



saipwell
斯普威尔

Products Manual

METAL ENCLOSURE

金属箱选型手册

金属箱选型手册
Metal Enclosure Products Manual

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To create products
that deliver happiness to everyone

—— 铸造充满幸福的产品 ——

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Us.

斯普威尔电气是赛普电气集团旗下的电气公司，是全球箱体领域的引领者。主要业务涉及电气机柜、IT机柜、成套电器和新能源产品等核心领域。自2006年成立以来，一直助力产品的提质升级，传递安全、智能和幸福的价值理念。

斯普威尔电气引进国外资深管理与经验丰富的专业人事，以严谨的管理、有创意的研发团队、先进的营销理念，在传统产品的基础上创造和发展了更具前沿感、设计感和良好性价比的产品。

斯普威尔电气设有3大营销公司，分别在上海宝山、广州增城、温州瓯江口；4大生产基地，分布在浙江温州、浙江乐清、浙江丽水、山东烟台；并拥有超过100家的代理和遍布全球的销售网络。

提供产品，更提供智慧。斯普威尔与多家国际化公司建立了良好的长期合作伙伴关系，并一如既往地坚持“合作发展，共同提高”的服务宗旨，以真诚的合作态度来最大程度地满足客户的需求，助力电气行业实现可持续发展的期望，确立全球市场的领先地位。

Saipwell Electricity is a subsidiary of Saip Electric Group and is a leader in the global enclosure market. Its main business involves the manufacturing of electrical and IT enclosures, assembly of whole electrical switchgear systems and development of enclosures for use in new energy solutions. Since our company's inception in 2006, we have been improving and upgrading the quality of our products as we work towards our goal of delivering happiness to our customers through their use of our safe and intelligent products.

Saipwell Electricity has been actively recruiting employees with management experience in both local and foreign companies. With this wealth of experience, creative marketing strategies and innovative R&D, we strive to create and develop more cutting-edge, cost-effective and well-designed products than their predecessors.

Saipwell Electricity has 3 authorized distributors in Baoshan (Shanghai), Zengcheng (Guangzhou), Oujiangkou (Wenzhou) and a total of 4 production sites in Wenzhou (Zhejiang), Yueqing (Zhejiang), Lishui (Zhejiang), Yantai (Shandong). We also have a global sales network of more than 100 agents supporting our customers worldwide.

We provide not just products, but also solutions to our customers. Saipwell has established good long-term partnerships with many international companies over the years. Together with our partners, we aim to achieve our mission of collective development and improvement by adopting a sincere attitude in meeting the needs of our customers; and in the process play a role in helping the Chinese electrical industry establish sustainable development and a leading position in the global electrical market.

BRAND STORY.

品牌故事

SAIPWELL ELEC.

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斯普威尔logo形似一只可爱灵动的海豚，用它的灵性与友好向世人传递着美好、快乐与幸福。

早在古希腊人们就很喜欢海豚，他们认为看到海豚在船周围的波浪中是一个好兆头。传说阿里翁曾被所乘船上的水手抢劫，被迫跳海，一只海豚被他的歌声打动，因而把他救上岸。直至今日，海豚这种大海里的精灵仍然深受全世界人民的喜爱，一直在人类文化中扮演着重要的角色。斯普威尔也有着海豚般的聪慧与友爱，在您最需要我们的时候为您提供最大的支持，用我们的灵感 and 智慧，用最靠谱的性格，成为您最真诚的伙伴。

The inspiration of our logo came from the cute-looking dolphin and its spirit of friendliness and ability to bring happiness to everyone around it.

Since ancient Greek times, dolphins are well-loved animals and it is thought to be a good sign if one sees them in the waves or waters. Legend has it that Arion was robbed by sailors in his boat and forced to jump into the sea. Moved by his singing, a dolphin rescued him to shore. Today, dolphins, the spirits of the sea, are loved by people all over the world and play an important role in human culture. Saipwell too, with a dolphin-like intelligence and friendship will provide you with the greatest support when you need it. Using our inspiration and knowledge, we hope to become your most reliable and sincere partner.

VISION.

公司愿景

SAIPWELL ELEC.

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“创领未来箱体”这一公司愿景恰恰反映了我们希望为世界带来积极的影响。斯普威尔拥有强大的研发设计能力，目前已拥有20余项箱体专利技术和著作权。最新落成的温州生产基地采用柔性钣金生产线（FMS），箱体的生产实现了自动上下料、自动切割、自动冲剪、机器人折弯、机器人焊接、交互式PU发泡和理光UV彩色打印。

专注研发生产和科技投入，这是斯普威尔扎根行业发展恒久不变的基调，未来的每一步成长，我们都愿意与您共同参与，相濡以沫，携手并进。

Creating Enclosures of the Future. This enterprise vision reflects our desire to make a positive impact on the world. Saipwell has strong R&D and design capabilities and currently has more than 20 enclosure design trademarks and technology patents. Our newly completed Wenzhou production base is fitted with an automated flexible sheet metal production line (FMS). Through automatic loading and unloading, automatic punching and cutting, robot bending, robot welding, interactive PU foaming and Ricoh UV color printing, product precision and costs efficiencies are achieved.

A focus on R&D and technological investments will continue to be cornerstones of Saipwell's development. We look forward to you participating in every step of our growth and making progress together, hand in hand.

铸造充满幸福的产品

To create products that deliver happiness to everyone





商业原则
BUSINESS
PRINCIPLE

做简单的生意 简单地做生意
To conduct business in a simple
straightforward manner.

企业精神
CORPORATE
SPIRIT

耐心 细心
Patience Dedication

Concept.

经营理念 

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happiness to everyone

人生观
HUMAN
PRINCIPLE

客户至上 员工第一
Customers are our topmost priority,
followed by our employees and stakeholders

工作观
WORKING
PRINCIPLE

快乐工作 幸福生活
To work and live happily

产品观
PRODUCT
PRINCIPLE

文化电气 / 幸福电气 / 品质电气 / 信息电气 / 便捷电气
To manufacture quality, innovative products that bring
convenience to its users

Value

价值观

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平等——人人平等

拼搏——全心以赴，付出不亚于任何人的努力

创新——思想创新、产品创新、管理创新

信任——相信别人并敢于托付

感恩——活着就要感谢

利他——积善行，思利他

Equality - Everyone is equal

Fighting Spirit - Putting in the best effort in everything

Innovation - Innovative & creative product development and management

Trust - To trust and be trusted

Gratitude - Be grateful and appreciative

Altruism - Do good deeds and be considerate of others

Honor

斯普威尔的证书

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EQUIPMENT

专业设备 +

SAIPWELL ELEC.

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机器人焊接工艺是专业机柜生产不可或缺的，斯普威尔采用的机器人焊接包括顶底框型材焊接、小箱体焊接、门铰链及接地螺柱焊接。密封胶生产线使用了德国数控发泡技术，可确保密封胶条耐180度高温不硬化，沾漆不老化。斯普威尔拥有西门子数控系统、激光机、亚威冲剪复合机、机器人折弯机、福尼斯氩弧焊机、机器人激光焊接设备、静电喷涂线、台湾群昌自动包装机、拉丝机、打磨机，这些专业的技术生产设备保障了机柜的高质量输出与快速交付，为客户的交期负责是赛普的承诺。

The robotic welding process is essential in the production of professional cabinets, and Saipwell employs robotic welding techniques that cover welding of top and bottom frame profiles, welding of small enclosure bodies, welding of door hinges, and grounding screw welding. The sealing glue production line utilizes German CNC foaming technology to ensure that the sealing glue strip remains resistant to temperatures up to 180 degrees without hardening and does not age when exposed to paint.

Saipwell is equipped with Siemens CNC systems, laser machines, Yawei punching and shearing compound machines, robot bending machines, Fronius argon arc welding machines, robot laser welding equipment, electrostatic spraying lines, Taiwan Qunchang automatic packaging machines, wire drawing machines, polishing machines, and other specialized technical production equipment. These professional tools guarantee high-quality output and swift delivery of cabinets. Saipwell is committed to fulfilling its promise of being accountable for customer delivery schedules.



亚威柔性钣金生产线（FMS）



亚威激光切割机
(西门子数控+IPG发生器)



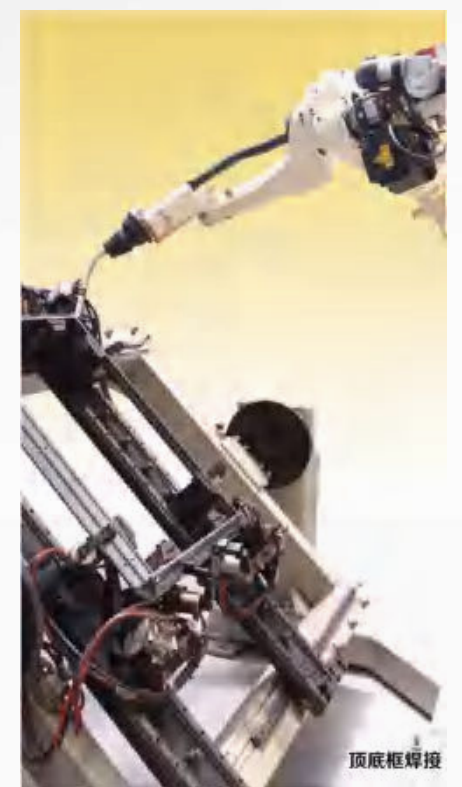
亚威机器人焊接



螺柱焊接



密封胶设备



顶底框焊接

INDUSTRY ENCLOSURES

工业机柜系列

前门后背板工业机柜

前门后门工业机柜



SAIP ELECT.

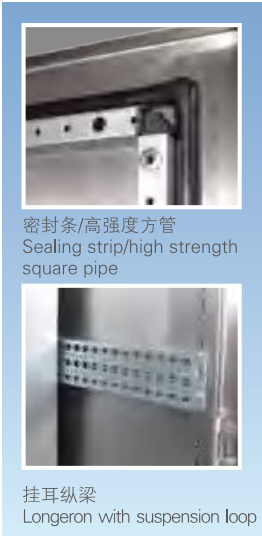
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- 表面处理：纳米薄膜技术+阴极电泳技术+表面喷粉工艺
- 框架结构：9折型材框架，静态承重达到1000公斤
16折型材框架，静态承重达到1500公斤
- 防护等级：IP55、IK08
- 开门方向：可随时变换门的开启方向，实现上下左右全面并柜
- 可选配置：冷轧钢板、不锈钢
- Surface Treatment: Nano-film technology + Cathodic electrophoretic coating technology + Powder coating process
- Frame Structure: 9-fold profile frame with a static load capacity of 1000 kg
16-fold profile frame with a static load capacity of 1500 kg
- Protection Rating: IP55, IK08
- Flexible Door Opening Direction: The door opening direction can be adjusted at any time, allowing for full cabinet integration in all directions.
- Optional Configurations: Cold-rolled steel plate, stainless steel



材料 Material	SUS304 (其它材料型号可选)SUS304 (other material types are optional)
表面处理 Surface treatment	拉丝, 安装板则为镀锌 Wire drawing, and mounting plate is galvanized
防护等级 Protection	IP55(按GB4205-1993 EN60529) IP55 (acc. to GB4205-1993 EN60529)
标准配置 Standard configuration	前门、背板、安装板、柜体、门锁、密封条 Front door, back plate, mounting plate, cabinet, door lock, sealing strip
钢板厚度 Plate thickness	框架: 五折型材1.5mm 门板: 2.0mm 背板: 1.5mm 安装板: 2.5mm Frame: 5-fold sections 1.5mm Door plate: 2.0mm Back plate: 1.5mm Mounting plate: 2.5mm



产品特点 Features of Products

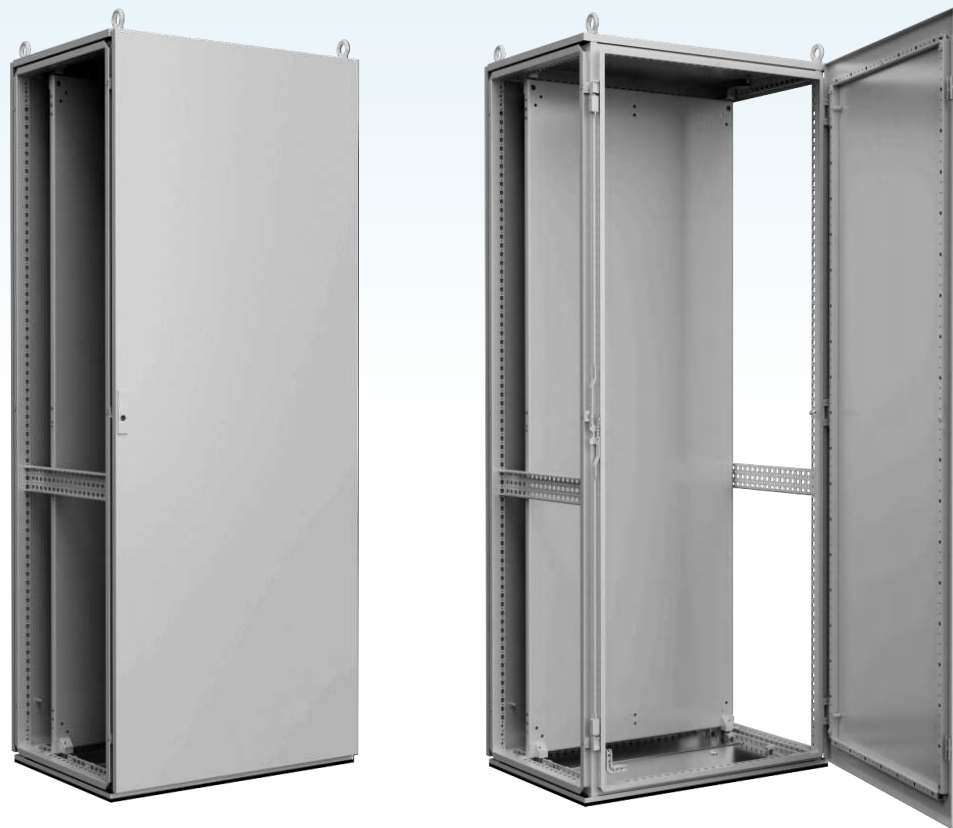
- 独立式电柜，不适宜并柜使用
 - 门板离地很高，约25mm，确保开门灵活顺畅
 - 独特的五折型材整体焊接而成的主体框架不但确保柜体的高强度而且确保柜体的防护等级达到IP56
 - 特殊的门板方管加强系统可以用螺丝固定在门板上，便于拆卸
 - 框架上密布的25mm 间距模数孔确保安装的灵活性、通用性
 - 镀锌安装板可以利用塑料滑块通过导轨从正面推入柜内，且两边有U型折边使安装板更牢固和更便于搬运
 - 专业的不锈钢岔道锁、不锈钢承重吊环以及各种功能性的附件彰显柜体豪华品质
- Stand-alone electric cabinet, unsuitable for combination
 - Ground clearance of door plate is sufficient, about 25mm, ensuring flexibility and smoothness of door opening.
 - IP56The main body frame specially fabricated by five-fold section through whole welding ensures not only high strength but also the Protection grade of IP56.
 - Special door plate square pipe reinforcement system can be fixed on the door plate with screws, easy for dismantlement.
 - Module holes densely distributed at 25mm spacing on the frame guarantee flexibility and universality of installation
 - The mounting plate can be pushed into the cabinet from the front through guide rail by making use of plastic sliders. U-shape folded edges at the two sides facilitate fastening and handling of the mounting plate.
 - Professional stainless steel turnoff lock, stainless steel bearing suspension loops and other accessories having various functions bring out luxury character of cabinet body.

BKD系列订货规格表

BKD series order specification table

*可定制非标产品
Nonstandard products are customizable

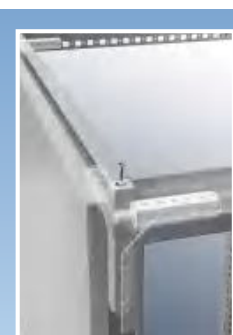
序号 No.	订货号(BKD) Order number (BKD)	宽 Width	高 Height	深 Depth
1	BKD60164010S	600	1600	400
2	BKD60165010S	600	1600	500
3	BKD60184010S	600	1800	400
4	BKD60185010S	600	1800	500
5	BKD60205010S	600	2000	500
6	BKD80165010S	800	1600	500
7	BKD80184010S	800	1800	400
8	BKD80185010S	800	1800	500
9	BKD80205010S	800	2000	500
10	BKD80206010S	800	2000	600
11	BKD10184011S	1000	1800	400
12	BKD12165011S	1200	1600	500
13	BKD12184011S	1200	1800	400
14	BKD12205011S	1200	2000	500



材料 Material	冷轧板 (其他材料可选) Cold rolled plate (other material are optional)
表面处理 Surface treatment	喷塑、小桔纹、RAL7035 Powder-coated in textured RAL 7035
防护等级 Protection	IP55(按GB4205-1993 EN60529) IP55 (acc. to GB4205-1993 EN60529)
标准配置 Standard configuration	柜体框架、门、安装板、后背板、顶、底 (侧板和底座另选) Frame, front door, mounting plate, rear panel, roof plate, gland plates (Side Wall and Base optional)
钢板厚度 Plate thickness	框架: 九折型材1.5mm 门板: 2.0mm 背板、侧板: 1.5mm 安装板: 2.5mm Frame: 1.5mm Door: 2.0mm Mounting plate: 2.5mm Others: 1.5mm



平板包装，节约仓储空间和运输成本70%
Flat-packing can save 70% delivery costs



创新的拼装结构，牢固、易安装
Unique knockdown structure - stable and easy to install



兼容PS和TS并柜系统的标准技术
Alternative enclosure of PS and TS baying system

产品特点 Features of Products

- 模块化设计的电柜，可以并联使用
- 独特的拼装结构（也可以选择焊接整装出货），既保证了电柜的尺寸精度和承重性能，又成倍地节约了仓储和运输的空间和成本
- 顶板、侧板和后背板可以拆除，易于工作
- 门板离地高度达到25mm，确保开门灵活顺畅
- 可拆卸的门机板加强筋，方便灵活
- 框架结构有符合国际惯例的25mm间距的模数孔，通用性强安装方便灵活
- 滑入式结构的安装板，方便操作和搬运

