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FR IT Rack

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FR IT Rack

As a new-generation high-quality rack developed by Rittal, FR IT Rack adopts the innovative design of combined frame structure, and is compatible with both flat packaging and whole rack transportation. The rack is used to install and place the rack-mounted hardware devices in line with industry standard (EIA-310-E), including servers, voice, data, network devices, UPS and batteries, and can be used in indoor environments such as data centers or small and medium-sized computer rooms.

ENCLOSURES   **POWER DISTRIBUTION**   **CLIMATE CONTROL**

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4 Major product highlights

Easy installation | faster

Device expansion | easy to expand

Convenient transportation | more efficient

Energy conservation and environmental protection | more low-carbon
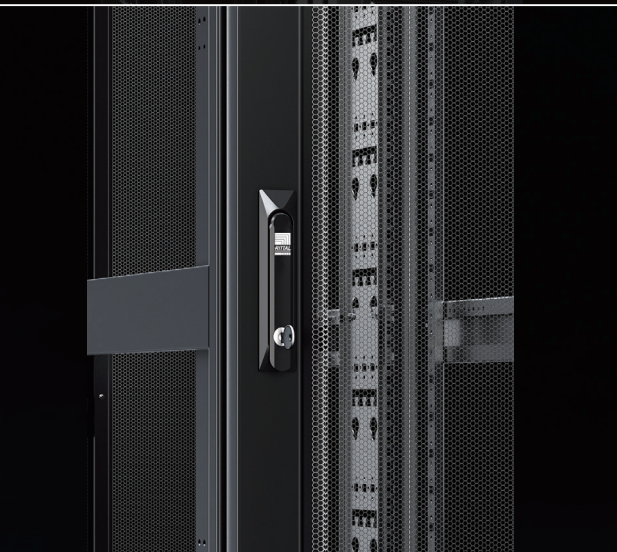
RITTAL

High load capacity and variable internal structure

- Static load capacity: 1500 kg
- Mounting angle with adjustable depth up to 19" for various dimension requirements.
- "U" silkscreen

Multi-functional roof

- Two inlet bushings installed in the front
- High-density hair brush strip installed in the back
- Tool-free installation available

Front door design

- Front single vented door with forward-leaning shape
- High-density hexagonal mesh, 75% vented rate
- 130° hinge
- High-end comfort swing handle
- Tool-free installation available

Rear door design

- Rear vertical divided vented door
- High-density hexagonal mesh, 75% vented rate
- 130° hinge
- High-end comfortable crank handle, with fixed rod
- Tool-free installation available

Side panel design

- Side panel is an option in rack accessory
- Horizontal divided for single-person tool-free installation
- Embedded design, no impact on rack baying after installation
- With safety lock cylinder, improving rack safety

ENCLOSURES **POWER DISTRIBUTION** **CLIMATE CONTROL**

4 Application value of 4 major data center industries

Independent third party
Quick storage, installation and transportation

- **Labor saving:** tool-free assembly
- **Money saving:** low-cost transportation
- **Worry saving:** more convenient transportation and storage

Internet company
Higher device density and capacity

- **Labor saving:** easy and worry-free expansion
- **Trouble saving:** worry-free installation
- **Worry saving:** worry-free seismic resistance

Financial industry
Computer room construction in phases

- **Labor saving:** rapid and easy deployment
- **Money saving:** economical and inclusive
- **Worry saving:** more convenient maintenance

Government and enterprise industry
Chaos and high temperature in the computer room

- **Labor saving:** faster heat dissipation
- **Trouble saving:** complete cable organizing route
- **Worry saving:** more efficient maintenance

IT INFRASTRUCTURE   **SOFTWARE & SERVICES**

RITTAL

FR IT rack

Product features:
- Single front door, 130° hinged, with a comfortable swing handle and single-point lock
- Double rear door, 130° hinged, with a comfortable swing handle and fixed rod
- 75% vented rate
- Static load capacity: 1500 kg

Material and surface finish:
- Frame: high-strength steel, powder coating
- Door and roof: cold-rolled steel sheet, powder coating
- 19" mounting angle: cold-rolled steel plate, powder coating
- Vertical cable cable management plate: cold-rolled steel sheet, powder coating

Color:
- RAL 9005

Scope of supply:
- See the following table.

