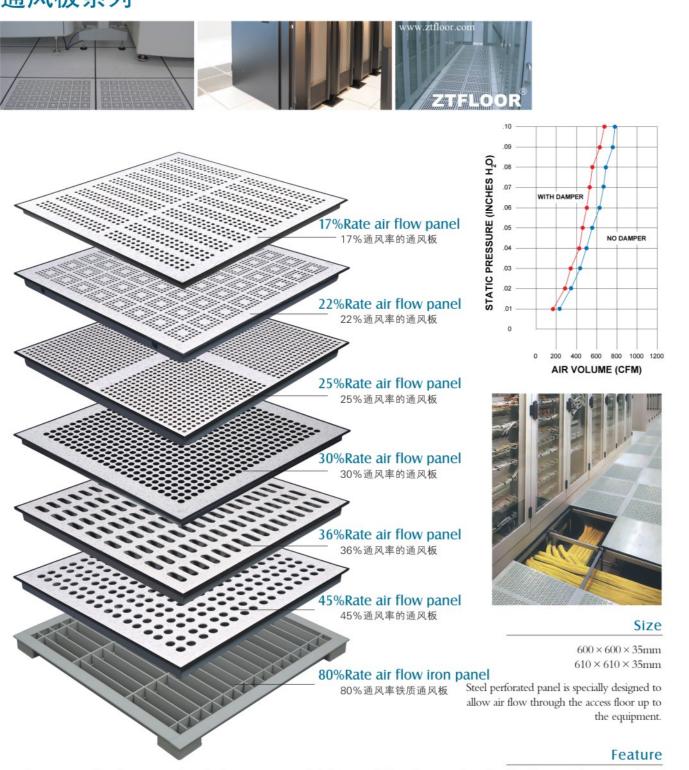
温控风扇参数表 Parameter Table of Temperature Control Fan System

	数名称 arameter	电源参数Pd	wer Parameters	功率(W)	风量	风机类型	风机数量	温度传感器数量	噪声	通讯接口	
	ame	额定电压(V) Rated Voltage	额定频率(Hz) Rated Frequency	Power	(m³/h) Blowing Rate	风机类型 Fan Type	Fan Quantity	温度传感箭致重 Temperature Sensor Quantity	噪声 Noise	囲れ接口 Communication Interface	
ABU-1AC350	0-SN	220	50	140	2670	AC350	1	1	58	RS485	
ABU-1AC350	0-MN	220	50	145	2670	AC350	1	3	58	RS485	
ABU-1AC400	0-SN	220	50	195	3500	AC400	1	1	60	RS485	
ABU-1AC400	D-MN	220	50	200	3500	AC400	1	3	60	RS485	
ABU-1AC450	0-SN	220	50	235	4500	AC450	1	1	62	RS485	
ABU-1AC450	0-MN	220	50	240	4500	AC450	1	3	62	RS485	
ABU-1EC350	0-SN	220	50	175	3600	EC350	1	1	65	RS485	
ABU-1EC350	0-MN	220	50	180	3600	EC350	1	3	65	RS485	
ABU-1EC400	0-SN	220	50	395	4800	EC400	1	1	68	RS485	
ABU-1EC400	D-MN	220	50	400	4800	EC400	1	3	68	RS485	
ABU-1EC450	0-SN	220	50	330	5600	EC450	1	1	69	RS485	
ABU-1EC450	0-MN	220	50	335	5600	EC450	1	3	69	RS485	
ABU-4AC200	0-SN	220	50	280	3100	AC200	4	1	65	RS485	
ABU-4AC200	0-MN	220	50	285	3100	AC200	4	3	65	RS485	
ABU-4EC200	0-SN	220	50	225	3600	EC200	4	1	66	RS485	
ABU-4EC200	0-MN	220	50	230	3600	EC200	4	3	66	Rs485	