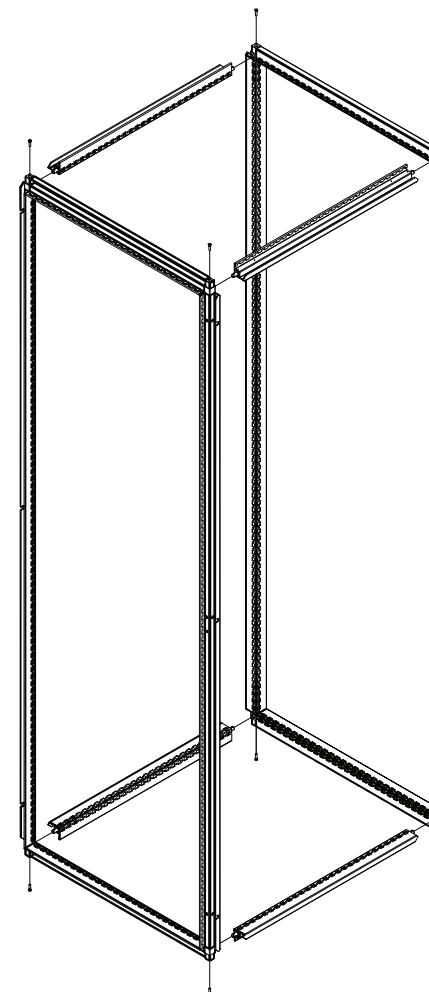
框架安装

Frame mounting

安装工具

M5梅花批头、手电钻

将四根纵梁如图方向插入前后框架，使用梅花槽沉头三角锁紧螺钉M5×20对孔固定。

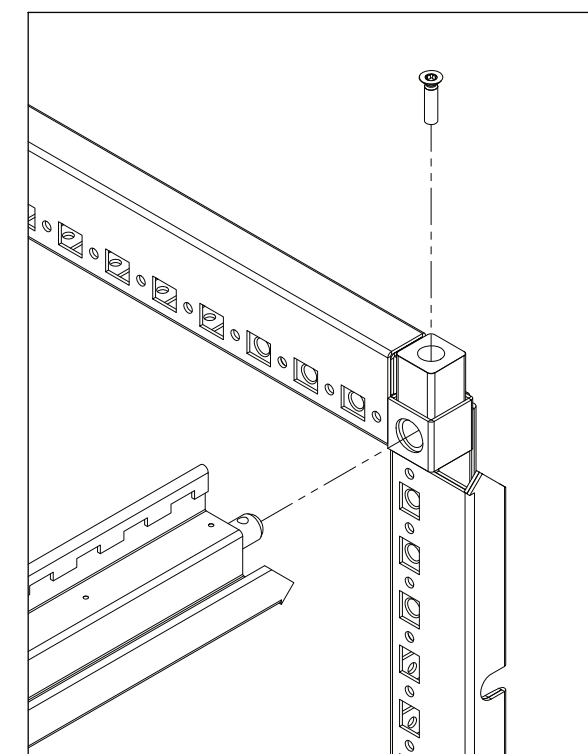


- Module industrial enclosure, bayable to left and right without limitation
- The unique knockdown structure reduce about 70% storage space and delivery cost by flat packing (Option: Welded assembly shipment)
- Every enclosure, accessible from all sides, give easy and comforte to the operators
- The distance between the down edge of the door and the floor is 25 mm
- The door can be open and closed smoothly at any conditor
- Movable door frame with holes on 25 mm pitch pattern can reinforce the door and give more possibilities for different application
- After installation, mounting plate can be slided in easily

Installation tool

1. M5 Torx screwdriver bit and hand drill
2. Insert the four longitudinal beams into the front and rear frames in the orientation shown in the diagram, and secure them through the aligned holes using M5×20 countersunk Torx triangular locking screws.

项次 Item number	描述 Description	数量 Quantity
1	梅花槽沉头三角锁紧螺钉M5×20	8个
1	M5×20 Multi-tooth Head taping screw	8 pcs





KP系列订货规格表

List of specification of KP enclosures

*可定制非标产品
Nonstandard products are customizable

序号 No.	类别 Category	订货号 Order No.	宽 Width (mm)	高 Height (mm)	深 Depth (mm)	供货范围 Supply Includes
1	整柜散装 Complete Enclosure (Flat Packing)	KP601850005	600	1800	500	包括：前后框2个，框架深度梁4根， 单开门1扇，后板1块，顶板1块， 运输吊环4个，三段式底板1套，安装板1块。 Includes: 2 front/rear frames, 4 depth beams, 1 single door, 1 rear wall, 1 roof, 4 eye-bolt, 1 bottom, 1 mounting plate. RAL 7035
2		KP601860005	600	1800	600	
3		KP602060005	600	2000	600	
4		KP602080005	600	2000	800	
5		KP601840005	600	1800	400	
6		KP801850005	800	1800	500	
7		KP801860005	800	1800	600	
8		KP801880005	800	1800	800	
9		KP802050005	800	2000	500	
10		KP802060005	800	2000	600	
11		KP802080005	800	2000	800	
12		KP802260005	800	2200	600	
13		KP802280005	800	2200	800	
14		KP102060015	1000	2000	600	
15		KP121860015	1200	1800	600	包括：前后框2个，框架深度梁4根， 双开门1扇，后板1块，顶板1块， 运输吊环4个，三段式底板1套，安装板1块。 Includes: 2 front/rear frames, 4 depth beams, 1 double door, 1 rear wall, 1 roof, 4 eye-bolt, 1 bottom, 1 mounting plate. RAL 7035
16		KP122050015	1200	2000	500	
17		KP122060015	1200	2000	600	
18		KP122080015	1200	2000	800	
19		KP122260015	1200	2200	600	
20	整柜整装 Complete Enclosure (Full Assembled)	KP601850105	600	1800	500	包括：箱体框架1套， 单开门1扇，后板1块，顶板1块， 运输吊环4个，三段式底板1套，安装板1块。 Includes: 1 Enclosure frame, 1 single door, 1 rear wall, 1 roof, 4 eye-bolt, 1 bottom, 1 mounting plate. RAL 7035
21		KP601860105	600	1800	600	
22		KP602060105	600	2000	600	
23		KP602080105	600	2000	800	
24		KP601840105	600	1800	400	
25		KP801850105	800	1800	500	
26		KP801860105	800	1800	600	
27		KP801880105	800	1800	800	
28		KP802050105	800	2000	500	
29		KP802060105	800	2000	600	
30		KP802080105	800	2000	800	
31		KP802260105	800	2200	600	
32		KP802280105	800	2200	800	
33		KP102060115	1000	2000	600	
34		KP121860115	1200	1800	600	包括：箱体框架1套， 双开门1扇，后板1块，顶板1块， 运输吊环4个，三段式底板1套，安装板1块。 Includes: 1 Enclosure frame, 1 double door, 1 rear wall, 1 roof, 4 eye-bolt, 1 bottom, 1 mounting plate. RAL 7035
35		KP122050115	1200	2000	500	
36		KP122060115	1200	2000	600	
37		KP122080115	1200	2000	800	
38		KP122260115	1200	2200	600	
39	侧板 Side Wall	KPSW1840005	SW	1800	400	包括：侧板2块，安装附件A 1套(侧板固定件 12个，ST6.3*18 螺钉12颗)。 Includes: 2 side walls, 1 set of A-type fixture accessories (12 fixtures, 12 ST6.3x18 Phillip-head Screws).
40		KPSW1850005	SW	1800	500	
41		KPSW1860005	SW	1800	600	
42		KPSW1880005	SW	1800	800	
43		KPSW2050005	SW	2000	500	
44		KPSW2060005	SW	2000	600	
45		KPSW2080005	SW	2000	800	
46		KPSW2260005	SW	2200	600	
47	底座前后 Base / Plinth For Front and Rear	KPSW2280005	SW	2200	800	包括：底座角件 4个，前后护板2块， 安装附件1套。RAL9005 Includes: 4 corner feet, 2 front/rear plates, 1 set of fixture accessories. RAL9005
48		KP6010BF00J	600	100	BF	
49		KP8010BF00J	800	100	BF	
50		KP1010BF00J	1000	100	BF	
51		KP1210BF00J	1200	100	BF	
52		KP6020BF00J	600	200	BF	
53		KP8020BF00J	800	200	BF	
54		KP1020BF00J	1000	200	BF	
55	底座侧板 Base / Plinth trim for side	KP1220BF00J	1200	200	BF	包括：侧面护板2块，安装附件1套。RAL9005 Includes: 2 left/right plates, 1 set of fixture accessaries. RAL9005
56		KPBL104000J	BL	100	400	
57		KPBL105000J	BL	100	500	
58		KPBL106000J	BL	100	600	
59		KPBL108000J	BL	100	800	
60		KPBL204000J	BL	200	400	
61		KPBL205000J	BL	200	500	
62		KPBL206000J	BL	200	600	
63		KPBL208000J	BL	200	800	



KP系列订货规格表

List of specification of KP enclosures

*可定制非标产品
Nonstandard products are customizable

序号 No.	类别 Category	订货号 Order No.	宽 Width (mm)	高 Height (mm)	深 Depth (mm)	供货范围 Supply Includes
64	前后框 Front/Rear frame	KP6018FF005	600	1800	FF	包括：前后框架2个 Includes: 2 frames
65		KP6020FF005	600	2000	FF	
66		KP8018FF005	800	1800	FF	
67		KP8020FF005	800	2000	FF	
68		KP8022FF005	800	2200	FF	
69		KP1020FF005	1000	2000	FF	
70		KP1218FF005	1200	1800	FF	
71		KP1220FF005	1200	2000	FF	
72	框架深度梁 Depth beam	KP1222FF005	1200	2200	FF	包括：框架深度梁4根， M5*20螺丝8颗。 Includes: 4 beams and 8 pieces of M5X20 screw.
73		KPFD40005	FD	FD	400	
74		KPFD50005	FD	FD	500	
75		KPFD60005	FD	FD	600	
76	门 Door	KPFD80005	FD	FD	800	包括：小型平面锁1把， 铰链3个， 锁杆1对， 锁挡 块2个， 锁舌1片。 Includes: 1 small falt lock, 3 hing, 1 pair of lock rod, 2 lock hock, 1 lock plate.
77		KP6018DS005	600	1800	DS	
78		KP6020DS005	600	2000	DS	
79		KP8018DS005	800	1800	DS	
80		KP8020DS005	800	2000	DS	
81		KP8022DS005	800	2200	DS	
82		KP1020DS005	1000	2000	DS	
83		KP1218DD015	1200	1800	DD	
84		KP1220DD015	1200	2000	DD	
85		KP1222DD015	1200	2200	DD	
86	后板 Rear Wall	KP6018RW005	600	1800	RW	包括：后板1块， 安装附件C 1套(背板固定件6个， M6*10内六角螺丝6颗， M6*16螺丝6颗)。 Includes: 1 rear wall, 1 set of C-type fixture accessories (6 Real Plate Fixtures, 6 M6x10 Allen- Head Screws, 6 M6x16 Phillip-head Screws).
87		KP6020RW005	600	2000	RW	
88		KP8018RW005	800	1800	RW	
89		KP8020RW005	800	2000	RW	
90		KP8022RW005	800	2200	RW	
91		KP1020RW005	1000	2000	RW	
92		KP1218RW005	1200	1800	RW	
93		KP1220RW005	1200	2000	RW	
94	安装板 Mounting Plate	KP1222RW005	1200	2200	RW	包括：后板1块， 安装附件D 1套(背板固定件8个， M6*10内六角螺丝8颗， M6*16螺丝8颗)。 Includes: 1 rear wall, 1 set of fixture accessories (8 Real Plate Fixtures, 8 M6x10 Allen-Head Screws, 8 M6x16 Phillip-head Screws).
95		KP6018MP000	600	1800	MP	
96		KP6020MP000	600	2000	MP	
97		KP8018MP000	800	1800	MP	
98		KP8020MP000	800	2000	MP	
99		KP8022MP000	800	2200	MP	
100		KP1020MP000	1000	2000	MP	
101		KP1218MP000	1200	1800	MP	
102		KP1220MP000	1200	2000	MP	
103		KP1222MP000	1200	2200	MP	
104	顶板 Roof	KP60RF40005	600	RF	400	包括：顶板1块， 运输吊环4个， 安装附件G 1套 (吊环垫片 4个) Includes: 1 roof, 4 eye-bolt, 1 set G-type of fixture accessories(4 rubber ring).
105		KP60RF50005	600	RF	500	
106		KP60RF60005	600	RF	600	
107		KP60RF80005	600	RF	800	
108		KP80RF50005	800	RF	500	
109		KP80RF60005	800	RF	600	
110		KP80RF80005	800	RF	800	
111		KP10RF60005	1000	RF	600	
112		KP12RF50005	1200	RF	500	
113		KP12RF60005	1200	RF	600	
114	三段式底板 Bottom	KP12RF80005	1200	RF	800	包括：底板框架1个， 进线板3块， M8 螺丝4颗。 Includes: 1 bottom frame, 1 set of gland plate, 4 pieces of M8 screw.
115		KP60BT40005	600	BT	400	
116		KP60BT50005	600	BT	500	
117		KP60BT60005	600	BT	600	
118		KP60BT80005	600	BT	800	
119		KP80BT50005	800	BT	500	
120		KP80BT60005	800	BT	600	
121		KP80BT80005	800	BT	800	
122		KP10BT60005	1000	BT	600	
123		KP12BT50005	1200	BT	500	
124		KP12BT60005	1200	BT	600	
125		KP12BT80005	1200	BT	800	



材料 Material	冷轧钢板 Cold-roll steel sheet
表面处理 Surface treatment	机柜磷化底涂处理，外部为粉末涂层，颜色可分RAL7032和RAL7035两种织纹,安装板则为镀锌 Cabinet is applied with etch primer and covered with powder coating on the outer side. Two color textures, RAL7032 and RAL7035, are available. The mounting plate is galvanized.
防护等级 Protection	IP54(按GB4205–1993 EN60529) IP54 (acc. to GB4205–1993 EN60529)
标准配置 Standard configuration	前门、背板、安装板、柜体、密封条、门锁、侧板(可选) Front door, back plate, mounting plate, cabinet body, sealing strip, door lock and side plate (optional)
钢板厚度 Plate thickness	框架：十六折型材1.5mm 门板：2.0mm 背板、侧板：1.5mm 安装板：2.5mm Frame: TS profile1.5mm Door plate: 2.0mm Back plate and side plate: 1.5mm Mounting plate: 2.5mm



柜体的垂直剖面采用了十六折型材，不仅提供了两层安装平面而且将安装空间利用率提高了15%
The 16-fold profile of the vertical sections is the key to an intelligent two-level concept, which not only provides a second mounting level as standard, but also offers up to 15% more installation space in the enclosure.



通过框架和所有面板之间进行导电连接，机柜装配完成后，盖板、侧板、后板、顶盖将自动实现电势平衡。
Potential equalisation for the gland plates, side panels, rear panel and roof is achieved automatically when the enclosure is assembled. That guarantees a conductive contact between the frame and all panel parts.



门铰链无需任何机械改装即可切换到另一侧
The door hinge can be switched to the other side with no mechanical modification.



产品特点 Features of Products

- 由于完全对称的框架截面，使用附件时具有完全的灵活性，宽度和深度的附件相同
 - 四面都可以并柜
 - 门铰链可以轻松互换到另外的一侧，无需再加工。
 - 通过所有外壳面板和法兰盘组件实现自动电位均衡
 - 具有高达1500kg的高承载能力
 - 安装板能简单快速安装. 固定滑块可以在侧框内自由安装和拆卸。
- Full flexibility with the use of accessories, thanks to a fully symmetrical frame section. With identical accessories for the width and depth
 - Bayable on all sides
 - Door hinge is easily swapped to the opposite side without machining
 - Automatic potential equalisation via the assembly components with all enclosure panels and gland plates
 - Enclosure has a high load-bearing capacity of up to 1500 kg
 - Simple, fast assembly of the mounting plate. Slide rails may be removed and installed in the side frame section

KT系列常规订货规格表

LIST OF CONVENTIONAL SPECIFICATIONS OF KT ENCLOSURES

序号 No.	类别 Category	订货号 Order No.	宽 Width (mm)	高 Height(mm)	深 Depth(mm)	描述 Description
1	整柜 Complete Enclosure	KT601840105	600	1800	400	包括：带有门的箱体架1套，3mm双齿锁芯凸缘锁 1把，安装板 1块，底板 1套，后壁 1块，顶板 1块，4 个运输吊环，2条冲孔轨 Includes: 1set Enclosure frame with Door, 1pcs 3 mm double-bit lock, 1 pcs Mounting plate, 1set Gland plates, 1pcs Rear panel, 1pcs Roof plate, 4pcs eyebolts, 2pcs punched rails, RAL 7035
2		KT601850105	600	1800	500	
3		KT601860105	600	1800	600	
4		KT602040105	600	2000	400	
5		KT602050105	600	2000	500	
6		KT602060105	600	2000	600	
7		KT602080105	600	2000	800	
8		KT602260105	600	2200	600	
9		KT801840105	800	1800	400	
10		KT801850105	800	1800	500	
11		KT801860105	800	1800	600	
12		KT802040105	800	2000	400	
13		KT802050105	800	2000	500	
14		KT802060105	800	2000	600	
15		KT802080105	800	2000	800	
16		KT802260105	800	2200	600	
17		KT101840115	1000	1800	400	包括：带有双开门的箱体架1套，3mm双齿锁芯凸缘锁 1把，安装板 1块，底板 1套，后壁 1块，顶板 1块，4 个运输吊环，2条冲孔轨 Includes: 1set Enclosure frame with Double Door, 1pcs 3 mm double-bit lock, 1 pcs Mounting plate, 1set Gland plates, 1pcs Rear panel, 1pcs Roof plate, 4pcs eyebolts, 2pcs punched rails, RAL 7035
18		KT102050115	1000	2000	500	
19		KT102060115	1000	2000	600	
20		KT121840115	1200	1800	400	
21		KT121850115	1200	1800	500	
22		KT121860115	1200	1800	600	
23		KT122040115	1200	2000	400	
24		KT122050115	1200	2000	500	
25		KT122060115	1200	2000	600	
26		KT122080115	1200	2000	800	
27		KT122260115	1200	2200	600	
28	侧板 Side Wall	KTSW1840005	SW	1800	400	包括：侧板2块，安装附件A 1套(侧板固定件12个，ST6.3*18螺钉12颗)。 Includes: 2 side walls, 1 set of A-type fixture accessories (12 fixtures, 12 ST6.3x18 Phillip-head Screws).
29		KTSW1850005	SW	1800	500	
30		KTSW1860005	SW	1800	600	
31		KTSW1880005	SW	1800	800	
32		KTSW2040005	SW	2000	400	
33		KTSW2050005	SW	2000	500	
34		KTSW2060005	SW	2000	600	
35		KTSW2080005	SW	2000	800	
36		KTSW2260005	SW	2200	600	