Vented door rack

U	Quantity	42	42	47	47
Width mm		600	800	600	800
Height mm		2000	2000	2200	2200
Depth mm		1200	1200	1200	1200
Distance between prefitted 19" levels mm		720	720	720	720
Model	1	**7902.620**	**7902.820**	**7902.640**	**7902.840**
Scope of supply					
19" mounting angle	2 pairs	▪	▪	▪	▪
Single front door, 130° hinged, with a comfortable swing handle	1	▪	▪	▪	▪
Double rear door, 130° hinged, with a comfortable swing handle and fixed rod	1	▪	▪	▪	▪
Roof (including inlet bushing and high-density hair brush for cable)	1	▪	▪	▪	▪
Vertical cable management plate	2	▪	▪	▪	▪
Accessory package (grounding wire, screws and nuts)	1	▪	▪	▪	▪

Accessories	
Side panel	Page 7
Base panel	Page 7
Blanking panel	Page 7
L guide rail	Page 8
Component shelf	Page 8
Baying connector	Page 9
Vertical cable organizing route	Page 9
Vertical cable organizing duct	Page 10
Air baffle plate	Page 10
Caster	Page 11
Leveling foot	Page 11
Horizontal cable organizing panel	Page 11

System accessories

Side panel

Applied for FR IT

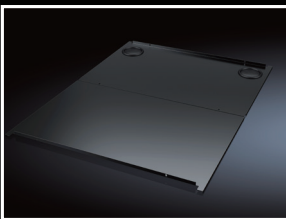Tool-free installation with safety lock cylinder

Material:
- Carbon steel

Color:
- RAL 9005

Scope of supply:
- Include four side panels and installation accessories.

Rack		Packs of	Model
Height mm	Depth mm		
2000	1200	4	**7902.200**
2200	1200	4	**7902.210**

Base panel

Applicable to FR IT

The rack can still be installed after being placed.

Material:
- Carbon steel

Color:
- RAL 9005

Scope of supply:
- Include two base panels (for one rack) and installation accessories.

Rack		Packs of	Model
Width mm	Depth mm		
600	1200	2	**7902.230**
800	1200	2	**7902.240**

Blanking panel, 2U

Tool-free installation

Each 2U blanking panel can be disassembled into two 1U Blanking panels.
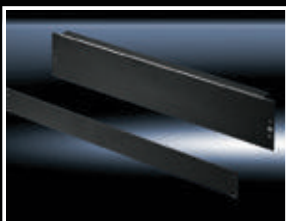
Material:
- ABS

Color:
- RAL 9005

Fire rating:
- UL94-V0

Scope of supply:
- Include five 2U blinding panel

Packaging unit	Model
5	**1194.506**

Blanking panel, 482.6mm (19")

For covering the blank area or individual option.

Material:
- Steel plate

Color:
- RAL 9005

U	Mounting height mm	Packs of	Color	Model DK
1	44	2	RAL 9005	**7187.119**
2	88	2	RAL 9005	**7187.118**

L guide rail, fixed

For mounting on one 19" mounting level.
- System punchings for mounting

Load capacity:
- 30 kg, static

Material:
- Steel plate

Surface finish:
- Zinc plated

Scope of supply:
- Assembly parts

U	Length mm	Packs of	Model DK
2	150	2	5501.400

L guide rail
Applicable to FR IT

Material:
- Carbon steel

Color:
- RAL 9005

Static load:
- 80 KG

Scope of supply:
- Include one pair of L guide rails and installation accessories

19" mounting level spacing mm	Packs of	Model
720	2	7902.300
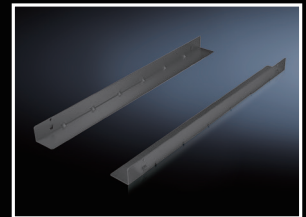
Mounting shelf
Applicable to FR IT

Material:
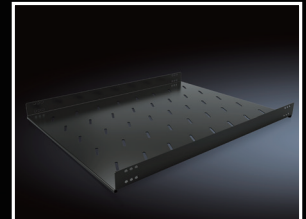- Carbon steel

Color:
- RAL 9005

Static load:
- 100 KG

Scope of supply:
- Include one mounting shelf and installation accessories

19" mounting level spacing mm	Height	Packs of	Model
720	1U	1	7902.310

Component shelf, 2U, static installation
482.6mm (19")