AIR FLOW SYSTEM

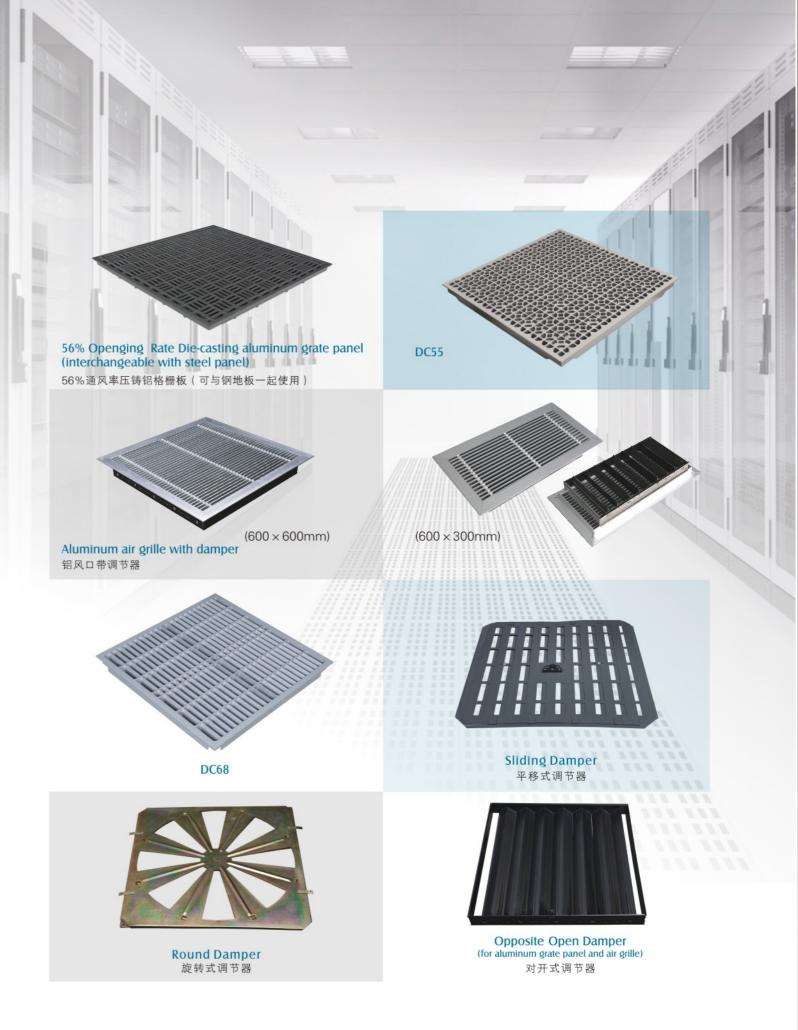


通风板系列



Provide superior cooling for managing heat loads in mission critical facilities. Available with top surface adjustable dampers. The steel perforated panels are same size and finish as the solid panel, so they are available with High Pressure Laminates, Vinyl and rubber floor coverings interchangeable with woodcore panel/calcium sulphate panel.

特点: 提供通风功能, 可与风量调节器一起使用。以上通风板可以和贴面地板、木地板、硫酸钙地板配套使用。



数据中心产品 **Data Center Product**



气流方向实验图

Zone 3

Zone 2

Zone 1

导向型通风板 Air Flow System

○ 产品概述 Product Overview

富华的导向型通风板定向气流角度直接送风给服务器机柜,不同于 其他送风格栅,直接送风角度对准服务器机柜,极大地减少了旁通风 量。和标准42U机柜--配对使用。提供定向送风,设计坚固,提高能

Quite different from other air-supply racks , Fuhua oriented ventilation plate can supply the wind directly to server cabinet by adjusting the angels of airflow, to ensure the whole directions' blowing rate, instead of blowing against the server.



解剖图 Structure

主要性能特点 Main Performances:

- ◆轻松冷却大容量机柜:具有较大的开口面积与风量。更为重要的是导向叶片有一个偏转角度将风导 向服务器机柜,达到93%的岗位环境调节效率。这意味着从格栅出来的93%的风量进入服务器机柜的 正面,提供最高的冷却功率和能量。典型的通风板只有30~50%的风量直接吹向机柜。这个改进使得 导向型通风板能够有效地为单个机柜提供超过25KW的冷量。
- ◆坚固美观耐用: 1072kg的滚动载荷, 1134kg的设计载荷以及2.0的最小安全系数,设备可以在送风 格栅上移动,无须担心格栅的强度。另外带有配套的素面,使得产品有绝缘层防静电且更加美观。
- ◆改善数据中心财务业绩;导向型通风板最大程度提高新建或现有的数据中心的财务业绩。精确的送 风减少旁通气流,减少机房空调设备。改造工程设定机房空调定速风扇在备用模式或调整变速风扇在 低静压工况下运行,以节约能量。同样地93%的风量捕捉效率,使得设备整体的冷却容量大为改进,
- ◆无需冷热通道隔板隔离:数据中心冷热通道隔离不利于防火,而且布置设备很不便利。不同于其他 的垂直的竖向气流,导向型通风板将角度对准机柜,使机柜有效冷却。可以达到相当于隔板隔离的效 果。
- · Easy-cooling cabinet with large capacity:

It has bigger opening area and larger airflow. What's more, the guide vane can supply airflow through the server cabinet, covering 93% of the whole interspace. It means 93% airflow from the rack can get into the server cabinet to offer the best cooling service. For normal ventilating board, it can only supply 30-50% of them through into the cabinet. This improvement makes it possible for oriented ventilation plate to effectively provide more than 25KW's refrigerating effects to every

Solid, artistic and durable:

1072kg rolling load, 1134kg designed load with the minimum safety factor of 2.0, the equipments can be moved on the airflow rack, without worrying about the rack strength. The attached insulating outer layer makes it nicer and most importantly, it's anti-static.

◆ Improve the financial performance of data center:

To a largest degree, oriented ventilation plate can improve the financial performance of new build or existing data center and reduce the number of air-conditioning equipments in a room. In order to save energy, reconstruction project sets speed fan in standby mode or adjust the speed fan to run in the low and static pressure condition. As the same level, 93% of the air capture efficiency that makes the equipment's overall cooling capacity greatly improved, however, 40% of the cooling facilities investment reduced.

No isolation by cold and hot channel clapboard is needed:

The cold and hot channel isolation is not only bad for fireproof, but also inconvenient to layout equipments. Different from the vertical air, the oriented ventilation plate will stay against the cabinet to ensure its cooling effects, which will be much better than diaphragm isolation.

带毛刷型出线盒 Brushed Grommet

该系列产品解决了机房内空调制冷优化及机房节能问题,一经推向市场就帮助数据中心解决了棘手的高密度热源制冷节能问题。大大减少 数据中心冷空气流失,降低电费,延长仪器使用寿命,既节能又美观。

These series have solved the air-conditioning optimization and the energy saving issues in computer rooms immediately after it was put into markets. What's more, it reduces the waste of airflow in the dada center, lessens the power fare and lengthens the instruments' service time. It's energy saving and beautiful to look at.