KT系列尺寸规格表
KT series dimension table

规格尺寸 Dimension			宽度 Width									高度 Height							深度 Depth							安装板 Mounting Plate	
宽 Width	高 Height	深 Depth	B1	B2	B3	B4	B5	B6	B7	B8	B9	H1	H2	H3	H4	H5	H6	H7	T1	T2	T3	T4	T5	T6	T7	F	G
600	1800	400	597	592	512	568	475	455	475	535	440	1800	1777.5	1712	1797	1735	1750	1630	405	275	312	368	240	126.5-356.5	335	1696	499
600	1800	500	597	592	512	568	475	455	475	535	440	1800	1777.5	1712	1797	1735	1750	1630	505	375	412	468	340	126.5-456.5	435	1696	499
600	1800	600	597	592	512	568	475	455	475	535	440	1800	1777.5	1712	1797	1735	1750	1630	605	475	512	568	440	126.5-556.5	535	1696	499
600	2000	400	597	592	512	568	475	455	475	535	440	2000	1977.5	1912	1997	1935	1850	1830	405	275	312	368	240	126.5-356.5	335	1896	499
600	2000	500	597	592	512	568	475	455	475	535	440	2000	1977.5	1912	1997	1935	1850	1830	505	375	412	468	340	126.5-456.5	435	1896	499
600	2000	600	597	592	512	568	475	455	475	535	440	2000	1977.5	1912	1997	1935	1850	1830	605	475	512	568	440	126.5-556.5	535	1896	499
600	2000	800	597	592	512	568	475	455	475	535	440	2000	1977.5	1912	1997	1935	1850	1830	805	675	712	768	640	126.5-756.6	735	1896	499
600	2200	600	597	592	512	568	475	455	475	535	440	2200	2177.5	2112	2197	2135	2050	2030	605	475	512	568	440	126.5-556.5	535	2096	499
800	1800	400	797	792	712	768	675	655	675	735	640	1800	1777.5	1712	1797	1735	1750	1630	405	275	312	368	240	126.5-356.5	335	1696	699
800	1800	500	797	792	712	768	675	655	675	735	640	1800	1777.5	1712	1797	1735	1750	1630	505	375	412	468	340	126.5-456.5	435	1696	699
800	1800	600	797	792	712	768	675	655	675	735	640	1800	1777.5	1712	1797	1735	1750	1630	605	475	512	568	440	126.5-556.5	535	1696	699
800	2000	400	797	792	712	768	675	655	675	735	640	2000	1977.5	1912	1997	1935	1850	1830	405	275	312	368	240	126.5-356.5	335	1896	699
800	2000	500	797	792	712	768	675	655	675	735	640	2000	1977.5	1912	1997	1935	1850	1830	505	375	412	468	340	126.5-456.5	435	1896	699
800	2000	600	797	792	712	768	675	655	675	735	640	2000	1977.5	1912	1997	1935	1850	1830	605	475	512	568	440	126.5-556.5	535	1896	699
800	2000	800	797	792	712	768	675	655	675	735	640	2000	1977.5	1912	1997	1935	1850	1830	805	675	712	768	640	126.5-756.6	735	1896	699
800	2200	600	797	792	712	768	675	655	675	735	640	2200	2177.5	2112	2197	2135	2050	2030	605	475	512	568	440	126.5-556.5	535	2096	699
1000	1800	400	997	492	912	968	875	355	375	935	400	1800	1777.5	1712	1797	1735	1750	1630	405	275	312	368	240	126.5-356.5	335	1896	899
1000	2000	500	997	492	912	968	875	355	375	935	400	2000	1977.5	1912	1997	1935	1850	1830	505	375	412	468	340	126.5-456.5	435	2096	899
1000	2000	600	997	492	912	968	875	355	375	935	400	2000	1977.5	1912	1997	1935	1850	1830	605	475	512	568	440	126.5-556.5	535	2096	899
1200	1800	400	1197	592	1112	1168	1075	455	475	1135	500	1800	1777.5	1712	1797	1735	1750	1630	405	275	312	368	240	126.5-356.5	335	1696	1099
1200	1800	500	1197	592	1112	1168	1075	455	475	1135	500	1800	1777.5	1712	1797	1735	1750	1630	505	375	412	468	340	126.5-456.5	435	1696	1099
1200	1800	600	1197	592	1112	1168	1075	455	475	1135	500	1800	1777.5	1712	1797	1735	1750	1630	605	475	512	568	440	126.5-556.5	535	1696	1099
1200	2000	400	1197	592	1112	1168	1075	455	475	1135	500	2000	1977.5	1912	1997	1935	1850	1830	405	275	312	368	240	126.5-356.5	335	1896	1099
1200	2000	500	1197	592	1112	1168	1075	455	475	1135	500	2000	1977.5	1912	1997	1935	1850	1830	505	375	412	468	340	126.5-456.5	435	1896	1099
1200	2000	600	1197	592	1112	1168	1075	455	475	1135	500	2000	1977.5	1912	1997	1935	1850	1830	605	475	512	568	440	126.5-556.5	535	1896	1099
1200	2000	800	1197	592	1112	1168	1075	455	475	1135	500	2000	1977.5	1912	1997	1935	1850	1830	805	675	712	768	640	126.5-756.6	735	1896	1099
1200	2200	600	1197	592	1112	1168	1075	455	475	1135	500	2200	2177.5	2112	2197	2135	2050	2030	605	475	512	568	440	126.5-556.5	535	2096	1099

KT系列细节图
KT series detail drawing

- 宽度（B系列）
B1 总宽不含侧板
B2 门宽
B3 框架宽度开档宽度
B4 底框宽度
B5 底框固定孔宽度
B6 门加强筋宽度开档尺寸
B7 门加强筋中心距
B8 M12固定孔宽度尺寸
B9 底框开孔宽度尺寸
- 高度（H系列）
H1 总高不含吊环
H2 门高
H3 框架高度度开档宽度
H4 后板高度
H5 上下水平型材固定孔中心距
H6 门加强筋中心距
H7 门加强筋高度开档尺寸
- 深度（T系列）
T1 总深不含锁面高度
T2 底框固定孔深度
T3 框架深度度开档宽度
T4 底框深度
T5 底框开孔深度度尺寸
T6 安装板深度到门内表面
T7 M12固定孔深度度尺寸
- 其它尺寸
F 安装板总高
G 安装板总宽
- Width (B Series):
B1 Overall width (excluding side panels)
B2 Door width
B3 Frame width / Opening width
B4 Base frame width
B5 Base frame fixing hole width
B6 Door reinforcement rib opening width
B7 Door reinforcement rib center distance
B8 M12 fixing hole width
B9 Base frame opening width
- Height (H Series):
H1 Overall height (excluding lifting lugs)
H2 Door height
H3 Frame height / Opening width
H4 Rear panel height
H5 Upper & lower horizontal profile fixing hole center distance
H6 Door reinforcement rib center distance
H7 Door reinforcement rib opening height
- Depth (T Series):
T1 Overall depth (excluding lock face height)
T2 Base frame fixing hole depth
T3 Frame depth / Opening width
T4 Base frame depth
T5 Base frame opening depth
T6 Mounting plate depth (to inner door surface)
T7 M12 fixing hole depth
- Other Dimensions:
F Mounting plate total height
G Mounting plate total width



产品特点 Features of Products

- 预装有角连接件的前后底座部件对某一所选定宽度始终是相同的。
- 根据相应的机柜深度和所希望的底座配置选取侧面护板。通过模块化方案能够在投资成本和功能方面具有特别的优势。
- 机柜上的安装可十分便捷舒适地从外部进行。底座内部空间为电缆管理的安装平面提供了多种多样的可能性。
- The base/plinth components at the front and rear, pre-configured with corner pieces, are always the same for the chosen width.
- Only the side trim panels are selected according to the enclosure depth and the required base/plinth configuration. The modular concept produces exceptional advantages in terms of cost and function.
- Mounting on the enclosure is conveniently carried out from the outside. Diverse mounting levels inside the base/plinth offers many opportunities for cable management.

底座 高度 Base/ plinth height	基本形状 Basic form	电缆导引的方案 Cable entry options				
100 mm					并柜底座的加固 Stabilisation of bayed base/plinths	
200 mm						

订货规格表 Order specifications table

序号 No.	类别 Category	订货号 Order No.	宽 Width (mm)	高 Height(mm)	深 Depth(mm)	描述 Description
1	底座前后 Base / Plinth For Front and Rear	KP6010BF00J	600	100	BF	包括：2 个底座部件，4 个封闭罩，4 颗螺钉和用于在机柜上安装的插入式螺母，RAL9005
2		KP8010BF00J	800	100	BF	
3		KP1010BF00J	1000	100	BF	
4		KP1210BF00J	1200	100	BF	
5		KP6020BF00J	600	200	BF	Includes: 2 base/plinth components, 4 cover caps, 4 screws and cage nuts M12 for mounting on the enclosure, RAL9005
6		KP8020BF00J	800	200	BF	
7		KP1020BF00J	1000	200	BF	
8		KP1220BF00J	1200	200	BF	
9	底座侧板 Base / Plinth trim for side	KPBL104000J	BL	100	400	包括：侧面护板2块，安装附件1套。RAL9005
10		KPBL105000J	BL	100	500	
11		KPBL106000J	BL	100	600	
12		KPBL108000J	BL	100	800	
13		KPBL204000J	BL	200	400	Includes: 2 left/right plates, 1 set of fixture accessories. RAL9005
14		KPBL205000J	BL	200	500	
15		KPBL206000J	BL	200	600	
16		KPBL208000J	BL	200	800	

产品 Products 配件 Accessory



KP33000100Z
外并柜六角钢
Baying kit



KP33000200Z
角并柜件
Angular baying brackets



KP33000300Z
并柜吊环
Combination angle



KT33000400Z
并柜连接件
Baying connectors



KP33000500Z
内并柜件
Baying brackets



KT33000600Z
U形并柜件
U shape baying brackets



KP33000700J
19英寸盲板, 1U
1 U Blank panel, 19"



KP33000800Z
门限位
Door stay



KP33000900Y
塑料图纸盒
Plastic wiring plan pocket

**类型 Type**

固定开放型 Fixed open type

标准尺寸 Standard Size

符合行业标准

Meet industry standards

(符合) 标准**Standard**(Comply with)

ANSI/EIA,RS-310-D,DIN41494;

PART1,DIN41494; PART7,

IEC297-2,GB/T3047.2-92standard

**尺寸 Size:**(H) 2035mm**材料 Material:**SPCC cold rolled steel;
Thickness: Entire one
is 1.2mm

SPCC冷轧钢;

厚度: 整体为1.2毫米

型号 MODEL NO

SP-501静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding**产品特点 PRODUCT FEATURE**

- 19英寸标准安装，机架高度可调；
- 易于安装、维护，结构稳定、牢固；
- 可根据需要选配各种安装方式；
- 模块化设计，易于组装、拆卸、运输；
- 电缆管理槽、悬臂架、壁挂式机柜等。
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂

- 19 inch standard installation, adjustable rack height;
- Easy to fix and maintain, stable and strong structure;
- Various optional installation according to requirements;
- Modular design, easily assemble and disassemble for delivery;
- Cable management slot, cantilever shelf, wall-mount cabinets etc.
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying

尺寸精确，安装简单
Precise size and simple
installation底部坚固，备件安装
Solid bottom, Spare parts
installation

350mm



570mm



100mm

型号 Model	容量 (U) Capacity (U)	底座深度 (毫米) Base Depth(mm)	安装结构宽 (毫米) Mounting Profile Width(mm)	安装结构深 (毫米) Mounting Profile Depth(mm)	高度 (毫米) Height (mm)	组装体积 (立方米) Assemble volume (CBM)
SP-501-18	18	350	570	100	940	0.065
SP-501-22	22	350	570	100	1118	0.077
SP-501-27	27	350	570	100	1340	0.092
SP-501-32	32	350	570	100	1562	0.107
SP-501-37	37	350	570	100	1784	0.122
SP-501-42	42	350	570	100	2007	0.137

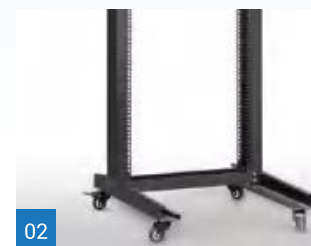
型号 MODEL NO

SP-502

静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding

产品特点 PRODUCT FEATURE

- 19英寸标准安装，机架高度可调；
 - 易于安装、维护，结构稳定、牢固；
 - 可根据需要选配各种安装方式；
 - 模块化设计，易于组装、拆卸、运输；
 - 电缆管理槽、悬臂架、壁挂式机柜等。
 - 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂
- 19 inch standard installation, adjustable rack height;
 - Easy to fix and maintain, stable and strong structure;
 - Various optional installation according to requirements;
 - Modular design, easily assemble and disassemble for delivery;
 - Cable management slot, cantilever shelf, wall-mount cabinets etc.
 - Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying

尺寸精确，安装简单
Precise size and simple
installation360度旋转脚轮，便于移动
360-degree swivel casters for
easy movemen

600mm



570mm



100mm

型号 Model	容量 (U) Capacity (U)	底座深度 (毫米) Base Depth(mm)	安装结构宽 (毫米) Mounting Profile	安装结构深 (毫米) Mounting Profile Depth(mm)	高度 (毫米) Height (mm)	组装体积 (立方米) Assemble volume (CBM)
SP-502-18	18	600	570	100	940	0.065
SP-502-22	22	600	570	100	1118	0.077
SP-502-27	27	600	570	100	1340	0.092
SP-502-32	32	600	570	100	1562	0.107
SP-502-37	37	600	570	100	1784	0.122
SP-502-42	42	600	570	100	2007	0.137

类型 Type

滑开型 Sliding open type

标准尺寸 Standard Size

符合行业标准

Meet industry standards

(符合) 标准

Standard(Comply with)

ANSI/EIA,RS-310-D,DIN41497;PART
1,DIN41494; PART7,IEC297-2,GB/
T3047.2-92standard

尺寸 (宽X深X高)

Size:(W ×D×H)
600mm×600mm×2035mm

材料 Material:

SPCC cold rolled steel;
Thickness: Entire one is
1.2mm
SPCC冷轧钢;
厚度: 整体为1.2毫米

型号 MODEL NO

SP-503

静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding

类型 Type

双滑开型 Double sliding open type

标准尺寸 Standard Size

符合行业标准
Meet industry standards

(符合) 标准

Standard(Comply with)

ANSI/EIA,RS-310-D,DIN41497;PART
1,DIN41494; PART7,IEC297-2,GB/
T3047.2-92standard

尺寸 Size:(H) 2035mm



材料 Material:

SPCC cold rolled steel;
Thickness: Entire one is
1.2mm
SPCC冷轧钢;
厚度: 整体为1.2毫米

产品特点 PRODUCT FEATURE

- 19英寸标准安装，机架高度可调；
- 易于安装、维护，结构稳定、牢固；
- 可根据需要选配各种安装方式；
- 模块化设计，易于组装、拆卸、运输；
- 电缆管理槽、悬臂架、壁挂式机柜等。
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂

- 19 inch standard installation, adjustable rack height;
- Easy to fix and maintain, stable and strong structure;
- Various optional installation according to requirements;
- Modular design, easily assemble and disassemble for delivery;
- Cable management slot, cantilever shelf, wall-mount cabinets etc.
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying

01
双层结构，多种方式显示
Double-layer structure, Display
diversity02
360度旋转脚轮，便于移动
360-degree swivel casters for
easy movement

600mm



570mm



100mm

型号 Model	容量 (U) Capacity (U)	底座深度 (毫米) Base Depth(mm)	安装结构宽 (毫米) Mounting Profile	安装结构深 (毫米) Mounting Profile Depth(mm)	高度 (毫米) Height (mm)	组装体积 (立方米) Assemble volume (CBM)
SP-503-18	18	600	570	100	940	0.130
SP-503-22	22	600	570	100	1118	0.153
SP-503-27	27	600	570	100	1340	0.184
SP-503-32	32	600	570	100	1562	0.214
SP-503-37	37	600	570	100	1784	0.244
SP-503-42	42	600	570	100	2007	0.274

型号 MODEL NO
SP-601静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding

类型 Type

连接方式 Connection type

标准尺寸 Standard Size

符合行业标准 Meet industry standards

Standard(Comply with)

(符合) 标准

ANSI/EIA,RS-310-D,DIN41497;PART
1,DIN41494; PART7,IEC297-2,GB/
T3047.2-92standard

材料 Material:

SPCC high quality cold-rolled steel
SPCC优质冷轧钢

应用 Application:

Installing server interchanger etc.
安装服务器交换机等

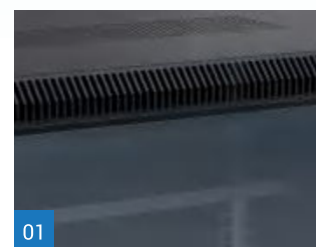
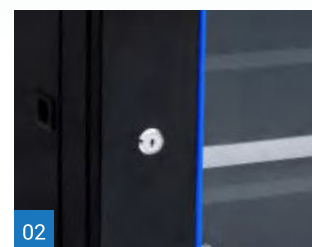
产品特点 PRODUCT FEATURE

- 120毫米风扇，可选；
- 可拆卸侧面板，侧锁，可选；
- 安装方便；
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂

- 可调脚和载重脚轮，可选；
- 焊接框架，结构可靠；
- 前门转角超过180度；
- 顶盖和底板上开有孔，用于电缆进入；
- SPCC冷轧钢；可选厚度：1.0毫米和1.2毫米

- 120mm fan optional;
- Removable side panels, sides locks optional;
- Easy mounting installation;
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying

- Adjustable feet and heavy castors are optional;
- Welded frame, reliable structure;
- Turning angle of front door is over 180 degrees;
- Knock out hole for entering cable on both of top cover and bottom panel;
- SPCC cold rolled steel;Thickness: 1.0mm,1.2mm optional

顶部通风孔
Top ventilation holes小圆锁，可选
Small round lock is optional可拆卸侧面门，使用灵活
Removable side door, flexible use顶部通风孔
Fan ventilation holes