For mounting between 482.6 mm (19") level

Load capacity:
- 25 kg, static bearing capacity

Material:
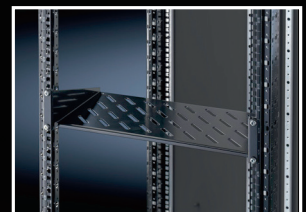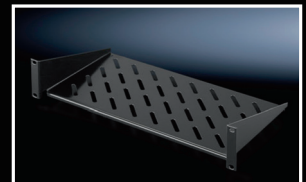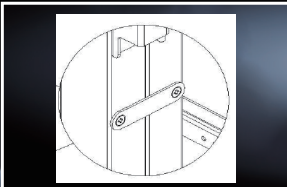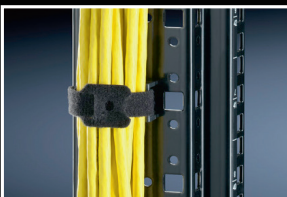- Steel plate

Surface finish:
- Painting

Color:
- RAL 9005

Scope of supply:
- Assembly parts.

Support plate depth mm	Packs of	Model
250	1	5501.615
400	1	5501.625
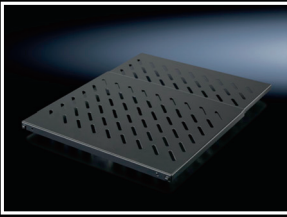
Component shelf, static installation

482.6 mm (19"), depth-variable
For mounting on one 19" mounting level.

- Depth-variable to adapt to individual distances between levels
- Tool-less, time-saving one-man assembly

Material:
- Steel plate

Surface finish:
- Painting

Color:
- RAL 9005

Scope of supply:
- Assembly parts

Front and rear 19" level distance mm	Static loading capacity kg	Height U	Packs of	Model
400–600	50	$^1/_2$	1	5501.655
600–900	50	$^1/_2$	1	5501.665
400–600	100	1	1	5501.695
600–900	100	1	1	5501.705

Vertical cable management plate

Applicable to FR IT
Used for cable support, cable routing and PDU installation in the application fields of network and server.

Material:
- Carbon steel

Color:
- RAL 9005

Scope of supply:
- Include two cable management plate (left and right) and fixing parts

Rack height mm	Packs of	Model
2000	2	7902.410
2200	2	7902.420

Nylon tie

It can be fixed in any 10.5mm*12.5mm square hole of the rack.

Material:
- Plastic

Scope of supply:
- Include 10 nylon ties and snap clips

Packs of	Model
10	5502.155

Baying, external

Applicable to FR IT

Material:
- Carbon steel

Color:
- RAL 9005

Scope of supply:
- 4 bayings and installation kits

Packs of	Model
4	7902.280

Vertical cable duct

Applicable to FR IT 800 W racks

Installed on the side of 19" mounting angle of 800 W rack, realizing high-density layout and management of cables of the rack.
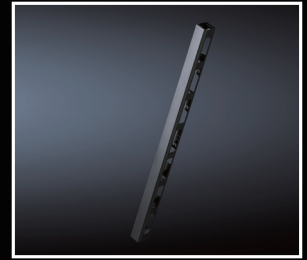
Material:
- Carbon steel

Color:
- RAL 9005

Scope of supply:
- Include the cable duct, cover plate and installation part.

Applicable rack height mm	Packs of	Model
2000	2	**7902.320**
2200	2	**7902.330**

Air baffle plate of 600mm wide rack

Applicable to FR IT

- Installed on both sides of 19" rail of 600mm wide rack, preventing hot and cold airflow mixing

- If the front mounting angle of 600mm wide rack is installed according to the factory position, the baffle plate may not be used.
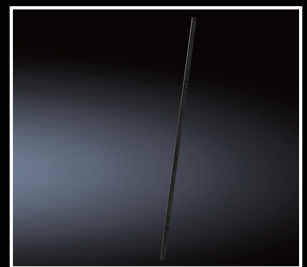
Material:
- Main body: carbon steel
- Hair brush: black nylon brush strip

Scope of supply:
- Include 4 air baffle plates (left and right) and installation accessories

Rack		Packs of	Model
Height mm	Width mm		
2000	600	4	**7902.350**
2200	600	4	**7902.370**

Air baffle plate of 800mm wide rack

Applicable to FR IT

Installed on both sides of 19" rail of 800mm wide rack, preventing hot and cold airflow mixing
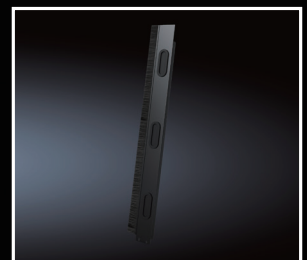
Material:
- Main body: carbon steel
- Hair brush: black nylon brush strip

Scope of supply:
- Include 4 air baffle plates (left and right) and installation accessories

Rack		Packs of	Model
Height mm	Width mm		
2000	800	4↑	**7902.360**
2200	800	4↑	**7902.380**

PDU mounting panel

Applicable to FR IT

Material:
- Carbon steel

Color:
- RAL 9005

Scope of supply:
- Include four mounting panels and installation accessories.