○ 产品特征 Characteristics

- ◆产品与架空型防静电地板牢固结合 It is firmly combined with the raised flooring.
- ◆32平方英寸可布线面积,可满足各种不同的布线要求,包括100安培电源连接器 Its 32-square-inch cabling covering can satisfy different cabling requirements, including 100 Ampere power connector.
- ◆该产品满足美国国家防火协会NFPA 75节5-4.4相关规定 This product accords with the relative rules of NFPA in Section 75, Part 5-4.4.
- ◆该产品没有易松脱或分离部件
- Such products has no components easy to loose.
- ◆ 符合(RoHS)欧盟对电气、电子设备(产品)限制使用某些有害物质的规定 According with relative EU ROHS rules on limits for harmful substance



整体嵌入型 Overall embedded



分体嵌入型 Embedded split

圆形嵌入型

Round embedded

○ 产品安装后效益 Benefits after installation

◆密封线缆开口,阻断旁路气流 Sealed cabling holes to block-up the blas flow.

◆增加空调制冷效率

Improve the cooling efficiency of air conditioners.

◆增加数据中心IT设备密度 Increase the amount of instruments in the data center.

◆增加地板下静压箱压力, 使冷气能够被传送的更远 Increase the pressure of plenum chamber under the floor, to ensure the cooling airflow can be sent further.

◆提高出风地板的出风量 Increase the air volume of from the air exhausting floor.

◆降低湿度控制费用

安装于预设的走线口。

the floors and cabling.

Reduce the humidity and control the cost.

◆满足先决条件,数据中心需要按照热通道与冷通道布局

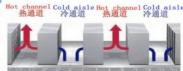
○ 安装适用范围 Scope of installation

属于预先安装型,即在新装地板时,安装通讯电缆或电力电

缆之前, 在地板上开设与将产品安装尺寸相同的开口, 预先

The data center should be layoutted with hot channels and cooling channels, and it goes with it.

▶减少需要购买额外的空调费用 Reduce the cost for using more air conditioners.



It should be pre-installed at the designed cabling holes before installing

旁路气流走向-使用前与使用后对比 Bypass airflow toward - use before and after use contrast

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数据中心产品

Data Center Product





® (€ PSB Intertek SGS

地板送风空调系统

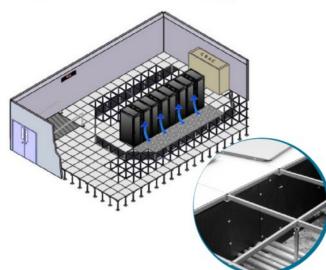
Underfloor Air System



(€ PSB Intertek SGS

节流布 In-Floor Velocity Adjustor



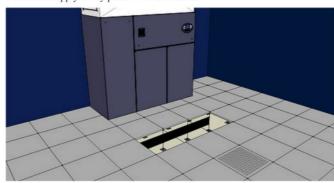


○ 功能 Functions

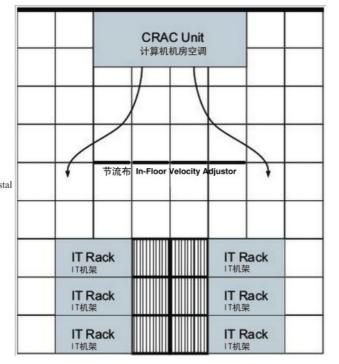
节流布(散流器)是经过反复试验改进,采用防火不燃纤维,经 特殊工艺处理加工而成的高科技产品。广泛用于数据通信机房,是通 信机房地板下送风系统重要组成部分。中天节流布具有通风、导风、 散流、防火等功能,能有效解决通信机房地板下送风中气流组织和气

ZT velocity adjustor is made by sandel fire fighting fabric and widely used in data center. This completely non-flammable cover ensures that the in-floor air velocity adjustor is completely sate to use in a supply plenum.

Velocity adjustor is designed to diffuse subfloor air and eliminate under floor air bypass. This simple scientific solution will balance subfloor pressure, which enables air supply at any place in the data center.



安装的速度调节器的典型模式 Typical Installation of Velocity Adjustor Kit



○ 性能特点 Performance Characteristics

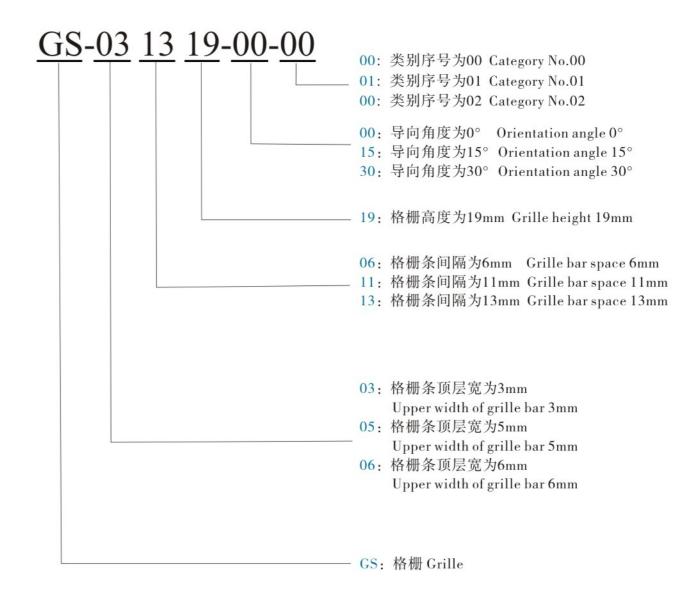
- ◆采用防火面料
- ◆ Sandel "Fire Fighting" Fabric
- ◆无需安装工具
- ♦ No tools required for installation
- ◆ Design to mount to typical raised floorpedestal
- ◆抗张强度(磅/英寸): 175 ◆Tensile Strength (lbs/inch): 175