MK机柜说明 MK Cabinets Specification

型号 Model	容量 (U) Capacity (U)	宽 (毫米) Width(mm)	深 (毫米) Depth(mm)	高度 (毫米) Height(mm)	组装体积(立方米) Assemble volume(CBM)
SP-601-6404	4	600	450	252	0.068
SP-601-6406	6			352	0.095
SP-601-6409	9			502	0.136
SP-601-6412	12			642	0.173
SP-601-6415	15			782	0.211
SP-601-6604	4	600	600	252	0.091
SP-601-6606	6			352	0.127
SP-601-6609	9			502	0.181
SP-601-6612	12			642	0.231
SP-601-6615	15			782	0.282

型号 MODEL NO

SP-602

静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding

类型 Type

按压方式 Knock down type

标准尺寸 Standard Size

符合行业标准 Meet industry standards

Standard(Comply with)

(符合) 标准

ANSI/EIA,RS-310-D,DIN41497;PART
1,DIN41494; PART7,IEC297-2,GB/
T3047.2-92standard

材料 Material:

SPCC high quality cold-rolled steel
SPCC优质冷轧钢

应用 Application:

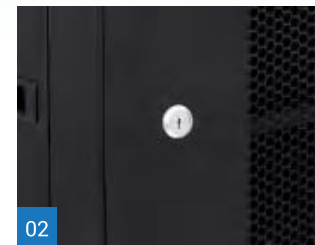
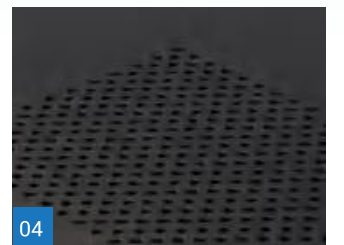
Installing server interchanger etc.
安装服务器交换机等

产品特点 PRODUCT FEATURE

- 120毫米风扇，可选；
- 节省一半的运输和储存成本；
- 安装方便；
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂

- 可拆卸结构，扁平包装，包装体积减少达70%；
- 前门转角超过180度；
- 顶盖和底板上敲孔，用于电缆进入；
- SPCC冷轧钢；可选厚度：1.0毫米和1.2毫米

- 120mm fan optional;
- Save half cost of shipping and storage;
- Easy mounting installation;
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying
- Knock down structure, flat pack, reduce package volume up to 70%;
- Turning angle of front door is over 180 degrees;
- Knock out hole for entering cable on both of top cover and bottom panel;
- SPCC cold rolled steel;Thickness: 1.0mm,1.2mm optional

01
顶部通风孔
Top ventilation holes02
小圆锁，可选
Small round lock is optional03
可拆卸侧面门，使用灵活
Removable side door, flexible use04
顶部通风孔
Fan ventilation holes

MK机柜说明 MK Cabinets Specification

型号 Model	容量 (U) Capacity (U)	宽 (毫米) Width(mm)	深 (毫米) Depth(mm)	高度 (毫米) Height(mm)	组装体积(立方米) Assemble volume(CBM)
SP-602-6404	4	600	450	252	0.068
SP-602-6406	6			352	0.095
SP-602-6409	9			502	0.136
SP-602-6412	12			642	0.173
SP-602-6415	15			782	0.211
SP-602-6604	4	600	600	252	0.091
SP-602-6606	6			352	0.127
SP-602-6609	9			502	0.181
SP-602-6612	12			642	0.231
SP-602-6615	15			782	0.282

型号 MODEL NO
SP-603静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding**类型 Type**

双节式 Double section type

标准尺寸 Standard Size

符合行业标准 Meet industry standards

Standard(Comply with)**(符合) 标准**ANSI/EIA,RS-310-D,DIN41497;PART
1,DIN41494; PART7,IEC297-2,GB/
T3047.2-92standard**材料 Material:**SPCC high quality cold-rolled steel
SPCC优质冷轧钢**应用 Application:**Installing server interchanger etc.
安装服务器交换机等**产品特点 PRODUCT FEATURE**

- 标准19英寸宽度，适用标准IT产品安装；
- 深度可调节，调节范围23英寸~40英寸。适合多场景环境使用；
- 配件可拆卸，结构简单，安装方便；
- 配套可以选配标准19英寸宽度的1U托盘和2U托盘；
- 表面静电喷塑黑色工艺，美观耐用，防腐蚀防锈；
- 可落地安装使用，也可墙壁安装使用，落地承重（静载）可达500磅，壁挂承重可达200磅；
- 主要配件折弯焊接工艺，自攻丝组装，结构可靠；
- SPCC冷轧钢材质，配件1.0毫米，主竖梁厚度1.5毫米，牢固耐用
- Standard 19-inch width for IT product installation;
- Adjustable depth from 23 to 40 inches for various environments;
- Removable accessories for easy installation;
- Optional 1U and 2U trays with 19-inch width;
- Black electrostatic powder coating for durability, corrosion, and rust resistance;
- Can be floor or wall-mounted, with a floor load capacity of 500 pounds and wall load capacity of 200 pounds;
- Main accessories are made using bending and welding processes, self-tapping screw assembly, reliable structure;
- Made of SPCC cold-rolled steel, with 1.0mm thick accessories and 1.5mm thick main beams, ensuring sturdiness and durability.



01

立柱带有刻度，精确安装
Posts with scales for precise
installation

02

尺寸精确，安装简单
Precise size and simple installation

03

360度旋转脚轮，便于移动
360-degree swivel casters for
easy movement

04

可调节层板，根据需求调节
Adjustable shelves**MK机柜说明 MK Cabinets Specification**

型号 Model	容量 (U) Capacity (U)	宽 (毫米) Width(mm)	深 (毫米) Depth(mm)	高度 (毫米) Height(mm)	组装体积(立方米) Assemble volume(CBM)
SP-603-5509	9	582	513	491	0.147
SP-603-5512	12			625	0.187
SP-603-5515	15			758	0.226
SP-603-5520	20			982	0.293

**类型 Type**

壁挂安装型 Wall installation type

标准尺寸 Standard Size符合行业标准
Meet industry standards**(符合) 标准****Standard**(Comply with)ANSI/EIA,RS-310-D,DIN41497;PART
1,DIN41494; PART7,IEC297-2,GB/
T3047.2-92standard**尺寸 (宽X深X高)****Size:**(W ×D×H)

600mm×450mm×368mm

**材料 Material:**SPCC high quality cold-rolled steel
SPCC优质冷轧钢**应用 Application:**Installing server interchanger etc.
安装服务器交换机等**型号 MODEL NO****SP-701****静荷载**
Static loading**装配便捷**
Easy assembly**无需焊接**
No need welding**产品特点 PRODUCT FEATURE**

- 120毫米风扇，可选；
- 节省一半的运输和储存成本；
- 前门转角超过180度；
- 可拆卸结构，扁平包装，包装体积减少达70%；
- 顶盖和底板上有敲孔，用于电缆进入；
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂
- 120mm fan optional;
- Easy mounting installation;
- Save half cost of shipping and storage;
- Turning angle of front door is over 180 degrees.
- Knock down structure, flat pack, reduce package volume up to 70%;
- Knock out hole for entering cable on both of top cover and bottom panel;
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying

**01**
钢化玻璃，前门带冷却孔
Tempered glass, Front door with cooling holes**02**
背板上有四个挂孔
Four hanging holes on the back panel**定制型****Custom-made model****Width**
600mm**Depth**
optional
450,600mm**IP**
20

702



703



型号 MODEL NO
SP-801静载荷
Static loading装配便捷
Easy assembly无需焊接
No need welding

产品特点 PRODUCT FEATURE

- R型安装结构，无静电；
- 可拆卸侧面板，便于维护。
- 尺寸精确，工艺精巧，设计精致；
- 钢化玻璃前门，配有倾斜通风门框和三段通风后门；
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂
- 采用插接套件，机柜连接高效、可靠；
- 可同时使用可调脚和载重脚轮；
- 顶盖和底板上的电缆入口，尺寸可调；
- 可选装底座，固定机柜，使电缆进入基础底架/使基础底架通风；
- SPCC冷轧钢；厚度：安装框架使用钢板厚度：2.0毫米，安装角处使用钢板厚度：1.2毫米，其他位置使用钢板厚度：1.2毫米
- R type Mounting profiles, free of static;
- Removable side panels to ease maintain.
- Exquisite design with precise dimension and craftsmanship;
- Toughened glass front door with obliquely vented door border and three section vented rear door;
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying
- Efficient and reliable cabinet connection by baying kit;
- Adjustable feet and heavy duty castors are available simultaneously;
- Cable entry on the top cover and bottom panel with adjustable sizes;
- Optional installation of plinth to enable cabinet fixation, under-base cable entry/ventilation;
- SPCC cold rolled steel;Thickness: mounting profile 2.0mm, mounting angle 1.2mm, others 1.2mm

01
可调安装导轨，2.0毫米厚的安装型材更稳固

Adjustable mounting rail, 2.0mm thickness mounting profile is stronger

02
优质门锁，开关方便

High-quality door lock, easy to open and close

03
底部的电缆入口面积较大

Large area of cable entry at the bottom

04
标准地线

Standard ground wire

Width
600,800mmDepth
600,800,1000mmIP
20

产品型号 Model No	前门款式 FRONT DOOR TYPE
SP-801 ■■■■ .1 ■■	钢化前门 Toughened front door
SP-801 ■■■■ .2 ■■	六角平网门 Hexagon flat mesh door
SP-801 ■■■■ .3 ■■	六角弧丝网门 Hexagonal arc mesh door
SP-801 ■■■■ .4 ■■	六角波纹网门 Hexagonal wave mesh door
SP-801 ■■■■ .5 ■■	双开网门 Double open mesh door
SP-801 ■■■■ .6 ■■	金属门 Metal door

类型 Type

网络机柜 Network cabinet

标准尺寸 Standard Size

符合行业标准 Meet industry standards

(符合) 标准

Standard(Comply with)

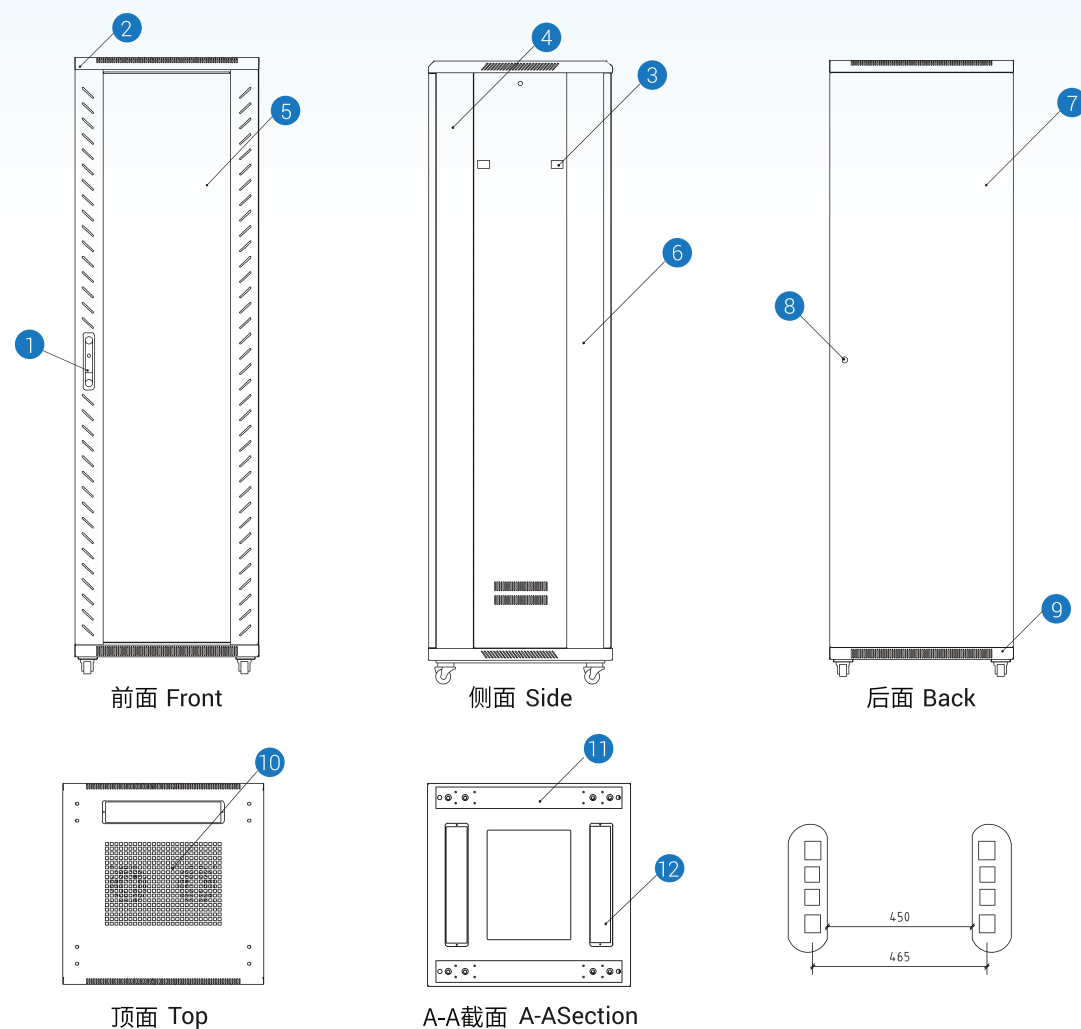
ANSI/EIA,RS-310-D,IEC297-2,

DIN41494;PART1,DIN41494;

PART7,ETSI,standard

尺寸 (宽X深X高)
Size:(W ×D×H)
600mm×600mm×2055mm材料 Material:
SPCC high quality cold-rolled steel
SPCC优质冷轧钢应用 Application
Installing server interchanger etc.
安装服务器交换机等

型号 MODEL NO

SP-801 落地式系列
Floor Standing Series主要尺寸
Main dimension

主要部件 Main Parts

1 高级月牙锁 Advanced moon-shaped lock	2 顶盖 Top cover	3 塑料锁 Plastic lock	4 框架 Frame
5 钢化玻璃前门 Toughened glass front door	6 侧板 Side panel	7 后门 Rear door	8 小圆锁 Small round lock
9 载重脚轮 Heavy duty castor	10 风扇单元 Fan unit	11 脚轮板 Castor panel	12 电缆入口 Cable entrance

MTK机柜说明 MK Cabinets Specification

型号 Model	容量 (U) Capacity (U)	基区深度 (毫米) Base Depth(mm)	安装结构宽 (毫米) Mounting Profile Width(mm)	安装结构深 (毫米) Mounting Profile Depth(mm)	高度 (毫米) Height (mm)	组装体积 (立方米) Assemble volume (CBM)
SP-801-6618	18	600	600	988	0.384	0.14
SP-801-6818			800		0.508	0.148
SP-801-6018			1000		0.632	0.165
SP-801-8818		800	800		0.664	0.179
SP-801-8018			1000		0.827	0.194
SP-801-6622	22	600	600	1166	0.446	0.16
SP-801-6822			800		0.589	0.169
SP-801-6022			1000		0.734	0.188
SP-801-8822		800	800		0.784	0.203
SP-801-8032			1000		0.972	0.218
SP-801-6627	27	600	600	1388	0.519	0.183
SP-801-6827			800		0.686	0.197
SP-801-6027			1000		0.854	0.217
SP-801-8827		800	800		0.932	0.235
SP-801-8037			1000		1.160	0.250
SP-801-6632	32	600	600	1610	0.627	0.213
SP-801-6832			800		0.829	0.224
SP-801-6032			1000		1.031	0.246
SP-801-8832		800	800		1.079	0.266
SP-801-8032			1000		1.344	0.281
SP-801-6637	37	600	600	1833	0.712	0.241
SP-801-6837			800		0.942	0.252
SP-801-6037			1000		1.172	0.276
SP-801-8837		800	800		1.227	0.300
SP-801-8037			1000		1.529	0.313
SP-801-6642	42	600	600	2055	0.788	0.269
SP-801-6842			800		1.042	0.280
SP-801-6042			1000		1.296	0.304
SP-801-8842		800	800		1.375	0.332
SP-801-8042			1000		1.712	0.344
SP-801-6647	47	600	600	2277	0.883	0.293
SP-801-6847			800		1.168	0.304
SP-801-6047			1000		1.453	0.34
SP-801-8847		800	800		1.522	0.375
SP-801-8047			1000		1.896	0.375

**类型 Type**

服务器组柜 Server cabinet

标准尺寸 Standard Size

符合行业标准 Meet industry standards

(符合) 标准

Standard(Comply with)
ANSI/EIA,RS-310-D,IEC297-2,
DIN41494;PART1,DIN41494;
PART7,ETSI,standard



尺寸 (宽X深X高)
Size:(W ×D×H)
800mm×600mm×2055mm



材料 Material:
SPCC high quality cold- rolled steel
SPCC优质冷轧钢



应用 Application:
Installing server interchanger etc.
安装服务器交换机等

型号 MODEL NO

SP-802



静荷载
Static loading



装配便捷
Easy assembly



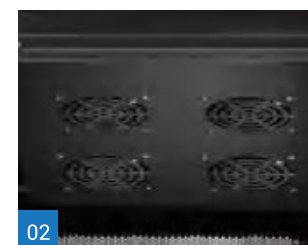
无需焊接
No need welding

产品特点 PRODUCT FEATURE

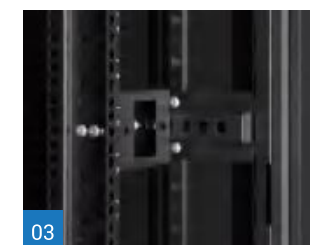
- R型安装结构，无静电；
- 可拆卸侧面板，便于维护。
- 高通风单一网格前门和双网格后门；
- 尺寸精确，工艺精巧，设计精致；
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂
- 添加方盒，达到19英寸；
- 采用插接套件，机柜连接高效、可靠；
- 可同时使用可调脚和载重脚轮；
- 顶盖和底板上的电缆入口，尺寸可调；
- 可选装底座，固定机柜，使电缆进入基础底架/使基础底架通风；
- SPCC冷轧钢；厚度：19英寸安装角轨使用钢板厚度 2.0 毫米，其他位置使用钢板厚度：1.2毫米
- R type Mounting profiles, free of static;
- Removable side panels to ease maintain.
- High ventilated single mesh front door with double mesh rear door ;
- Exquisite design with precise dimension and craftsmanship;
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying
- Add square box to reach 19inch;
- Efficient and reliable cabinet connection by baying kit;
- Adjustable feet and heavy duty castors are available simultaneously;
- Cable entry on the top cover and bottom panel with adjustable sizes;
- Optional installation of plinth to enable cabinet fixation, under-base cable entry/ventilation;
- SPCC cold rolled steel; Thickness: 19 inch mounting angle track 2.00mm, others 1.2mm