Packs of	Model
4	**7902.400**
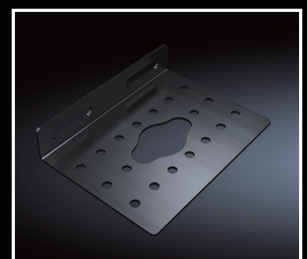
System accessories

M6 screw set

Material:
- Carbon steel, plastic part

Scope of supply:
- 50 sets of M6 cage nuts, M6 screws and plastic washers included

Packs of	Model
50	**7187.137**

Casters
Applicable to FR IT

Material:
- Carbon steel, nylonl

Static load:
- 500 KG for each rack

Scope of supply:
- Four casters and fasteners included

Packs of	Model
4	**7902.270**

Leveling foot
Applicable to FR IT

- Fixed thread of M10
- Recommended maximum ground clearance of 50mm

Material:
- Carbon steel, nylonl

Scope of supply:
- Include four leveling feet

Packs of	Model
4	**7902.260**

Horizontal cable duct，2U

The cable routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips.

Material:
- Steel plate

Color:
- RAL 9005

U	Depth mm	Packs of	Model
2	55	1	**5502.235**

FR IT Rack

Cable shunting ring

Material:
- Zinc plated carbon steel

Scope of supply:
- Ten wire organizing rings and mounting accessories included

Dimensions mm	Packs of	Model
125 x 65	10	**7111.000**
125 x 85	10	**7111.900**
85 x 43	10	**7112.000**

Cable management panel with steel rings

Installed on 19" mounting angle for horizontal cable management

Material:
- Panel: steel
- Steel rings: steel

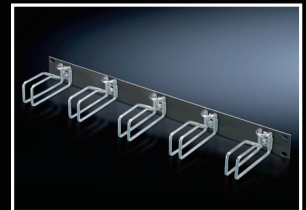**Surface finish:**
- Steel rings: zinc plating

Color:
- Operating panel: RAL 9005

Scope of supply:
- 1 operating panel and 5 cable shunting rings

| U	Mounting height mm	Packs of	Model
1	43 x 55	1	**5502.205**
1	43 x 105	1	**7257.005**
2	85 x 125	1	**7257.105**

System accessories

Aisle containment

Application and mode of operation:
The aisle closing system is a combination of door and cover components for completely separating heat air and cool air of the data center. This is very important for energy saving and efficiency improving of the existing temperature control system. The system may be used for cool aisle or heat aisle, combining CRAC.

- Inlet (cool air) and outlet (heat air) will not be mixed.
- The entire cooling system may operate at a higher set temperature.
- CRAC can operate at the maximum efficiency as the temperature difference between cool air and heat air is large.
- The aisle has similar modularized structure which is extensible and convertible.
- Easy installation
- An economical rational solution for the existing data center for the best cooling result
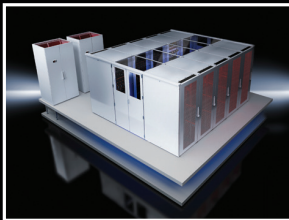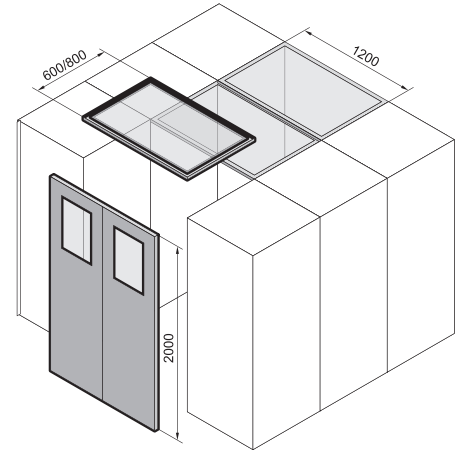
With elevated floor (cool aisle)

- Can be installed out of the server area with highly cost-efficiency CRAC unit
- Sufficient cool air can be provided free of flow loss through the elevated floor even if the room height is very low
- The balanced cool air without turbulence provided in the cool aisle ensures high efficiency
- All equipment can work in a sound environment due to relatively low temperature, reasonable air flow organization and low noise
- The cooling effect will not be reduced by any rack unclosed in the cool aisle
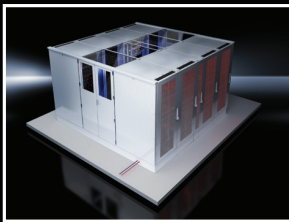
Without elevated floor (cool aisle)