○ 尺寸 Size

- ◆高 6", 12", 18" and 24" ◆6", 12", 18" and 24" in height
- ◆宽 24"
- ♦24" in width
- ◆自定义尺寸
- ♦ As customs' sizes

格栅 Grille

○ 格栅型号规则 Grille Types

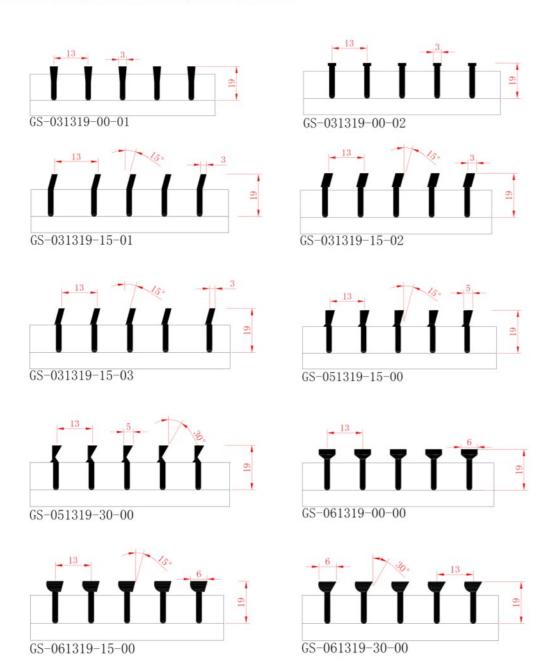


地板送风空调系统

Underfloor Air System



○ 格栅选型图与规则 Grille Type Figures And Rules



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注:尺寸单位是mm Notice: Unit of size is mm

地板散流器 Air Diffuser

○ 产品综述 Product Overview

地板散流器是一种由地板向上送风的空调系统的末端装置。 很多建筑上所采用的高架地板,使得我们的产品能够被非常巧妙 的安排在建筑物的内区和外区,我们的产品不仅能够像VAV系统一 样为使用者提供供舒适的空调系统,同时也能够为使用者调整室 内布局提供最大的灵活性。

该产品的外观能够满足于建筑上的所有现代化装潢的要求, 我们的产品采用灰白色作为标准色,我们同样可以提供客户所需 求外观颜色的产品。

我们的产品能够为空间布局调整提供最大的灵活性,安装在 高架地板上的散流器在使用者进行室内布局变换时,能够快速的 进行变换及安装。 Floor diffuser is a terminal device of the underfloor air conditioning system. The access floors used by many buildings make our products can be very clever arrangement in the building of the inner and outer regions. Our products are not only as the VAV system to provide the comfortable air conditioning systems, but also to provide maximum flexibility for users to adjust the indoor

An architecturally appealing face design compliments any contemporary decor and is available as standard in a gray finish as well as a wide variety of custom colors

Allowing extreme flexibility in space planning, the diffuser, once installed in the access floor panel, can be quickly relocated to accommodate changing conditions and floor layouts.

○ 产品选型 Product Selection



型号UFD-M-A-B地板"漩流"散流器应用于高架地板空气送风系统,而高架地板下部被作为是送风静压箱。该产品的核心送风口被设计成一个能够形成高速螺旋状"旋流"空气散流出口。该设计是获得送风和房间空气混合的最优化及使得使用者感到最大舒适度的完美结合。

Model UFD-M-A-B floor "swirl" diffuser is designed for use in raised access floor air distribution systems, where the floor cavity is used as a pressurized supply air plenum. The core design produces a high velocity helical "swirl" discharge air pattern. The design achieves high induction rates of room air, which optimizes mixing for maximum comfort conditions.





地板送风空调系统

Underfloor Air System







地板散流器 Floor Diffuser



UFD-M-B-G地板"漩流"散流器

型号UFD-M-B-G地板"漩流"散流器应用于高架地板空气送风 系统, 而高架地板下部被作为是送风静压箱。该产品的核心送风 口被设计成一个能够形成高速螺旋状"旋流"空气散流出口。该 型号比UFD-M-A-B的风口尺寸大,出风量也大。该设计是获得送风 和房间空气混合的最优化及使得使用者感到最大舒适度的完美结

Model UFD-M-B-G floor "swirl" diffuser is designed for use in raised access floor air distribution systems, where the floor cavity is used as a pressurized supply air plenum. The core design produces a high velocity helical "swirl" discharge air pattern. Both of the outlet size and the air volume of this model are larger than those of Model UFD-M-A-B. The design achieves high induction rates of room air, which optimizes mixing for maximum comfort conditions.





注: UFD-M-B-G散流器高度115mm,外框直径295mm,地板需要开孔圆直径265mm。 UFD-M-B-G diffuser height 115mm, frame diameter 295mm. The floor requires opening round diameter 265 mm.



UFD-E-B-G地板"漩流"散流器

型号UFD-E-B-G为带有执行器的地板"漩流"散流器,应用于高 架地板空气送风系统, 而高架地板下部被作为是送风静压箱, 内建 的模块化执行器能够在系统冷风负荷运行时提供变风量的风量控制 时获得精确的匹域温度控制效果。该产品的核心送风口被设计成一 能够形成高速螺旋状"漩流"空气散流出口。该型号与UFD-M-B-G的出风口尺寸相同,出风量也相同。该设计是获得送风和房间空气 混合的最优化及使得使用者感到最大舒适度的完美结合。

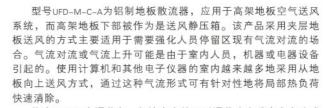
Model UFD-E-B-G floor "swirl" diffusers with actuators are designed for use in raised access floor air distribution systems, where the floor cavity is used as a pressurized supply air plenum. An integral modulating actuator provides variable air volume control in cooling applications for precise zone temperature control. The core design produces a high velocity helical "swirl" discharge air pattern. The outlet size of this model is same as that of Model UFD-M-B-G, as well as the air volume. This design achieves high induction rates of room air, which optimizes mixing for maximum comfort conditions.