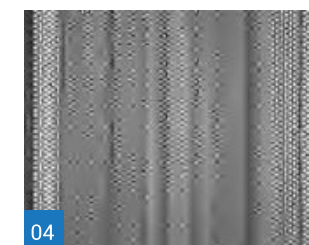
01
散热
Heat dissipation



02
顶部风扇冷却单元
Top fan cooling unit



03
标准19英尺安装距离
Standard 19 feet installation distance

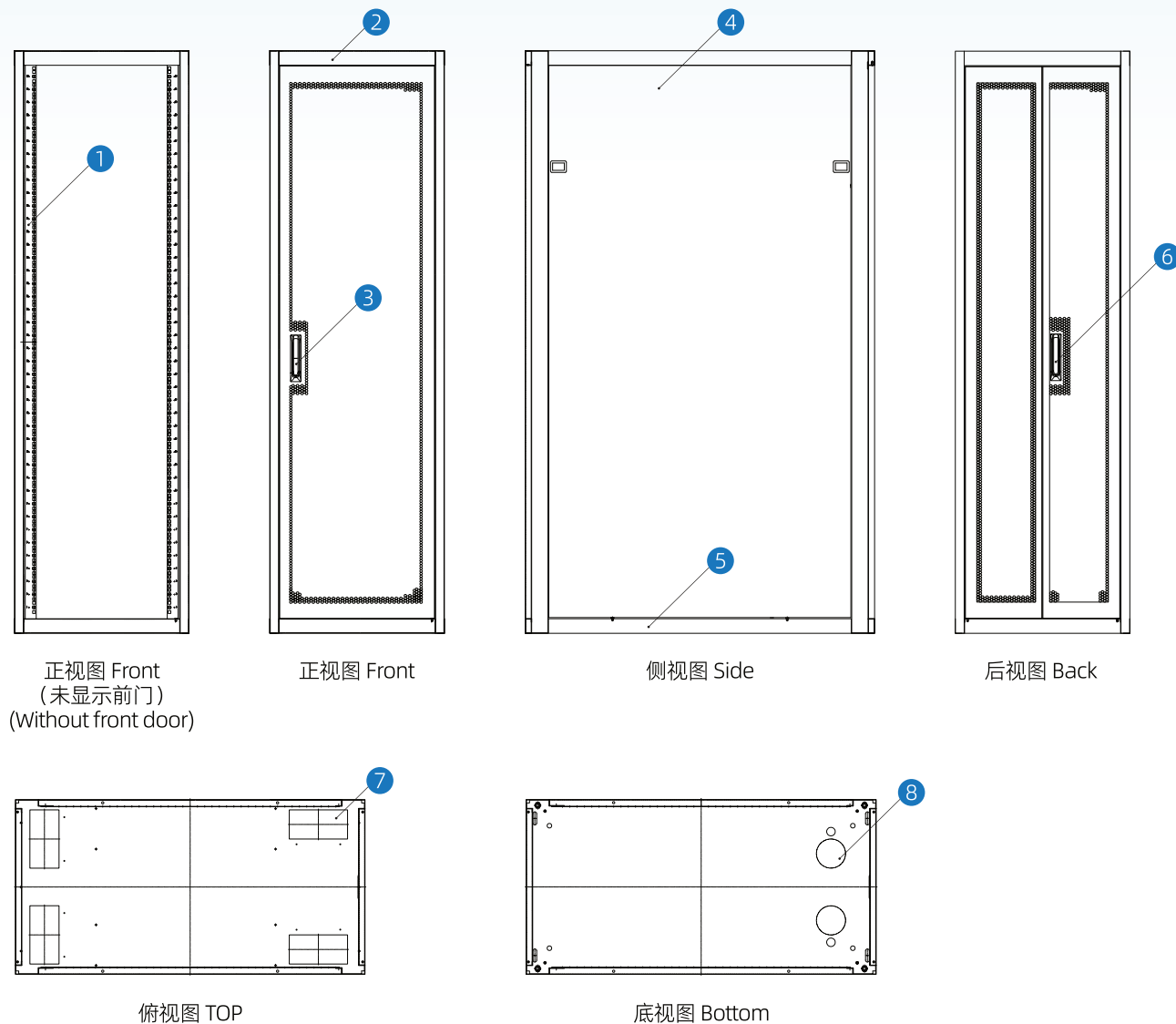


04
弧形网门，用于散热
Curved mesh door for heat dissipation

Width
350mmDepth
optional
600,800,1000mmIP
20

产品型号 Model No	前门款式 FRONT DOOR TYPE
SP-802 ■■■■ .1 ■■	钢化前门 Toughened front door
SP-802 ■■■■ .2 ■■	六角平网门 Hexagon flat mesh door
SP-802 ■■■■ .3 ■■	双开网门 Double open mesh door
SP-802 ■■■■ .4 ■■	金属门 Metal door

型号 MODEL NO

SP-802 落地式系列
Floor Standing Series主要尺寸
Main dimension

主要部件 Main Parts

19英寸角轨2对 1 Mounting angle	柜顶 2 Top cover	单点门锁 3 Single mortise locks	快拆侧板 4 Side panel
柜底 5 Bottom panel	三点双门锁 6 Three Point Mortise Locks	柜顶进线孔 (4处带毛刷) 7 Cable entrance on bottom	柜底进线孔 (2处敲落孔) 8 Cable entrance on Top

MTK机柜说明 MK Cabinets Specification

型号 Model	容量(U) Capacity (U)	柜体宽度 (毫米) Width(mm)	柜体高度 (毫米) Height (mm)	柜体深度 (毫米) Depth (mm)	19英寸预装深度 (毫米) Installation Depth(mm)
SP-802-6618	18	600	1000	600	345
SP-802-6818				800	545
SP-802-8818				800	545
SP-802-8038				1000	745
SP-802-6622	22	600	1100	600	345
SP-802-6822				800	545
SP-802-8822				800	545
SP-802-8032				1000	745
SP-802-6627	24	600	1200	600	345
SP-802-6827				800	545
SP-802-8827				800	545
SP-802-8037				1000	745
SP-802-6632	32	600	1600	600	345
SP-802-6832				800	545
SP-802-8832				800	545
SP-802-8032				1000	745
SP-802-6637	38	600	1800	600	345
SP-802-6837				800	545
SP-802-6037				1000	745
SP-802-8837		800		800	545
SP-802-8037				1000	745
SP-802-6642	42	600	2000	600	345
SP-802-6842				800	545
SP-802-6042				1000	745
SP-802-6242				1200	745
SP-802-8842		800		800	545
SP-802-8042				1000	745
SP-802-8242				1200	945
SP-802-6647				47	600
SP-802-6847	800	545			
SP-802-6047	1000	745			
SP-802-6247	800	1200	945		
SP-802-8847		800	545		
SP-802-8047		1000	745		
SP-802-8247		1200	945		

型号 MODEL NO

SP-803

静荷载
Static loading装配便捷
Easy assembly无需焊接
No need welding

类型 Type

九折叠结构 Nine folded profiled

标准尺寸 Standard Size

符合行业标准

Meet industry standards

(符合) 标准

Standard(Comply with)

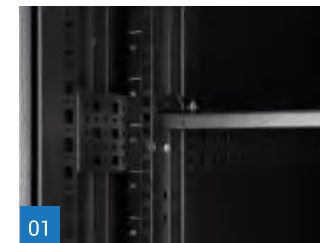
ANSI/EIA,RS-310-D,IEC297-2,

DIN41494;PART1,DIN41494;

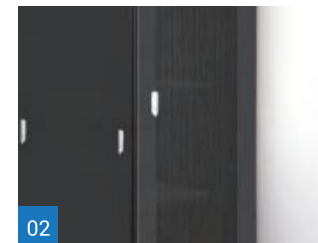
PART7,ETSI,standard

产品特点 PRODUCT FEATURE

- R型安装结构，无静电；
- 可拆卸侧面板，便于维护。
- 高通风单一网格前门和双网格后门；
- 尺寸精确，工艺精巧，设计精致；
- 去油污、酸洗、磷酸盐防锈、纯水清洗、静电喷涂
- 采用插接套件，机柜连接高效、可靠；
- 可同时使用可调脚和载重脚轮；
- 顶盖和底板上的电缆入口，尺寸可调；
- 可选装底座，固定机柜，使电缆进入基础底架/使基础底架通风；
- SPCC冷轧钢；使用9折框架结构，料厚1.5毫米；19英寸安装角轨2.0毫米；安装角处使用钢板厚度；其他位置使用钢板厚度：1.2毫米
- R type Mounting profiles, free of static;
- Removable side panels to ease maintain.
- High ventilated single mesh front door with double mesh rear door ;
- Exquisite design with precise dimension and craftsmanship;
- Degreasing, pickling, rust-proof phosphate, pure water cleaning, electrostatic spraying
- Add square box to reach 19inch;
- Efficient and reliable cabinet connection by baying kit;
- Adjustable feet and heavy duty castors are available simultaneously;
- Cable entry on the top cover and bottom panel with adjustable sizes;
- Optional installation of plinth to enable cabinet fixation, under-base cable entry/ventilation;
- SPCC cold rolled steel; Thickness: 19 inch mounting angle track 2.00mm, others 1.2mm



01

九折叠式材料
Nine-folded type material

02

使用更强大、更可靠
Stronger and more reliable use

03

底部增强，承载能力增大
Bottom reinforcement, increased load bearing

尺寸 (宽X深X高)

Size:(W ×D×H)

600mm×1000mm×2055mm



材料 Material:

SPCC high quality cold- rolled steel

SPCC优质冷轧钢



应用 Application:

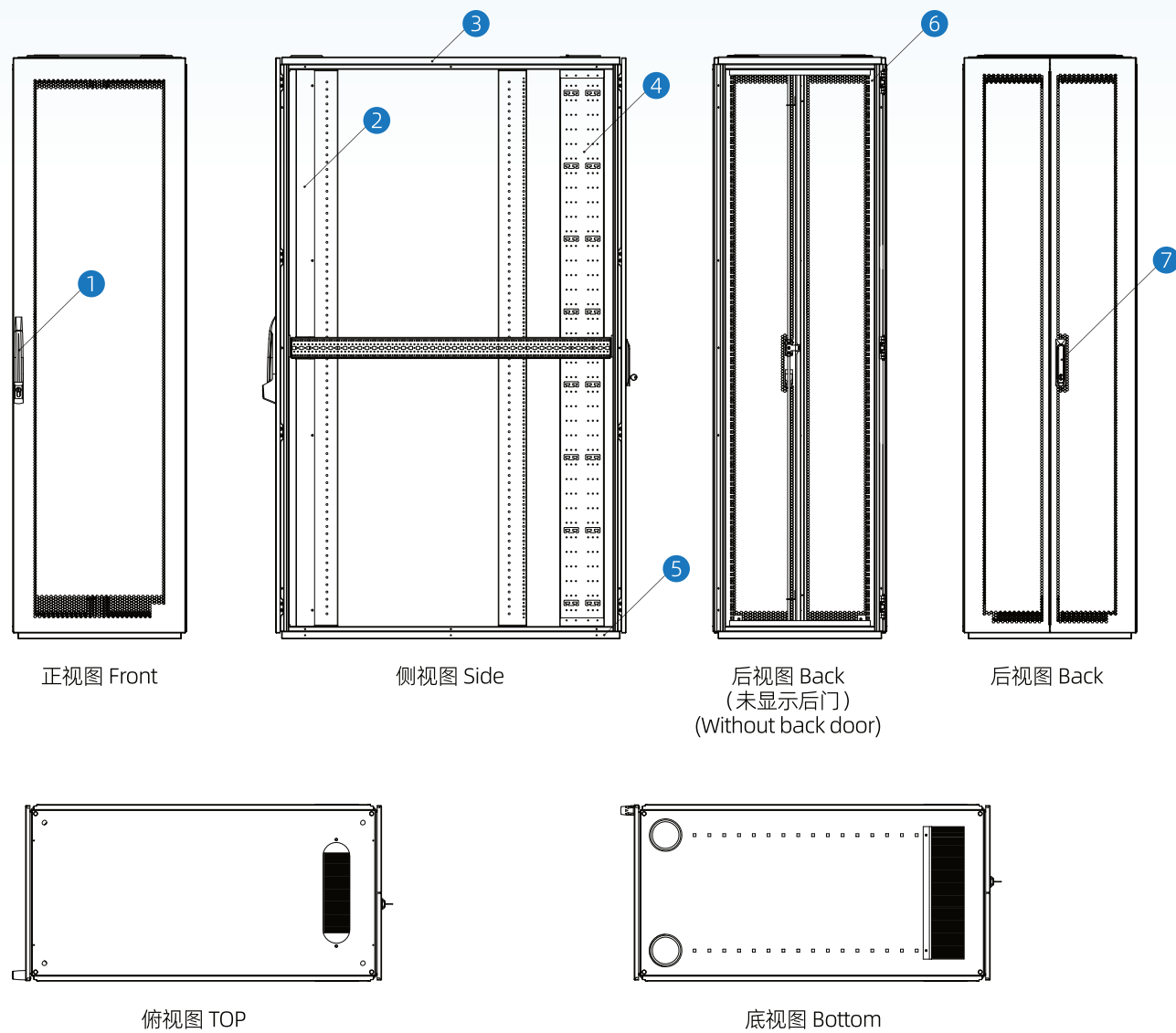
Installing server interchanger etc.

安装服务器交换机等

Width
600,800mmDepth
600,800,1000mmIP
20

产品型号 Model No	前门款式 FRONT DOOR TYPE
SP-803 ■■■■ .1 ■■	钢化前门 Toughened front door
SP-803 ■■■■ .2 ■■	六角平网门 Hexagon flat mesh door
SP-803 ■■■■ .3 ■■	双开网门 Double open mesh door
SP-803 ■■■■ .4 ■■	金属门 Metal door

型号 MODEL NO

SP-803 落地式系列
Floor Standing Series主要尺寸
Main dimension

主要部件 Main Parts

- | | | | |
|---|---|---|---|
| 1 前门锁 (豪华手柄3点)
Three Point Mortise Locks | 2 挡风板套件 (选配)
Windshield panel kit (optional) | 3 柜顶
Top cover | 4 垂直理线板 (选配)
Cable management panel (optional) |
| 5 柜底
Bottom panel | 6 19英寸角轨2对
Mounting angle | 7 后门锁 (金属手柄3点)
Three Point Mortise Locks for back door | |

MTK机柜说明 MK Cabinets Specification

型号 Model	容量(U) Capacity (U)	柜体宽度 (毫米) Width(mm)	柜体高度 (毫米) Height (mm)	柜体深度 (毫米) Depth (mm)	19英寸预装深度 (毫米) Installation Depth(mm)
SP-803-6618	18	600	1000	600	345
SP-803-6818				800	545
SP-803-8818		800		800	545
SP-803-8038				1000	745
SP-803-6622	22	600	1100	600	345
SP-803-6822				800	545
SP-803-8822		800		800	545
SP-803-8032				1000	745
SP-803-6627	24	600	1200	600	345
SP-803-6827				800	545
SP-803-8827		800		800	545
SP-803-8037				1000	745
SP-803-6632	32	600	1600	600	345
SP-803-6832				800	545
SP-803-8832		800		800	545
SP-803-8032				1000	745
SP-803-6637	38	600	1800	600	345
SP-803-6837				800	545
SP-803-6037				1000	745
SP-803-8837		800		800	545
SP-803-8037				1000	745
SP-803-6642	42	600	2000	600	345
SP-803-6842				800	545
SP-803-6042				1000	745
SP-803-6242				1200	745
SP-803-8842		800		800	545
SP-803-8042				1000	745
SP-803-8242				1200	945
SP-803-6647	47		600	2200	600
SP-803-6847		800			545
SP-803-6047		1000			745
SP-803-6247			1200		945
SP-803-8847		800	800		545
SP-803-8047			1000		745
SP-803-8247			1200		945

产品 Products

配件 Accessory



SP-U300-A
通用架
Universal shelf



SP-U300-B
通用架
Universal shelf



SP-U300-C
通用架
Universal shelf



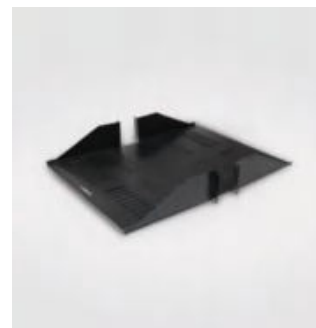
SP-F300
固定架
Fixed shelf



SP-S300
滑架
Sliding shelf



SP-SC
后滑架
Back sliding shelf



SP-CC
中间双耳架
Middle two-ear shelf



SP-T300
抽屉架
Drawer shelf



SP-M4
5孔电缆管理
5 hole cable management



SP-M2
24孔金属电缆管理
24 hole metal cable management



SP-M1
24孔电缆管理
24 hole cable management



SP-M3
12孔金属电缆管理
12 hole metal cable management



SP-B2
2U空白面板
2U Blanking panel



SP-B1
空白面板
Blank panel



SP-B3
空白面板
Blank panel



SP-L
L型托架
L type bracket



SP-T3F2-1U3002
2风扇数字化温度单元
2 Fans digital temperature Unit



SP-PJ-006
风机
FAN



SP-PJ-001
2.5英寸脚轮，带刹车
2.5inch castor with breaker



SP-PJ-002
2.5英寸脚轮，带刹车
2.5inch castor with breaker



SP-PJ-004
M6螺丝
M6 screw



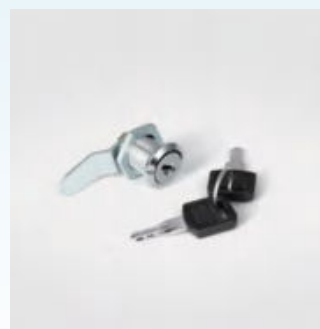
SP-PJ-004B
M6锁紧螺母
M6 cage nut



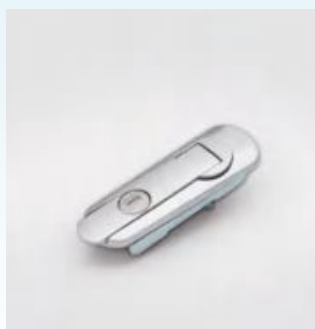
SP-PJ-003
可调脚
Adjustable feet



SP-PJ-005
下陷锁环
Sunken code loop



SP-PJ-020

小锁
Small lock

SP-PJ-017A

锁
Lock

SP-PJ-018A

锁
Lock

SP-PJ-019A

锁
Lock

定制 Custom made



SP-402



SP-403



SP-404



SP-405



SP-401



SP-406



SP-504



SP-604

PDU



SP-P1

6出口德国PDU 16A型输入和输出，带主开关，1.5M长电缆，绞盘标准安装

6-outlet Germany type PDU
16A input and output with master switch,
1.5m length cable,
19inch standard installation

SP-P2

6出口法国PDU 16A型输入和输出，带主开关，1.5米长电缆，19英寸，标准安装

6-outlet French type PDU
16A input and output with master switch,
1.5m length cable,
19inch standard installation

SP-P3

6出口英国PDU 13A型输入和输出，带主开关，1.5米长电缆，19英寸，标准安装

6-outlet UK type PDU
13A input and output with master switch,
1.5m length cable,
19inch standard installation

SP-P4

6出口美国PDU 15A型输入和输出，带主开关，1.5米长电缆，19英寸，标准安装

6-outlet America type PDU
15A input and output with master switch,
1.5m length cable,
19inch standard installation

SP-P5

6出口意大利PDU 16A型输入和输出，带主开关，1.5米长电缆，19英寸，标准安装

6-outlet Italy type PDU
16A input and output with master switch,
1.5m length cable,
19inch standard installation

SP-P6

6出口全球PDU 10A型输入和输出，带主开关，1.5米长电缆，19英寸，标准安装

6-outlet Universal PDU
10A input and output with master switch,
1.5m length cable,
19inch standard installation

AISLE HOT AND COLD AISLE CONTAINMENT SYSTEM

Aisle冷热通道系统



SAIP ELECT.