- Convenient pipe laying on the support base
- Even distributed cool air in the cool aisle ensures high efficiency
- All equipment can work in a sound environment due to relatively low temperature, reasonable air flow organization and low noise
- The cooling effect will not be reduced by any rack unclosed in the cool aisle
- Loose requirement of room height
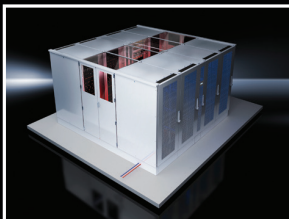
Without elevated floor (heat aisle)

- Easily installed aisle closing parts
- Convenient pipe laying on the support base
- For occasions with large heat dissipation
- Can also eliminate internal heat dissipation
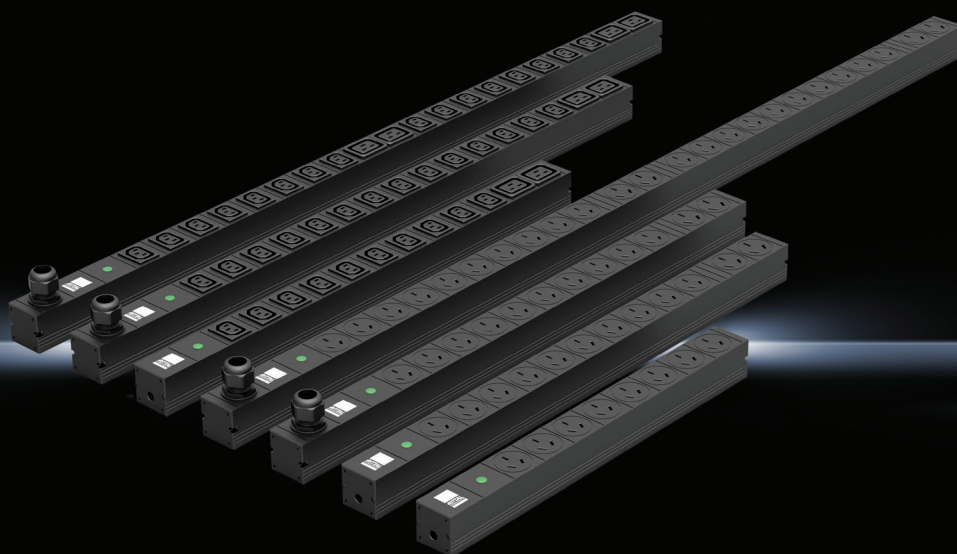
Product features:
- Compact structure PDU for flexible installation
- All selected materials conform to ROHS
- Strong extension capability for various output units
- Widely used for the installation and operation of 482.6mm (19'') standard racks and non-standard racks

Material:
- Extruded aluminum profiles, anodized

Standard:
- IEC 60320, I EC 60309, IEC 60950-1, GB 1002

Certification:
- Passed DEKRA test

Protection level:
- IP20

Scope of supply:
- 8 digits and 12 digits output: Standard configuration: 3m input cable and plug
- Over 16 digits (16 included) output: Standard configuration: 2m input cable and plug

GB standard parameters

Power supply		Socket type			Dimensions (mm)			Mounting method	Color	Model
Phase	Current	Input	Output 10A	Output 16A	Length	Width	Depth			
Single	16A	GB1002	8	–	437	44	44	1U horizontal	RAL 9005	**7187.114**
Single	16A	GB1002	10	2	627	44	44	0 U vertical	RAL 9005	**1194.515**
Single	32A	IEC60309	10	2	677	44	44	0 U vertical	RAL 9005	**1194.516**
Single	32A	IEC60309	20	4	1227	44	44	0 U vertical	RAL 9005	**1194.523**

IEC standard parameters

Power supply		Socket type			Dimensions (mm)			Mounting method	Color	Model
Phase	Current	Input	Output C13	Output C19	Length	Width	Depth			
Single	16A	GB1002	10	2	607	44	44	0 U vertical	RAL 9005	**7187.110**
Single	32A	IEC60309	14	2	827	44	44	0 U vertical	RAL 9005	**1194.520**
Single	32A	IEC60309	16	4	997	44	44	0 U vertical	RAL 9005	**1194.522**

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