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若选配了风向调节盘, 气流方向就可以调节(由垂直方向改成 横向,或由横向改成垂直力方向):产品在出厂前已根据订货时 的要求预先调好方向, 若要改变出风方向, 则在现场通过旋转风

该地板散流器不适于直接安装在座位底下,通常,只需离座位 40cm的地方就可安装地板散流器。该产品噪声小,需要调整室内 布局时,只需移动装有地板散流器的地板位置,无需大量的工作

Model UFD-M-C-A aluminum floor diffuser is designed for use in raised access floor air distribution systems, where the floor cavity is used as a pressurized supply air plenum. The introduction of supply air through false floor systems is ideally carried out at locations in which convection currents are to be supported in occupied zones. Convection or lift currents can be caused by people, machines or electrical devices. Air flow from the floor to the ceiling is becoming increasingly popular in offices equipped with computers and other electronic devices. Local thermal loads are effectively discharged by means of this principle.

If the diffuser is equipped with the damper, the airflow direction can be adjusted (from vertical to horizontal or from horizontal to vertical). The airflow direction has been adjusted in advance according to the order requirement when the product is in the factory. The direction can be changed by rotating the damper on scene.

Floor diffusers are installed at locations which are not continuously occupied. They can be deployed at distances of as little as 40cm from seating. The noise is small. When you need to adjust the indoor layout, simply move the floor equipped with the diffuser, without a lot of work or





注: UFD-M-C-A散流器高度170mm, 外框直径200mm, 地板需要开孔圆直径170mm UFD-M-C-A diffuser height 170mm, frame diameter 200mm. The floor requires opening round diameter 170 mm



地板送风空调系统 Underfloor Air System





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地面式单冷型变风量末端 Ground Single Cold Type Variable Air Volume Terminal

概述 Description

地面式单冷型变风量末端 (Ground single cold type VAV, 下文简称VAV-GSC) 是专为架空地板送风系统设计的新型末端产 品,是在吸取了多年工程实践和产品应用成功经验基础上,继承 了传统变风量末端产品优点,适应地面送风系统应用日益广泛的 市场需求, 能够充分体现地面送风系统的技术优势, 即良好的通 风效果、改善室内空气品质、节能以及热舒适性等优势。结构上 采用超薄型设计,可以适应不同地板高度要求,安装于地板内, 广泛应用在各种地面送风系统中的内区和外区。

Ground single cold type variable air volume terminal, (here below we call it VAV-GSC) is newly designed for raised floor air supply system. It absorbed the good experience in construction practices and products applications. With advantages of traditional variable air volume terminals, it can better cater to the growing needs for ground air supply system and reflect its technological superiorities, such as best ventilation effects, interior air quality improvement, energy saving and thermal comfort, etc. In structure, it adopts ultra-thin design installed inside the floor to accord with different floor height requirements. And it is widely used in both inside and outside of any ground air supply systems.

VAV-GSC是专为架空地板设计的无动力末端,采用优质、 承重大的铝合金型材制作条缝送风格栅,外形美观、与建筑装修 相话应。

VAV-GSC is a kind of unpowered terminal specially designed for raised floor system. Using the high-class and best load-bearing aluminum alloy sections to make slit supply air grille, it looks good and accords with any building decorations.

○ VAV-GSC部件 VAV-GSC Components

VAV-GSC标准配置部件包括: 壳体、风管及风阀、送风格 栅。可选配置部件包括:在压力相关控制模式下,选配调节型执 行器和温控器; 在压力无关控制模式下, 选配DDC控制器、温控 器和风量传感器。

Standard configurations for VAV-GSC include housing, air pipes, air valve and air supply grille. For options, we have different dampers and thermostats under pressure controlling model. Without pressure controlling, you can choose DDC controller, thermostat and air volume

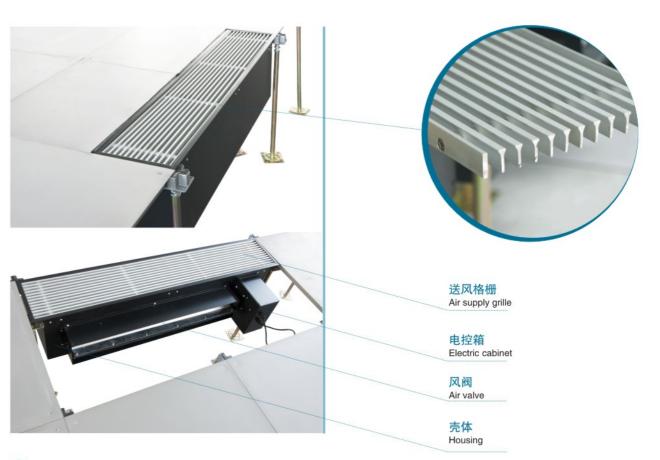




变风量末端 Variable air volume terminal







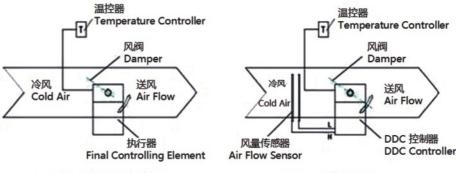
型号选择 Options

型号 Model	风口面长度 Air Grille Surface Length(mm)	风口面宽度 Air Grille Surface Width(mm)	壳体深度 Housing Depth(mm)	进风管类型 Types of the Blast Pipes
GSC-600-126	600	126	280	圆筒型 Cylinder Type
GSC-1200-126	1200	126	280	方管型Square Type