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Deliver happiness to everyone



SP

RPP COMPACT POWER DISTRIBUTION CABINET

RPP紧密配电列头柜



材料 Material:

SPCC high quality cold-rolled steel
SPCC优质冷轧钢



应用 Application:

Installing server interchanger etc.
安装服务器交换机等

信号灯及声光告警
Signal Light and Audible/Visual Alarm

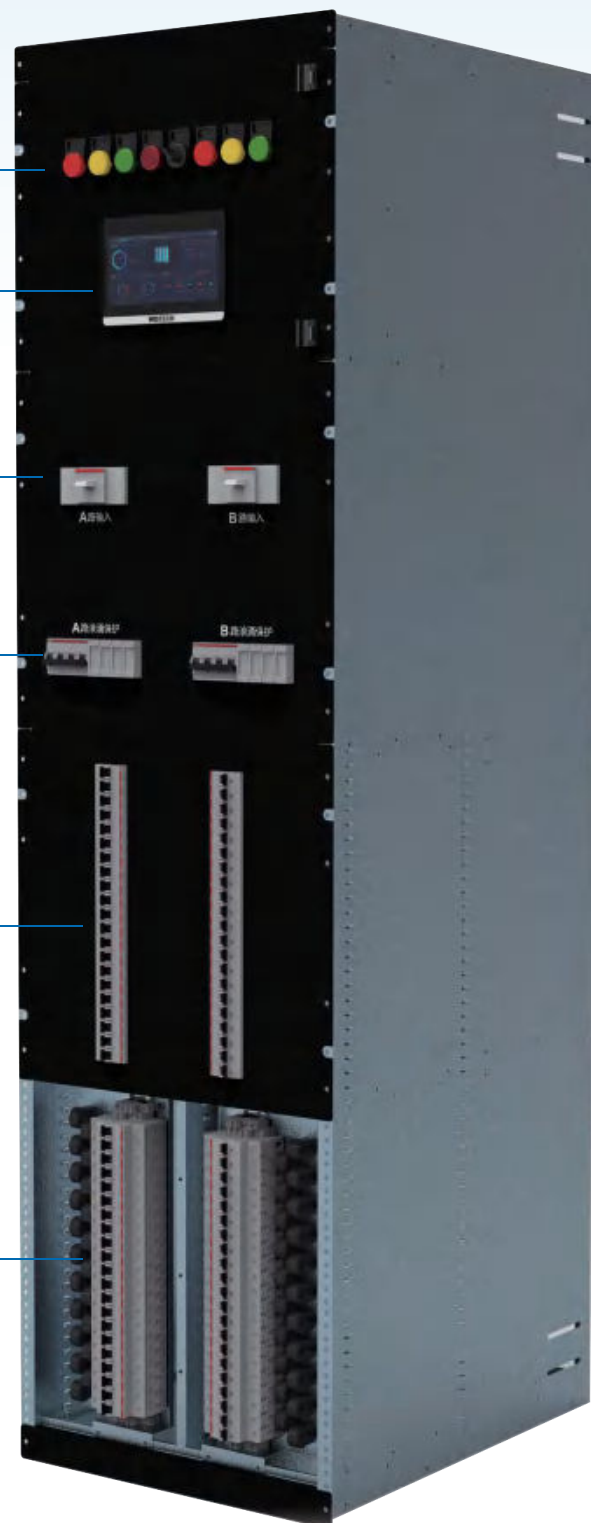
人机界面
Human-Machine Interface (HMI)

输入断路器
Input Circuit Breaker

浪涌保护器
Surge Protector

输出断路器
Output Circuit Breaker

输出检测CT
Output Monitoring CT



HMI人机界面

HMI (Human-Machine Interface)

- 采用高清电容型触摸屏，分辨率1024*600。
- 采用工业级高品质元件，高防护等级设计。
- 全面三防喷涂，针对各种环境都可轻松应对。
- Features a high-definition capacitive touchscreen with a resolution of 1024*600.
- Utilizes industrial-grade high-quality components with a high protection level design.
- Comprehensive three-proof coating ensures reliable performance in various environments.



输入断路器

Input Circuit Breaker

- 标配采用ABB TMAX系列塑壳断路器，可选施耐德或西门子塑壳断路器
- 标配辅助触头与告警触头，可检测塑壳断路器开关状态及脱扣状态
- 特殊要求可选配分励脱扣器，用于消防切非
- Standard: ABB TMAX series; Schneider or Siemens options available.
- Includes auxiliary and alarm contacts for monitoring switch and trip status.
- Optional shunt trip for fire safety systems.



输入电气参数检测

Input Electrical Parameter Monitoring

- 采用先进的DSP数字信号处理器，集成度高，运算能力强，数值运算及时准确。
- 实时监测进线回路的相电压、线电压、零地电压、相电流、电流不平衡率、电压不平衡率、有功功率、无功功率、视在功率、功率因数、系统频率、谐波、电量等电气参数。
- 同时可提供各个参数的越限告警功能及进线断路器的开关和告警状态。
- Uses advanced DSP for accurate and timely calculations.
- Monitors parameters like phase voltage, line voltage, neutral-to-ground voltage, phase current, power factors, system frequency, harmonics, and energy consumption.
- Provides over-limit alarms and monitors the status of the incoming circuit breaker.





输出电气参数检测

Output Electrical Parameter Monitoring

- 监测输出回路的电压、电流、有功功率、无功功率、视在功率、功率因数、电流谐波及电量数据。
 - 监测各个分支断路器的开关状态。
 - 可选监测分支断路器的告警状态。
- Monitors the output circuit's voltage, current, active power, reactive power, apparent power, power factor, current harmonics, and energy consumption data.
 - Monitors the switch status of each branch circuit breaker.
 - Optional monitoring of the alarm status for branch circuit breakers.



输出断路器

Output Circuit Breaker

- 标配采用ABB S200系列微型断路器，可选施耐德或西门子微型断路器
 - 可根据要求选配热插拔底座和热插拔断路器
 - 可选配底部安装辅助触头检测开关状态
- Standard configuration uses ABB S200 series miniature circuit breakers, with options for Schneider or Siemens miniature circuit breakers.
 - Hot-swappable bases and circuit breakers are available as options.
 - Optional bottom-mounted auxiliary contacts for switch status detection.



浪涌保护器

Output Electrical Parameter Monitoring

- 标配德国DEHN模块式多级浪涌保护器
 - 高通流量氧化锌压敏电阻，高放电性能
 - 采用3+1保护模式，可适用于比较恶劣的电力环境
 - “动态热脱扣” SPD检测装置，可靠性高
 - 使用模块释放按钮，更换模块更简便
- Standard configuration includes German DEHN modular multi-stage surge protectors.
 - High discharge performance with high-flow zinc oxide varistors.
 - Utilizes a 3+1 protection mode, suitable for harsh electrical environments.
 - Equipped with "dynamic thermal disconnection" SPD monitoring device for high reliability.
 - Features a module release button for easier and more convenient module replacement.



技术参数 Technical Parameters

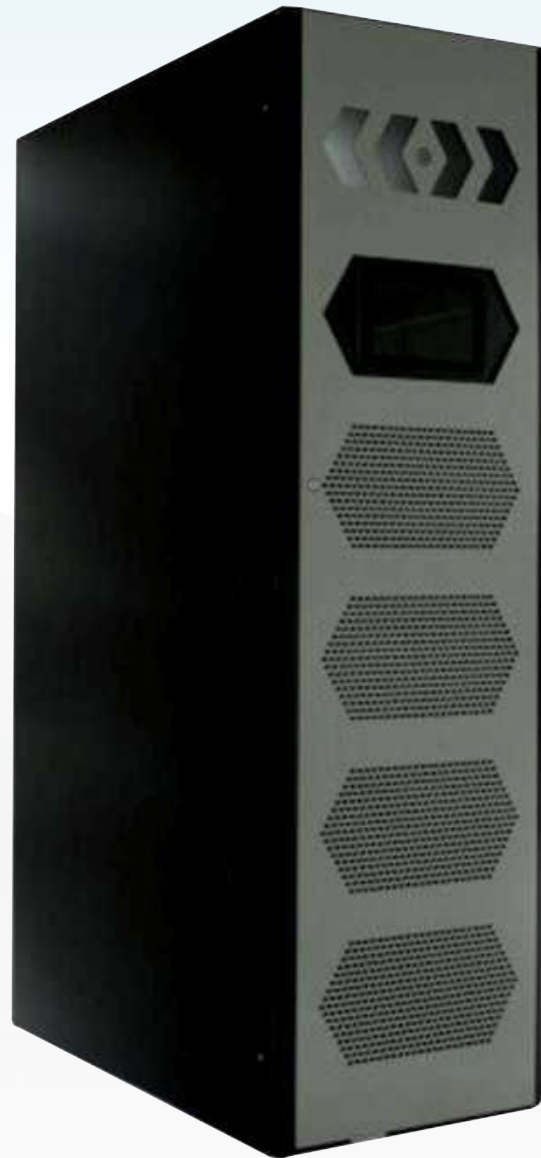
标准 Standard	通过型式试验标准 Pass type test standards	GB/T 7251.12-2013
电气参数 Electrical Parameters	额定工作电压 Rated Operating Voltage	380V
	额定绝缘电压 Rated Insulation Voltage	660V
	额定冲击耐受电压 Rated Impulse Withstand Voltage	6kV
	过电压类别 Overvoltage Category	Ⅲ
	污染等级 Pollution Degree	3
	额定频率 Rated Frequency	50HZ
	额定电流 Rated Current	32A-630A
	额定短时耐受电流 Rated Short-Time Withstand Current	15kA
	防护等级 Protection Rating	IP30
环境参数 Environmental Parameters	环境温度 Ambient Temperature	-5° C... +40° C
	相对湿度 Relative Humidity	+40℃时不超过50% RH在较低温度时允许有较高的相对湿度，例如 + 20℃时可达90% RH +40° C at no more than 50% RH, with higher relative humidity allowed at lower temperatures, such as 90% RH at +20° C.
	海拔高度 Altitude	≤2000m
	其它 Others	非多尘环境，无强烈震动和冲击的场合 Non-dusty environment, free from strong vibrations and impacts
结构特性 Structural Features	宽度（W）Width (W)	19英寸 inches （482.6mm）
	高度（H）Height (H)	40U (1778mm)
	深度（D）Depth (D)	651.2mm（推荐安装于深度大于1000mm机柜） 651.2mm (recommended for installation in cabinets with a depth greater than 1000mm)
	框架箱体材料 Frame Material	镀锌钢板SGCC Galvanized steel sheet (SGCC)
	正面面板材料 Front Panel Material	冷轧钢板SPCC Cold-rolled steel sheet (SPCC)
	外观颜色 Exterior Color	环氧粉末静电喷涂，RAL9005或RAL7035 Epoxy powder coating, RAL9005 or RAL7035

配置方案 Configuration Plan

型号Model	SP.1216.48	SP.1216.60	SP.1225.48	SP.1225.60	SP.1240.72	SP.1116.24	SP.1116.30
宽度mm Width (mm)	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches
高度mm Height (mm)	40U	40U	40U	40U	40U	40U	40U
深度mm Depth (mm)	651.2	651.2	651.2	651.2	651.2	651.2	651.2
系统类型 System Type	双路输入 Dual Input	双路输入 Dual Input	双路输入 Dual Input	双路输入 Dual Input	双路输入 Dual Input	单路输入 Single Input	单路输入 Single Input
系统容量 System Capacity	100kVA*2	100kVA*2	160kVA*2	160kVA*2	260kVA*2	100kVA*1	100kVA*1
输入规格 Input Specifications	160A/3P*2	160A/3P*2	250A/3P*2	250A/3P*2	400A/3P*2	160A/3P*1	160A/3P*1
输出规格 Output Specifications	24P*2	30P*2	24P*2	30P*2	36P*2	24P*1	30P*1
浪涌保护 Surge Protection	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard
监控系统 Monitoring System	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard
人机界面 Interface	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard
型号Model	SP.1125.24	SP.1125.30	SP.1125.48	SP.1140.30	SP.1140.48	SP.1140.60	SP.1140.72
宽度mm Width (mm)	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches	19英寸 19 inches
高度mm Height (mm)	40U	40U	40U	40U	40U	40U	40U
深度mm Depth (mm)	651.2	651.2	651.2	651.2	651.2	651.2	651.2
系统类型 System Type	单路输入 Single Input	单路输入 Single Input	单路输入 Single Input	单路输入 Single Input	单路输入 Single Input	单路输入 Single Input	单路输入 Single Input
系统容量 System Capacity	160kVA*1	160kVA*1	160kVA*1	260kVA*1	260kVA*1	260kVA*1	260kVA*1
输入规格 Input Specifications	250A/3P*1	250A/3P*1	250A/3P*1	400A/3P*1	400A/3P*1	400A/3P*1	400A/3P*1
输出规格 Output Specifications	24P*1	30P*1	48P*1	30P*1	48P*1	60P*1	72P*1
浪涌保护 Surge Protection	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard
监控系统 Monitoring System	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard
人机界面 Interface	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard	标配 Standard

1. 人机界面标配7英寸电容型触摸屏，分辨率1024*600，安装于柜体上方，可选配安装于机柜外门上。
2. 精密监控系统监控范围：输入回路及所有输出回路电气参数及开关状态。
3. 浪涌保护器为标准配置：标称放电电流为20kA，最大放电电流40kA。
4. 输出规格为微型断路器，上表数量全部按照P为单位计算，电流规格可选10-63A。
5. 输出规格为常规微型断路器，如需热插拔可换相断路器，需非标询价。

1. The Human-Machine Interface (HMI) comes standard with a 7-inch capacitive touchscreen, with a resolution of 1024*600, mounted at the top of the cabinet. It can optionally be installed on the outer door of the cabinet.
2. The precision monitoring system covers the monitoring of electrical parameters and switch status for the input circuit and all output circuits.
3. Surge protectors are standard, with a nominal discharge current of 20kA and a maximum discharge current of 40kA.
4. The output specifications use miniature circuit breakers; all quantities in the table are calculated in units of P, with current ratings available from 10A to 63A.
5. The output specifications include conventional miniature circuit breakers. For hot-swappable phase change breakers, non-standard pricing inquiries are required.



类型 Type

模块化部件 Modular Components

标准尺寸 Standard Size

符合行业标准
Meet industry standards

(符合) 标准

Standard(Comply with)

ANSI/EIA,RS-310-D,IEC297-2,
DIN41494;PART1,DIN41494;
PART7,ETSI,standard

SPAIO系列作为新一代高度集成的小型微模块数据中心解决方案，以机柜作为机房载体，充分整合UPS、空调调节、配电、防雷、消防（选配）、布线、气流抑制和智能监控等所有子系统，在机柜内部形成一个满足设备安全运行的机房环境，有助于小型机房朝机柜化、标准化方向发展。此外，该系列占地面积小，能在有限的空间之内实现1-3天内的快速部署。

The SPAIO series, as a new generation of highly integrated micro modular data center solutions, uses cabinets as the carrier for data center facilities. It fully integrates all subsystems including UPS, air conditioning, power distribution, surge protection, fire suppression (optional), cabling, airflow management, and intelligent monitoring within the cabinet. This integration creates an environment that ensures the safe operation of equipment, facilitating the development of small data centers towards cabinet-based and standardized solutions. Additionally, this series occupies a small footprint, allowing for rapid deployment within 1-3 days in limited spaces.



材料 Material:

SPCC high quality cold-rolled steel
SPCC优质冷轧钢

应用 Application:

Installing server interchanger etc.
安装服务器交换机等



应用场景 Application Scenarios

- SPAIO系列可应用在50平米以下或1负荷25kVA以下的小型机房。
- 适用于区域型、小型商办环境、边缘数据中心的I应用。
- 适用于政府、教育、医疗、大型企业的分支机构的网络间。
- 适用于电信、金融、能源、广电、零售等行业的营业网点。
- The SPAIO series is suitable for small data centers under 50 square meters or with IT loads up to 25kVA.
- It's ideal for regional, small commercial, and edge data center applications.
- Applicable for network spaces in government, education, healthcare, and large enterprise branches.
- Suitable for outlets in the telecommunications, finance, energy, broadcasting, and retail sectors.

高适应性 High Adaptability

- 模块化部件、标准化接口、工厂预组装、现场快速布署、弹性灵活、建置周期短、方便随需扩容。
- 占地面积最小0.72m²，封闭设计，环境适应能力强，可不需要装修、地板等配套工程，有效降低投入成本。
- 可以在设计、安装、运行后的任何阶段对系统做可用性等级的变化，供电系统、制冷系统等不需重新设计。
- Modular components, standardized interfaces, factory pre-assembly, rapid onsite deployment, flexibility, quick setup, and easy scalability.
- Minimal footprint of 0.72m², strong environmental adaptability, no need for additional constructions, reducing costs.
- System availability can be adjusted at any stage without needing to redesign power or cooling systems.