○ VAV-GSC运行模式 VAV-GSC Working Mode

标准型为压力相关型控制方式,在制冷模式下,温度传感器检测室内温度,根据室内温度和设定温度差通过执行器调节风阀开 度,改变送风量,从而达到设定室温值,末端送风量为变风量。压力无关型控制方式为可选,控制模式与普通单风道末端相同。

Standard type is for proportional pressure control mode. In cooling mode, the temperature sensor will detect the room temperature for the d-value between room temperature and setting temperature, by adjusting the air valve aperture with actuators, changing the air flow rate, to reach the setting level. Pressure-independent control mode is also optional, and the controlling mode is the same to the normal single air terminal.



压力相关型风量控制模式 Stress-related type air volume control mode

压力无关型风量控制模式 Stress-irrelated type air volume control mode

地板送风空调系统

Underfloor Air System





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地面式变风量风机动力型末端 Ground VAV Fan Powered Terminal

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○ 产品特征描述 Feature description

1、FH-VAV-GFP地面式串联风机动力型末端是一套可 移动的地板送风装置,送风口和二次回风口由两块倾斜 角度为0°、15°或者30°的地板格栅组成。

FH-VAV-GFP ground series fans terminal is a set of removable underfloor air supply device. The outlet and secondary air return consist of two grills with inclination

2、一次风由地板送风系统提供,压力无关型控制,风 机定风量运行,诱导部分室内二次气流。

The first air is supplied via underfloor air supply system, pressure independent control. The fan runs in fixed air volume to induced some inner secondary airflow.

3、采用FH-001专利高精度流量传感器,可将流量增益 系数提高到1.2~1.5倍,精确测量≥1 m/s风速。

Using High precision flow sensor with FH-001 Patent, it can increase the flow gain coefficient 1.2~1.5 times and accurately measure the air speed of

- 4、采用低噪音离心风机,可实现现场模式下3档调速。 Using centrifugal machine with low noise, it can realize 3 speed adjustments.
- 5、可选配二档加热器,500W和1000W。 500W and 1000W type heaters are available for options.
- 6、 带 DDC控 制 器 , 并 可 通 过 标 准 Lonworks、 BACnet或其它通信协议与BA系统连接。

With DDC controller, it can be connected with BA system via standard Lonworks, BACnet or other communication protocols.

7、温控面板有刻度, LED显和数显三种可选方案, 方 便业主自主选择。

There are scale, LED and digital display panels for users' options.

- 8、基本技术保证:
- 1)距送风口0.3m保证风速不大于0.5m/s。
- 2)室内温度梯度不大于1℃/m。
- 3)室内噪音保持≤dB(A)40。
- 4)通过设定最小一次风量,保证室内新风要求。

Basic technical assurance:

- 1) The air speed for where 0.3m from the air outlet is not exceeding $0.5 \,\mathrm{m/s}$.
- 2) The inner temperature gradient is not exceeding 1°C/m.
- 3) The inner noise level is not exceeding dB(A)40.
- 4) Ensure to meet new air requirement through setting the minimal air volume.

控制方案描述 Controlling Scheme Decription

1、地台式串联风机动力型末端与中央送风系统(AH U)连锁。我公司推荐,该末端通过一个气流开关直接与AH U互锁,而这个气流开关同时可以检测到一次风进口的压力

Ground series fan powered terminal is connected with the central air handling unit (AHU). We suggest to interlock the terminal with AHU directly through an air flow switch. And the switch can detect the pressure of the first air inlet.

2、当室内温度升高时,温控器将发出增加一次风流量的信 号, 当一次风增加时, 二次风将相应减少, 而风机定风量 运行; 当室内温度超过设定值或者更大, 一次风将维持在 最大设定量。

When the inner temperature goes higher, the controller will release the signal to increase the first air volume.

When the first air increases, the secondary air will decrease accordingly. And the fan will run in fixed air volume.

When inner temperature exceeds the set point, the first air will keep at the max volume.

3、当室内温度下降时,温控器将发出减少一次风流量的信

When inner temperature drops, the controller will control to decrease the

4、当室内温度达到设定值,一次风达到其最小值时,风机 便补给最大量的诱导二次风。

When the inner temperature reaches the set point and the first air reaches its minimum, the fan will begin for the secondary air supply.

5、当室内温度不断下降时,可分级启用加热盘管。

When it decreases constantly in inner temperature, it can start the heating coil in grading.



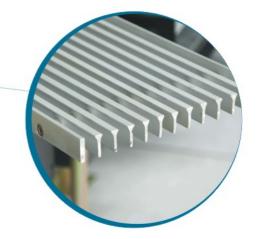
○ 设计参数表 Design Data Sheet

型号 Model	风机风量 Air Volume m/h	风机功率 Fan Power W	电源 Power V	出口余压 Outlet Pressure Pa	再热电器 Heating Power W	外形尺寸 Dimension mm
FH - VAV- GFP-500	500	25	220	5–10	250/500	600 × 600 × 250









地板送风空调系统

Underfloor Air System









地面式风机盘管 Underfloor Fan Coil Units

概述 Description

FH-UFC系列地面式风机盘管是专为架空地板系统而 设计的空气-水处理的末端机组产品,其结构非常紧凑、安 装的高度空间小、噪音低、性能优越、安装及维修比其它 产品方便。

该系列风机盘管广泛应用于宾馆、饭店、工厂、医院、 商场、展览馆和写字楼等多房间工业和民用建筑的空调场 合,以满足降温、去湿、采暖等要求。

FH-UFC series ground type fan coil is a kind of terminal unit specially designed for air and water treatment in raised floor system. It has advantages as compact structure, short finish height, low noise, superior performance, and most importantly, it is more convenient to install and maintain.

This series of fan coil is widely used in airconditioning places with multiple rooms in Industrial and residential buildings, such as hotels, restaurants, factories, hospitals, markets, exhibition halls, and office buildings, etc. Finally meet the demands for cooling, drying and heating, etc.

√ 结构 Structure

制盘管,对室内空气进行冷或热处理后送回室内,末端机 组主要由壳体、离心叶轮、多速电机、盘管(换热器)、 整体式铝合金格栅等构成。

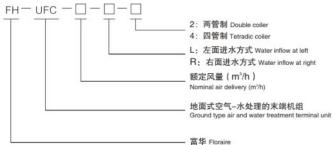
FH-UFC series of ground type fan coil sets adopt double or tetradic control coil, which cool or heat the indoor air and get the air back into indoor. The terminal unit is composed of the shell, radial impeller, multi-speed motor, coiler (heat transfer) and integral aluminum grille, etc.

机组形式定义 Unit Component

进出水接口在机组正面左侧,接线孔在右侧面,接线端子 在风机的右侧。

The water inlet and outlet are at the two front sides of the unit. Connection hole is at right and the connection terminal is at the right of fans.

② 型号规则 Types





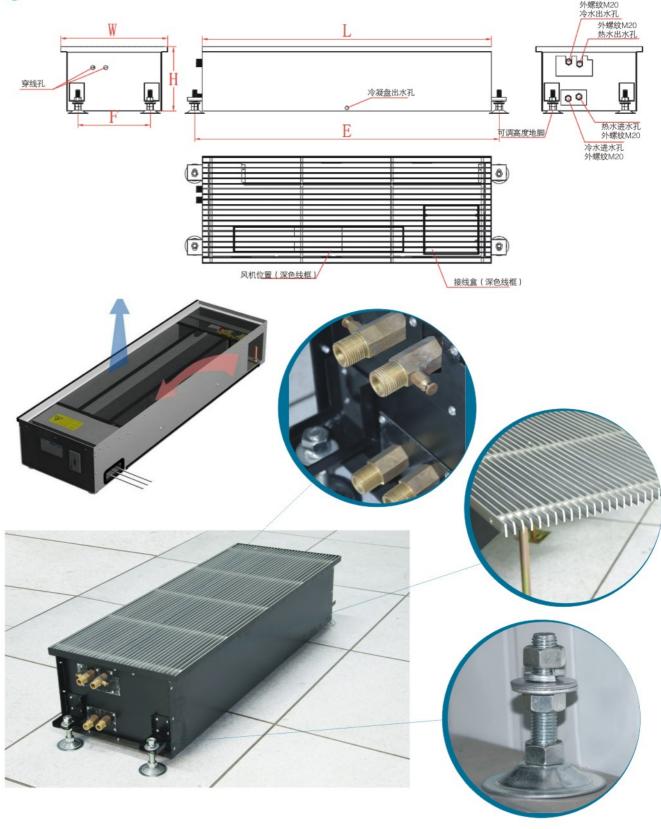
特点 Features

- ◆ 上送风、上回风式结构, 安装简便。
- ◆ 整体式承重铝合金格栅,铝合金经过氧化处理,外表美
- ◆ 换热效率高, 换热器采用无缝紫铜管串套高效铝翅片胀紧 成一体。
- ◆ 电机采用免维护轴承,配合新型离心叶轮,低噪音。
- ◆ 湿盘管运行时可选冷凝水盘。
- ◆ 可选两管制或四管制,方便灵活。既可以使用在供冷场 合,也可以为供暖设备。
- · Upper air transfer structure, easy to install.
- ◆ Integral loading aluminum grille, finished by oxidation treatment, nice in appearance and good at wear-resisting and load-bearing.
- Efficient in heat transfer, the heat exchanger is composed with cooper pipe and efficient aluminum fin in one.
- The motor uses non-maintenance bearings, with new type radial impeller, and it makes little noise.
- Condensate water tray can be chosen when wet coiler progresses.
- ◆ Double or tetradic control coil can be exchanged easily. In cooling or heating places, both are ok.

机组尺寸附表 Unit Size List

规格	机组基本尺寸 Unit basic size	地脚安装尺寸 Installation size		
Specifications	L(mm) W(mm) H(mm)	E(mm) F(mm)		
FP-500	1120 415 250	1180 300		

四管制机组尺寸 Tetradic Coiler Unit Size







₩ (€ PSB Intertek SGS

Project reference 工程案例



盐城金融城 Yancheng Financial City 地点(Place): 盐城 Yancheng 面积(Area): 145700m² 地板类型(Panel Type): OA网络地板

南京七星浚

地点(Place): 南京 Nanjing

地点(Place): 苏州 Suzhou

地板类型(Panel Type): OA网络地板

面积(Area): 15000m2

面积(Area): 15000m²



苏州尼盛广场 Suzhou Nisheng Building 地点(Place):苏州 Suzhou 面积(Area): 38000㎡ 地板类型(Panel Type): OA网络地板



深圳威盛大厦 Shenzhen Weisheng Building 地点(Place): 深圳 Shenzhen 面积(Area): 30000m² 地板类型(Panel Type): OA网络地板