高效性 High Efficiency

- 封闭冷/热通道隔离设计，避免气体混流、冷量损失，大幅提高回风温度、制冷效率，降低PUE值。
- 机架式精空空调采用直流变频压缩机和无极调速EC风机，能效比≥3.1。
- 选用高频机架式UPS或机架式模块化UPS，输入功率因数≥0.99,10KVA以上最高效率≥95%。
- Enclosed cold/hot aisle design improves cooling efficiency and reduces PUE by preventing air mixing and cooling loss.
- Rack-mounted precision AC features DC variable frequency compressors and EC fans, achieving an EER of ≥3.1.
- Uses high-frequency or modular rack-mounted UPS with an input power factor of ≥0.99 and efficiencies up to 95% for units over 10KVA.

高可靠性 High Reliability

- 采用机械结构，当检测到温度过高等信息时直接打开散热系统，无需UPS供电提高供电系统可靠性，不占用UPS供电资源。
- 关键部件可按需采用N、N+1、2N或2（N+1）设计满足客户高可靠要求。
- 分布式控制提高可靠性，空调、UPS、环境、智能机柜（温湿度、照明、PDU、门磁采集）等采用分布控制系统，即便其中一个控制器故障，亦不影响其他设备信息正常显示及上传。
- Mechanical structure automatically activates cooling when high temperatures are detected, improving power system reliability without using UPS resources.
- Critical components offer designs such as N, N+1, 2N, or 2(N+1) to meet high reliability requirements.
- Distributed control enhances reliability; systems like AC, UPS, and smart cabinets use independent controls, preventing a single controller failure from affecting other systems.



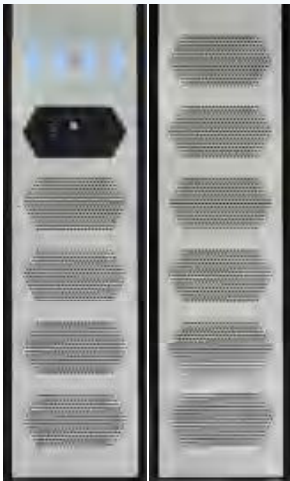
项目 Project		描述 Description	SAIO-1
整体参数 Overall Parameters		输入电源 Input Power	220Vac,50Hz,1ph+N+PE
		工作温度 Operating Temperature	5~30℃
		湿度范围 Humidity Range	10~90%
机柜系统 Cabinet System		机柜尺寸 Cabinet Dimensions	WHD=600*2000*1200
		可用空间 Usable Space	31U
散热系统 Cooling System			4.2kW机架式空调（5U） 4.2kW Rack-Mounted Air Conditioner (5U)
配电系统 Power Distribution System	UPS	容量 Capacity	3kVA
		安装方式 Installation Method	机架式安装 Rack Mount
		安装高度 Installation Height	2U
	电池 Battery		选配电池包 Optional Battery Pack
	配电盒 Distribution Box	安装方式 Installation Method	机架式安装 Rack Mount
		防雷 Lightning Protection	C级 Class C
		维修旁路 Maintenance Bypass	标配 Standard Configuration
		安装高度 Installation Height	4U
	PDU	安装方式 Installation Method	竖装 Vertical Installation
类型 Type		20*10A+4*16A	
监控系统 Monitoring System		监控采集器 Monitoring Collector	标配 Standard Configuration
		触摸屏 Touch Screen	标配 Standard Configuration
		温湿度传感器 Temperature and Humidity Sensor	标配 Standard Configuration
		烟感 Smoke Detector	标配 Standard Configuration
		水浸Water Leak Detector	标配 Standard Configuration
		门磁 Door Magnet	标配 Standard Configuration
		门状态 Door Status	标配 Standard Configuration
负载功率段Reactive Power			2.4kW



项目 Project		描述 Description	SAIO-1F
整体参数 Overall Parameters		输入电源 Input Power	220Vac,50Hz,1ph+N+PE
		工作温度 Operating Temperature	5~30℃
		湿度范围 Humidity Range	10~90%
机柜系统 Cabinet System		机柜尺寸 Cabinet Dimensions	WHD=600*2000*1200
		可用空间 Usable Space	36U
散热系统 Cooling System			顶置风扇 Top-mounted Fan
配电系统 Power Distribution System	UPS	容量 Capacity	3kVA
		安装方式 Installation Method	机架式安装 Rack Mount
		安装高度 Installation Height	2U
	电池 Battery		选配电池包 Optional Battery Pack
	配电盒 Distribution Box	安装方式 Installation Method	机架式安装 Rack Mount
		防雷 Lightning Protection	C级 Class C
		维修旁路 Maintenance Bypass	标配 Standard Configuration
		安装高度 Installation Height	4U
	PDU	安装方式 Installation Method	竖装 Vertical Installation
类型 Type		20*10A+4*16A	
监控系统 Monitoring System		监控采集器 Monitoring Collector	标配 Standard Configuration
		触摸屏 Touch Screen	标配 Standard Configuration
		温湿度传感器 Temperature and Humidity Sensor	标配 Standard Configuration
		烟感 Smoke Detector	标配 Standard Configuration
		水浸Water Leak Detector	标配 Standard Configuration
		门磁 Door Magnet	标配 Standard Configuration
		门状态 Door Status	标配 Standard Configuration
负载功率段Reactive Power			2.4kW



项目 Project		描述 Description	SAIO-2
整体参数 Overall Parameters	输入电源 Input Power		220Vac,50Hz,1ph+N+PE
	工作温度 Operating Temperature		5~30℃
	湿度范围 Humidity Range		10~90%
机柜系统 Cabinet System	机柜尺寸 Cabinet Dimensions		WHD=1200*2000*1200
	可用空间 Usable Space		28U+42U=70U
散热系统 Cooling System			8kW机架式空调 8kW Rack-Mounted Air Conditioner
配电系统 Power Distribution System	UPS	容量 Capacity	6kVA
		安装方式 Installation Method	机架式安装 Rack Mount
		安装高度 Installation Height	2U
	电池 Battery		选配电池包 Optional Battery Pack
	配电盒 Distribution Box	安装方式 Installation Method	机架式安装 Rack Mount
		防雷 Lightning Protection	C级 Class C
		维修旁路 Maintenance Bypass	标配 Standard Configuration
		安装高度 Installation Height	4U
	PDU	安装方式 Installation Method	竖装 Vertical Installation
		类型 Type	(20*10A+4*16A) *2
监控系统 Monitoring System	监控采集器 Monitoring Collector		标配 Standard Configuration
	触摸屏 Touch Screen		标配 Standard Configuration
	温湿度传感器 Temperature and Humidity Sensor		标配 Standard Configuration
	烟感 Smoke Detector		标配 Standard Configuration
	水浸Water Leak Detector		标配 Standard Configuration
	门磁 Door Magnet		标配 Standard Configuration
	门状态 Door Status		标配 Standard Configuration
负载功率段Reactive Power			4.8kW



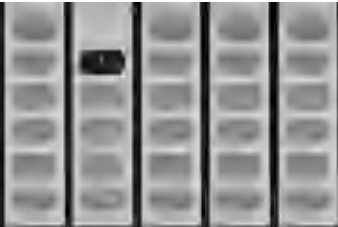
项目 Project		描述 Description	SAIO-3
整体参数 Overall Parameters	输入电源 Input Power		220Vac,50Hz,1ph+N+PE
	工作温度 Operating Temperature		5~30℃
	湿度范围 Humidity Range		10~90%
机柜系统 Cabinet System	机柜尺寸 Cabinet Dimensions		WHD=1800*2000*1200
	可用空间 Usable Space		42U+28U+42U=112U
散热系统 Cooling System			8kW机架式空调 8kW Rack-Mounted Air Conditioner
配电系统 Power Distribution System	UPS	容量 Capacity	10kVA
		安装方式 Installation Method	机架式安装 Rack Mount
		安装高度 Installation Height	2U
	电池 Battery		选配电池包 Optional Battery Pack
	配电盒 Distribution Box	安装方式 Installation Method	机架式安装 Rack Mount
		防雷 Lightning Protection	C级 Class C
		维修旁路 Maintenance Bypass	标配 Standard Configuration
		安装高度 Installation Height	4U
	PDU	安装方式 Installation Method	竖装 Vertical Installation
		类型 Type	(20*10A+4*16A)*3
监控系统 Monitoring System	监控采集器 Monitoring Collector		标配 Standard Configuration
	触摸屏 Touch Screen		标配 Standard Configuration
	温湿度传感器 Temperature and Humidity Sensor		标配 Standard Configuration
	烟感 Smoke Detector		标配 Standard Configuration
	水浸Water Leak Detector		标配 Standard Configuration
	门磁 Door Magnet		标配 Standard Configuration
	门状态 Door Status		标配 Standard Configuration
负载功率段Reactive Power			7.5kW



项目 Project		描述 Description	SAIO-4
整体参数 Overall Parameters	输入电源 Input Power		380Vac,50Hz,3ph+N+PE
	工作温度 Operating Temperature		5~30℃
	湿度范围 Humidity Range		10~90%
机柜系统 Cabinet System	机柜尺寸 Cabinet Dimensions		WHD=2400*2000*1200
	可用空间 Usable Space		140U
散热系统 Cooling System			8kW机架式空调*2 8kW Rack-Mounted Air Conditioner*2
配电系统 Power Distribution System	UPS	容量 Capacity	20kVA
		安装方式 Installation Method	机架式安装 Rack Mount
		安装高度 Installation Height	6U
	电池 Battery		选配电池包 Optional Battery Pack
	配电盒 Distribution Box	安装方式 Installation Method	机架式安装 Rack Mount
		防雷 Lightning Protection	C级 Class C
		维修旁路 Maintenance Bypass	标配 Standard Configuration
		安装高度 Installation Height	6U
	PDU	安装方式 Installation Method	竖装 Vertical Installation
		类型 Type	(20*10A+4*16A) *4
监控系统 Monitoring System	监控采集器 Monitoring Collector		标配 Standard Configuration
	触摸屏 Touch Screen		标配 Standard Configuration
	温湿度传感器 Temperature and Humidity Sensor		标配 Standard Configuration
	烟感 Smoke Detector		标配 Standard Configuration
	水浸Water Leak Detector		标配 Standard Configuration
	门磁 Door Magnet		标配 Standard Configuration
	门状态 Door Status		标配 Standard Configuration
负载功率段Reactive Power			15kW



项目 Project		描述 Description	SAIO-5
整体参数 Overall Parameters	输入电源 Input Power		380Vac,50Hz,3ph+N+PE
	工作温度 Operating Temperature		5~30℃
	湿度范围 Humidity Range		10~90%
机柜系统 Cabinet System	机柜尺寸 Cabinet Dimensions		WHD=3000*2000*1200
	可用空间 Usable Space		182U
散热系统 Cooling System			8kW机架式空调*2 8kW Rack-Mounted Air Conditioner*2
配电系统 Power Distribution System	UPS	容量 Capacity	20kVA
		安装方式 Installation Method	机架式安装 Rack Mount
		安装高度 Installation Height	6U
	电池 Battery		选配电池包 Optional Battery Pack
	配电盒 Distribution Box	安装方式 Installation Method	机架式安装 Rack Mount
		防雷 Lightning Protection	C级 Class C
		维修旁路 Maintenance Bypass	标配 Standard Configuration
		安装高度 Installation Height	6U
	PDU	安装方式 Installation Method	竖装 Vertical Installation
		类型 Type	(20*10A+4*16A)*5
监控系统 Monitoring System	监控采集器 Monitoring Collector		标配 Standard Configuration
	触摸屏 Touch Screen		标配 Standard Configuration
	温湿度传感器 Temperature and Humidity Sensor		标配 Standard Configuration
	烟感 Smoke Detector		标配 Standard Configuration
	水浸Water Leak Detector		标配 Standard Configuration
	门磁 Door Magnet		标配 Standard Configuration
	门状态 Door Status		标配 Standard Configuration
负载功率段Reactive Power			15kW



IP AND IK CLASSIFICATIONS

IP、IK 防护等级标准



First Number	防固形物	Second Number	防水	IK	防物理冲击
IP	Protection	IP	Protection	IK	Test
0	无防护 No protection		无防护 No protection		无防护 No protection
1	防护50mm直径和更大的固体外来体 protected against solid objects up to 50 mm e.g. to 50 mm e.g. hands		防护垂直落下的水滴 protected against vertically falling drops of water	-	冲击<1 焦耳 impact<1 joule
2	防护12.5mm直径和更大的固体外来体 protected against solid objects up to 12.5 mm e.g. fingers		箱体倾斜15°时，防护垂直落下的水滴 protected against direct sprays of water up to 15° from the vertical		1焦耳冲击 impact 1 joule
3	防护2.5mm直径和更大的固体外来体 protected against solid objects over 2.5mm (tools+small wires)		防护以60°角从垂直线两侧溅出的水 protected against water sprayed from all directions—limited ingress permitted		2焦耳冲击 impact 2 joule
4	防护1.0mm直径和更大的固体外来体 protected against solid objects over 1mm (tools+small wires)		防护从每个方向对准箱体的溅水 protected against water sprayed from all directions—limited ingress permitted		5焦耳冲击 impact 5 joule
5	防护灰尘 protected against dust—limited ingress permitted (no harmful deposit)		防护从每个方向对准箱体的低压喷水 protected against low pressure jets of water from all directions—limited ingress permitted		10焦耳冲击 impact 10 joule
6	灰尘封闭 totally protected against dust		防护从每个方向对准箱体的高压喷水 protected against strong jets of water e.g. for use on shipdecks—limited ingress permitted		20焦耳冲击 impact 20 joule
			防护在15cm~1m深水浸入30分钟 protected against the effects of immersion between 15 cm and 1m		
			防护长时间浸入水中 protected against long periods of immersion under pressure		

TECHNICAL INFORMATION

技术信息



材料特性一览表

LIST OF MATERIAL PROPERTIES

	弱酸 weak acid	强酸 strong acid	弱碱 Weak base	强碱 strong base	酒精 Alcohol	汽油 gasoline	苯 benzene	矿物油 mineral oil	柴油 diesel fuel	氨气 Ammonia	植物油脂 Vegetable fat	动物油脂 Animal fats	卤素、重金属、PVC、不含无硅脂 Halogen, heavy metal, PVC, non-silicone-free	阻燃等级根据VDE 0471/en 60695/ul 94 Flame retardant grade according to VDE 0471/en 60695/ul 94	最高环境温度短时间 (1小时) Highest ambient temperature for a short time (1 hour)	最高环境温度长时间 (持续) Maximum ambient temperature for a long time (continuous)
ABS—抗冲击 ABS—impact resistance	○	/	●	●	●	/	/	○	/	●	○	○	是 Yes	960℃ / V-2	+80℃	-40℃ — +70℃
PC—玻璃纤维加强 PC—glass fiber reinforced	○	/	/	/	●	●	/	●	○	/	●	●	是 Yes	960℃ / V-2	+130℃	-35℃ — +120℃
PC—透明 PC—transparent	○	/	/	/	○	○	/	●	○	/	●	●	是 Yes	850℃ / V-2	+130℃	-35℃ — +120℃
聚乙烯 Polyethylene	●	●	●	●	●	○	/	○	○	●	●	●	是 Yes	650℃ / V-2	+100℃	-40℃ — +70℃
聚丙烯 Polypropylene	●	○	●	○	●	○	○	●	○	●	●	●	是 Yes	960℃ / V-2	+120℃	-30℃ — +100℃
聚丙烯，无卤素 Polypropylene, halogen-free	●	○	●	○	●	○	○	●	○	●	●	●	是 Yes	960℃ / V-2	+120℃	-30℃ — +100℃
聚丙烯共聚物 Polypropylene copolymer	●	○	●	○	●	○	○	○	●	●	●	●	是 Yes	650℃ / HB	+120℃	-30℃ — +100℃
聚亚胺酯 Polyurethane	○	○	○	○	○	○	○	●	○	○	●	●	是 Yes	650℃ / -	+110℃	-35℃ — +80℃
铝—AL 12 Si Aluminum—AL 12 Si	●	○	●	●	○	●	/	●	●	●	○	○	是 Yes	-	+130℃	-40℃ — +100℃
聚酯，玻璃纤维加强 Polyester, glass fiber reinforced	○	/	○	/	●	●	●	●	●	●	●	●	是 Yes	960℃ / V-0	+120℃	-40℃ — +100℃
聚酰亚胺（尼龙6），玻璃纤维加强 Polyimide (nylon 6), glass fiber reinforced	●	○	●	●	●	●	○	●	●	●	○	○	是 Yes	750℃ / HB	+200℃	-30℃ — +100℃
热塑性人造橡胶 Thermoplastic elastomer	●	○	●	○	●	○	○	○	○	○	●	●	是 Yes	750℃ / HB	+110℃	-30℃ — +80℃

● 稳定 Stabilize ○ 条件性稳定 Conditionally stable / 不稳定 Unstable



材料特性一览表
LIST OF MATERIAL PROPERTIES

	PC	ABS	聚酯纤维 Polyester	铝 aluminum	AISI304不锈钢 AISI304 stainless steel	AISI316不锈钢 AISI316 stainless steel	粉末涂层钢 Powder coated steel
室外 outdoor	●●●●●	●●	●●●●●●	●●●●●	●●●●●●	●●●●●●	●●●●●
室内 indoor	●●●●●	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●●●●●●
成本 cost	●●●●	●●●●●●	●●	●●●	●	●	●●
重量 weight	●●●●●●	●●●●●●	●●	●	●	●	●
硬度 hardness	●●●	●●	●●●●	●●●●●	●●●●●●	●●●●●●	●●●●●●
抗冲击 Impact resistance	●●●●●	●●	●●●●●	●●●●●	●●●●●●	●●●●●●	●●●●●●
抗紫外线 anti-UV	●●●●●	●	●●●●●	●●●●●●	●●●●●●	●●●●●●	●●●●●●
温度范围 temperature range	●●●●●	●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
加工难易度 Processing difficulty	●●●●●●	●●●●●●	●	●	●	●	●●
绝缘性 Insulation	●●●●●●	●●●●●●	●●●●●	K/A	K/A	K/A	K/A
防火性能 Fire performance	●●●●●	●	●	●●●●●	●●●●●●	●●●●●●	●●●●●●
抗溶剂 Anti-solvent	●	●	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●
抗汽油 Gasoline resistant	●●●	●	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●
抗高压流体 Resistant to high pressure fluids	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●●●●●●	●●
抗酒精 Anti-alcohol	●●●●●	●●●	●●●●●	●●●●●●	●●●●●●	●●●●●●	●●
抗碱性 Alkaline resistance	●●	●●●●●●	●●●●●	●	●●●●●●	●●●●●●	●
抗酸性 Acid resistance	●●●	●●	●●●	●	●●●●●	●●●●●●	●