南昌银行金融服务中心 Nanchang Bank Financial Services Centre 地点(Place): 南昌 Nanchang 面积(Area): 20000m² 地板类型(Panel Type): 硫酸钙网络地板



南昌欧非光科技 Nanchang Oufeiguang Technology 地点(Place): 南昌 Nanchang 面积(Area): 9500m² 地板类型(Panel Type): 铝合金地板



成都棕榈泉国际中心 Chengdu Palm Springs International Cente 地点(Place): 成都 Chengdu 面积(Area): 50000m² 地板类型(Panel Type): OA网络地板



上海展想电子 Shanghai Zhangxiang Electronic Co., Ltd 地点(Place): 上海 Shanghai 面积(Area): 40000m² 地板类型(Panel Type): OA网络地板



上海博世研发中心大楼 Bosch Shanghai Research Center 地点(Place): 上海 Shanghai 面积(Area): 27000m² 地板类型(Panel Type): OA网络地板



上海长丰大厦
Shanghai Changfeng Building
地点(Place): 上海 Shanghai
面积(Area): 22000m²
地板类型(Panel Type): OA网络地板



上海新桥商务广场 Shanghai Xinqiao Business Center 地点(Place): 上海 Shanghai 面积(Area): 22000m¹ 地板类型(Panel Type): OA网络地板



北京电信通信指挥楼 China Telecom (Beijing) Office Building 地点(Place):北京 Beijing 面积(Area): 15000m² 地板类型(Panel Type): HPL抗静电地板



南昌绿地新都会 Nanchang Greenland Center 地点(Place): 南昌 Nanchang 面积(Area): 20000m² 地板类型(Panel Type): 新型线槽网络地板



上海巴克莱银行 Barclays Bank Shanghai 地点(Place): 上海 Shanghai 面积(Area): 25000m^t 地板类型(Panel Type): OA网络地板



上海惠普工厂 HP Shanghai Factory 地点(Place): 上海 Shanghai 面积(Area): 12000m² 地板类型(Panel Type): OA网络地板



上海杜邦办公大楼 DuPont Shanghai Office Building 地点(Place): 上海 Shanghai 面积(Area): 15000m² 地板类型(Panel Type): OA网络地板



上海阿斯利康办公大楼 AstraZeneca (Shanghai) Office Buildin 地点(Place): 上海 Shanghai 面积(Area): 10000m' 地板类型(Panel Type): OA网络地板

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Project reference 工程案例



北京奥迪大厦 Beijing Audi Building 地点(Place):北京 Beijing 面积(Area): 13000m² 地板类型(Panel Type): OA网络地板



大達凱丹广场 Dalian Galleria 地点(Place): 大连 Dalian 面积(Area): 12000m² 地板类型(Panel Type): 网络地板



杭州运河天城国际 The Hangzhou Canal City International 地点(Place): 杭州 Hangzhou 面积(Area): 15000m² 地板类型(Panel Type): 新型扣槽板



北京国贸大厦 Beijing International Trade Building or Cetra Building 地点(Place): 北京 Beijing 面积(Area): 18000m² 地板类型(Panel Type): OA网络地板



大连联通 Dalian Unicom 地点(Place): 大连 Dalian 面积(Area): 8000m² 地板类型(Panel Type): 网络地板



吉林移动数据中心 Mobile Data Center in Jilin 地点(Place): 吉林 Jiling 面积(Area): 10400m² 地板类型(Panel Type): 硫酸钙地板



北京京东方运营中心 Beijing BOE operations center 地点(Place):北京 Beijing 面积(Area): 30000m² 地板类型(Panel Type): 网络地板



杭州建工大厦 Hangzhou Construction Building 地点(Place):杭州 Hangzhou 面积(Area): 10000m² 地板类型(Panel Type):网络地板



新疆绿城广场 Xingjiang Lvcheng Plaza 地点(Place): 新疆 Xingjiang 面积(Area): 50000m² 地板类型(Panel Type): 硫酸钙地板



上海默沙东制药办公大楼 Shanghai Msd Office Building 地点(Place): 上海 Shanghai 面积(Area): 20000m² 地板类型(Panel Type): OA网络地板



大连深蓝中心大楼 Dalian Deep Blue Center Building 地点(Place): 大连 Dalian 面积(Area): 40000m² 地板类型(Panel Type): 硫酸钙地板



深圳京基滨河时代 Shenzhen Kingkey Riverfront Times 地点(Place): 深圳 Shenzhen 面积(Area): 70000m² 地板类型(Panel Type): 硫酸钙地板



南昌江铃汽车 Nanchang Jiangling Automobile 地点(Place): 南昌 Nanchang 面积(Area): 30000m² 地板类型(Panel Type): 网络地板



广州东风广场 Guangzhou Dongfeng Plaza 地点(Place): 广州 Guangzhou 面积(Area): 40000m² 地板类型(Panel Type): 硫酸钙地板



上海诺华制药中心 Shanghai Novartis Pharma Center 地点(Place): 上海 Shanghai 面积(Area): 10000m² 地板类型(Panel Type): 网络地板



上海新理想大厦 Shanghai New Ideal Building 地点(Place): 上海 Shanghai 面积(Area): 20000m² 地板类型(Panel Type): 硫酸钙地板



沈阳友谊时代广场 Shenyang Friendship Times Square 地点(Place): 沈阳 Shenyang 面积(Area): 20000m² 地板类型(Panel Type): 网络地板



株洲高科 Zhuzhou Gaoke 地点(Place): 株洲 Zhuzhou 面积(Area): 15000m² 地板类型(Panel Type): 网络地板