●●●●● 极好 Excellent ●●●●●/●●●● 好 good ●● 中等 medium ● 较差 Poor K/A 无法使用 Not available



聚碳酸酯（PC）Polycarbonate (PC)	
+高抗冲击强度 +High impact strength	-由于加入玻纤，达到正确的色度非常困难 -Due to the addition of glass fiber, it is very difficult to achieve the correct chromaticity
+高防护等级 +High protection level	
+重量轻 + Light weight	
+化学稳定性高 +High chemical stability	
+适用温度范围大 +Large applicable temperature range	
+燃烧后会自动熄灭 + It will automatically extinguish after burning	
+加工性好 +Good processability	
+绝缘性好 +Good insulation	
+可用于室外 + Can be used outdoors	
+可配透明盖 +Can be equipped with transparent cover	

工程塑料（ABS）Engineering Plastics (ABS)	
+价廉物美 +Cheap and good quality	-抗冲击强度能力低于PC -Impact resistance is lower than PC
+重量轻 +Light weight	-抗温度影响能力低于PC -Resistance to temperature influence is lower than PC
+化学稳定性高 + High chemical stability	-抗紫外线能力差 -Poor UV resistance
+能用常用工具加工 +Can be processed with common tools	-不适用于户外 -Not suitable for outdoor use
	-不会自动熄灭 -Won't turn off automatically

聚酯（GRP,玻纤加强的聚酯） Polyester (GRP, glass fiber reinforced polyester)	
+耐温性能好 +Good temperature resistance	-加工困难 -Difficulty in processing
+高抗冲击强度 +High impact strength	-不能回收再利用 -Can not be recycled
+防腐性强 + Strong corrosion resistance	
+与多种溶剂的化学稳定性高 +High chemical stability with various solvents	
+适用于高要求工业环境 +Suitable for demanding industrial environments	

铝（AL）Aluminum (AL)	
+比钢质轻 +Lighter than steel	-价格比热塑性材料贵 -More expensive than thermoplastic materials
+很高抗冲击强度 +Very high impact strength	
+与多种溶剂的化学稳定性高 + High chemical stability with various solvents	
+很高的抗温度性能 +Very high temperature resistance	
+很高的防腐性能 +High corrosion resistance	

涂酯钢（DC01 AM）Ester coated steel (DC01 AM)	
+很高抗冲击强度 +Very high impact strength	-易腐蚀 -Easy to corrode
+高防护等级 +High protection level	
+很高的抗温度性能 +Very high temperature resistance	
+易满足客户特殊尺寸要求定制 + Easy to meet customer's special size requirements and customization	

不锈钢（AISI 304）Stainless steel (AISI 304)	
+高抗冲击强度 +High impact strength	-比涂酯钢难以定制加工 -More difficult to custom process than ester-coated steel
+高防护等级 +High protection level	
+防腐性能强 +Strong anti-corrosion performance	
+抗紫外线能力强 +Strong UV resistance	
+可用于室外，建议遮盖防雨 +Can be used outdoors, it is recommended to cover and prevent rain	
+适用于工业环境 +Suitable for industrial environment	
+非常适用于食品加工工业 +Very suitable for the food processing industry	

防酸钢（AISI 316）Acid-proof steel (AISI 316)	
具有不锈钢（AISI 304）的所有优点，以及 Has all the advantages of stainless steel (AISI 304), as well as:	
+很高的防腐性能 +High corrosion resistance	
+非常适用于海上作业环境 +Very suitable for offshore working environment	
+非常适用于造纸业 +Very suitable for the paper industry	



Ip防护种类，EN 60529 Ip protection type, EN 60529												
1.代码 1.Code		2.代码 2.Code	防水 water proof	无防护 Without protection	防护垂直落下的水滴进入 Protection against the entry of vertically falling water droplets	防护最大喷射角度为15°的水滴进入 Protect water droplets with a maximum spray angle of 15° from entering	防护最大喷射角度为60°的水滴进入 Protect water droplets with a maximum spray angle of 60° from entering	有限度低档全方位喷射水滴，不致产生危害 Limited low-grade spraying of water droplets in all directions, without causing harm	有限度低档全方位喷射水柱溅入，不致产生危害 Limited low-grade all-round jetting water jet splashes in, which will not cause harm	有限度低档全方位高压喷射水柱溅入，不致产生危害 Limited low-grade, omni-directional high-pressure water jet splashes, which will not cause harm	防护短时间的水中浸没 Protection against short-term immersion in water	防护长时间水中浸没 Protection against prolonged immersion in water
防止用户接触危险部件 Prevent users from touching dangerous parts	对固态侵入物的防护 Protection against solid intrusions			IP X0	IP X1	IP X2	IP X3	IP X4	IP X5	IP X6	IP X7	IP X8
无任何防护 Without any protection	无任何防护 Without any protection	IP 0 X		IP 00								
防止意外被手触碰 Prevent accidental touching by hands	防止超过50mm的固态物入侵 Prevent intrusion of solid objects over 50mm	IP 1 X		IP 10	IP 11	IP 12						
防止手指触碰危险部件 Prevent fingers from touching dangerous parts	防止超过12.5mm的固态物入侵 Prevent intrusion of solid objects over 12.5mm	IP 2 X		IP 20	IP 21	IP 22	IP 23					
防止超过25mm的工具接触危险部件 Prevent tools larger than 25mm from contacting dangerous parts	防止超过2.5mm的固态物入侵 Prevent intrusion of solid objects over 2.5mm	IP 3 X		IP 30	IP 31	IP 32	IP 33	IP 34				
防止超过1.0mm的电线接触危险部件 Prevent wires exceeding 1.0mm from contacting dangerous parts	防止超过1mm的固态物入侵 Prevent intrusion of solid objects over 2.5mm	IP 4 X		IP 40	IP 41	IP 42	IP 43	IP 44				
防止超过1.0mm的电线接触危险部件 Prevent wires exceeding 1.0mm from contacting dangerous parts	防止尘埃入侵，至不产生有害沉积 Prevent the intrusion of dust, so as not to produce harmful deposits	IP 5 X		IP 50				IP 54	IP 55			
防止超过1.0mm的电线接触危险部件 Prevent wires exceeding 1.0mm from contacting dangerous parts	完全阻隔任何尘埃的进入 Completely block the entry of any dust	IP 6 X		IP 60					IP 65	IP 66	IP 67	IP 68

认证核准 Certification and approval												
	10系列	11系列		12系列		13系列		14系列	15系列	17系列	18系列	19系列
材质 Material	PC	PC	ABS	PC	ABS	PC	ABS	PC	AL	GRP	ST	ES
SGS FIMO EN 62208	■	■	■	■	■	■	■					
UL	■	■		■		■		■			■	
cUL	■	■		■		■		■				
GOST	■	■	■	■	■	■	■	■			■	■
Germanischer Lloyd	■		■		■		■	■	■	■	■	■



NEMA 防护等级 NEMA protection level					
NEMA防护等级 NEMA protection level	IP-保护种类 IP-protection type	内部范围 Internal scope	外部范围 Outer scope	内部和外部范围 Internal and external scope	防护： Protection:
NEMA 1	IP 23	■			防护垂直下落 Protection against vertical drops
NEMA 2	IP 30	■			喷水和灰尘 Water spray and dust
NEMA 3	IP 64		■		风尘，灰尘和冰雪 Wind dust, dust and hail
NEMA 3R	IP 32		■		下雨和结冰 Rain and icing
NEMA 3S	IP 64		■		如3，设备也适用于室外和结冰状态下 Such as 3, the equipment is also suitable for outdoor and icy conditions
NEMA 4	IP 66			■	如3，防护喷水束和结冰 Such as 3, protection against water spray and icing
NEMA 4X	IP 66			■	如4,防护结冰和腐蚀 Such as 4, protection against icing and corrosion
NEMA 6	IP 66-68			■	如6P,防护结冰和腐蚀 Such as 6P, protection against icing and corrosion
NEMA 6P	IP 67-68			■	短期浸水 Short-term flooding
NEMA 12, 12K	IP 65	■			灰尘和不带腐蚀的喷水束 Dust and water jet without corrosion
NEMA 13	IP 65	■			如12，防护油和不带防腐的冷却剂 Such as 12, protective oil and no anti-corrosion coolant

NEMA（National Electrical Manufactures Association）是美国电子工业标准机构。根据NEMA的明细表和测试方法Underwriters Laboratories（UL）对我们提供的箱体进行测试。以上的表格是NEMA的保护等级与相应的IP-防护种类。

NEMA (National Electrical Manufactures Association) is the American Electronics Industry Standards Agency. According to the NEMA schedule and test method Underwriters Laboratories (UL), the cabinets we provide are tested. The above table is the protection level of NEMA and the corresponding IP-protection type.

RAL COLOR CARD

RAL色卡



RAL1000 Green beige 米绿色	RAL1001 Beige 米色, 淡黄或灰黄	RAL1002 Sand yellow 沙黄色	RAL1003 Signal yellow 信号黄	RAL1004 Goldenyellow 金黄色	RAL1005 Honey yellow 蜜黄色	RAL1006 Maize yellow 玉米黄	RAL1007 Daffodil yellow 灰黄色	RAL1011 Brown beige 米褐色
RAL1012 Lemon yellow 柠檬黄	RAL1013 Oyster white 牡蛎白	RAL1014 Ivory 象牙色	RAL1015 Light ivory 浅象牙色	RAL1016 Sulfur yellow 硫磺色	RAL1017 Saffron yellow 橘黄色	RAL1018 Zinc yellow 锌黄色	RAL1019 Grey beige 米灰色	RAL1020 Olive yellow 橄榄黄
RAL1021 Rape yellow 油菜黄	RAL1023 Traffic yellow 交通黄	RAL1024 Ochre yellow 赭黄色	RAL1026 Luminous yellow 荧光黄	RAL1027 Curry 咖喱色	RAL1028 Melon yellow 瓜黄色	RAL1032 Broom yellow 金雀花黄	RAL1033 Dahlia yellow 大丽花黄	RAL1034 Pastel yellow 粉彩黄
RAL1035 (金属漆) Pearl beige 珍珠米	RAL1036 (金属漆) Pearl gold 珍珠金	RAL1037 Sun yellow 太阳黄	RAL2000 Yellow orange 黄橙色	RAL2001 Red orange 红橙色	RAL2002 Vermilion 朱红色	RAL2003 Paster orange 粉彩橙	RAL2004 Pure orange 纯橙色	RAL2005 Luminous orange 荧光橙
RAL2007 Leuchthellorange 荧光亮橙	RAL2008 Bright red orange 亮红橙	RAL2009 Traffic orange 交通橙	RAL2010 Somgnal orange 信号橙	RAL2011 Deep orange 深橙色	RAL2012 Salmon orange 鲑鱼橙	RAL2013 (金属漆) Pearl orange 珍珠橙	RAL3000 Flame red 火焰红	RAL3001 Signal red 信号红
RAL3002 Carmine red 胭脂红	RAL3003 Ruby red 宝石红	RAL3004 Purple red 紫红色	RAL3005 Wine red 葡萄酒红	RAL3007 Black red 黑红色	RAL3009 Oxide red 氧化红	RAL3011 Brown red 棕红色	RAL3012 Beige red 米红色	RAL3013 Tomato red 番茄红
RAL3014 Antique pink 古旧粉	RAL3015 Light pink 淡粉色	RAL3016 Coral red 珊瑚红色	RAL3017 Rose 玫瑰色	RAL3018 Strawberry red 草莓红	RAL3020 Traffic red 交通红	RAL3022 Salmon pink 鲑鱼粉	RAL3024 Luminous red 荧光红	RAL3026 Luminous bright red 荧光亮红
RAL3027 Raspbery red 树莓红	RAL3031 Orient red 戈亚红色	RAL3032 (金属漆) Pearl ruby red 珍珠宝石红	RAL3033 (金属漆) Pearl pink 珍珠粉	RAL4001 Red lilac 红丁香紫	RAL4002 Red violet 红紫色	RAL4003 Heather violet 石南紫	RAL4004 Claret violet 酒红紫	RAL4005 Blue lilac 蓝丁香紫
RAL4006 Traffic purple 交通紫	RAL4007 Purple violet 罗兰紫	RAL4008 Signal violet 信号紫	RAL4009 Pastel violet 粉彩紫	RAL4010 elemagenta 电信紫	RAL4011 (金属漆) Pearl violet 珍珠紫	RAL4012 (金属漆) Peal blackberry 珍珠黑莓紫	RAL5000 Violet blue 紫蓝色	RAL5001 Green blue 绿蓝色
RAL5002 Ultramarine blue 群青蓝	RAL5003 Sapphire blue 宝石蓝	RAL5004 Black blue 黑蓝色	RAL5005 Signal blue 信号蓝	RAL5007 Brillant blue 亮蓝色	RAL5008 Grev blue 灰蓝色	RAL5009 Azure blue 天青蓝	RAL5010 Gentian blue 龙胆蓝	RAL5011 Steel blue 钢蓝色
RAL5012 Light blue 淡蓝色	RAL5013 Cobalt blue 钴蓝色	RAL5014 Pigeon blue 鸽蓝色	RAL5015 Sky blue 天蓝色	RAL5017 Traffic blue 交通蓝	RAL5018 Turquoise blue 绿松石蓝	RAL5019 Capri blue 卡普里蓝	RAL5020 Ocean blue 海洋蓝	RAL5021 Water blue 水蓝色
RAL5022 Night blue 夜蓝色	RAL5023 Distant blue 深邃蓝	RAL5024 Pastel blue 粉彩蓝	RAL5025 (金属漆) Pearl gentian blue 珍珠龙胆蓝	RAL5026 (金属漆) Pearl night blue 珍珠夜蓝	RAL6000 Patina green 铜绿色	RAL6001 Emerald greet 翠绿色	RAL6002 Leaf green 叶绿色	RAL6003 Olive green 橄榄绿

RAL COLOR CARD

RAL色卡



RAL6004 Blue green 蓝绿色	RAL6005 Moss green 苔藓绿	RAL6006 Grey olive 灰橄榄绿	RAL6007 Bottle green 瓶绿色	RAL6009 Fir greet 冷杉绿	RAL6010 Grass greet 草绿色	RAL6011 Reseda green 灰绿色	RAL6012 Black green 墨绿色	RAL6013 Reed green 芦苇绿
RAL6014 Yellow olive 黄橄榄绿	RAL6015 Black olive 黑橄榄绿	RAL6016 Turquoise green 松石绿	RAL6017 May green 五月绿	RAL6018 Yellow green 黄绿色	RAL6019 Pastel green 粉彩绿	RAL6020 Ming Green 铬绿色	RAL6021 Light green 苍白绿	RAL6022 Olive drab 橄榄土褐色
RAL6024 Traffic green 交通绿	RAL6025 Fern green 蕨绿色	RAL6026 Opal green 蛋白石绿	RAL6027 Light green 淡绿色	RAL6028 Pine green 松绿色	RAL6029 Mint green 薄荷绿	RAL6032 Signal greet 信号绿	RAL6033 Mint turquoise 薄荷蓝绿	RAL6034 Pastel Turquoise 粉彩蓝绿
RAL6035 (金属漆) Pearl green 珍珠绿	RAL6036 (金属漆) Pearl opal green 珍珠蛋白石绿	RAL7000 Gray squirrel 松鼠灰	RAL7001 Silver 银灰色	RAL7002 Olive gray-green 橄榄灰	RAL7003 Moss grey 苔藓灰	RAL7004 Signal grey 信号灰	RAL7005 Mouse grey 鼠灰色	RAL7006 Mgray 米灰色
RAL7008 Khakigrey 卡其灰	RAL7009 Green grey 绿灰色	RAL7010 Tarpaulin grey 油布灰	RAL7011 Iron grey 铁灰色	RAL7012 Basaltic lime 玄武岩灰	RAL7013 Brown grey 棕灰色	RAL7015 Slate grey 板岩灰	RAL7016 Anthracite grey 煤灰色	RAL7021 Black grey 黑灰色
RAL7022 Umbra grey 暗灰色	RAL7023 Concrete grey 混凝土灰	RAL7024 Graphite grey 石墨灰	RAL7026 Granite grey 花岗岩灰	RAL7030 Stone grey 石灰色	RAL7031 Blue grey 蓝灰色	RAL7032 Pebble grey 卵石灰	RAL7033 Cement grey 水泥灰	RAL7034 Yellow grey 黄灰色
RAL7035 Light grey 浅灰色	RAL7036 Platinum grey 铂金灰	RAL7037 Dustygrey 土灰色	RAL7038 Agate grey 玛瑙灰	RAL7039 Quartz grey 石英灰	RAL7040 Window grey 窗灰色	RAL7042 Traffic grey A 交通灰A	RAL7043 Traffic grey B 交通灰B	RAL7044 Silk grey 丝灰色
RAL7045 Telegrey 1 电信灰1	RAL7046 Telegrey 2 电信灰2	RAL7047 Telegrey 4 电信灰4	RAL7048 (金属漆) Pearl mouse grey 珍珠鼠灰	RAL8000 Green brown 绿棕色	RAL8001 Ochre brown 赭石棕	RAL8002 Signal brown 信号棕	RAL8003 Brown soil 土棕棕	RAL8004 Coper brown 铜棕色
RAL8007 Brown Deer 鹿棕色	RAL8008 Olive brown 橄榄棕	RAL8011 Dark brown 深棕色	RAL8012 Red brown 红棕色	RAL8014 Sepia brown 乌贼棕	RAL8015 Su Brown 栗棕色	RAL8016 Mahogany brown 桃花心木褐	RAL8017 Chocolate brown 巧克力棕色	RAL8019 Grey brown 灰棕色
RAL8022 Black brown 黑棕色	RAL8023 Orange brown 橙棕色	RAL8024 Serge Brown 米黄棕	RAL8025 Pale brown 苍白棕	RAL8028 Tra brown 大地棕	RAL8029 (金属漆) Pearl copper 珍珠铜棕	RAL9001 Cream 奶油黄	RAL9002 Grey white 灰白色	RAL9003 Signal white 信号白
RAL9004 Signal black 信号黑	RAL9005 Black ink 墨黑色	RAL9006 White aluminium 白铝色	RAL9007 Grey aluminium 灰铝色	RAL9010 Pure white 纯白色	RAL9011 Graphite Black 石墨黑	RAL9016 Traffic white 交通白	RAL9017 Traffic black 交通黑	RAL9018 Papyrus white 草纸白
RAL9022 (金属漆) Pearl light grey 珍珠浅灰	RAL9023 (金属漆) Pearl dark grey 珍珠深灰							