Switching & Routing

Minkels solutions for switching and routing equipment
The airflow in some switching and routing equipment differs from the standard front to back cooling. If this type of switch is installed in a Cold Corridor® environment, it is important to make sure the equipment is receiving enough cold air, the air is not being recirculated internally, and one switch is not blowing hot air into the air intake of another switch. Besides airflow / cooling, you must also consider the number of cables and the exchange of any hot-swappable ventilation fans and power modules.

**SPECIALISED RACKS**
A special rack will be necessary to create sufficient space for the network cables and to allow the air to flow from right to left. Some Cisco® equipment requires a rack that is 800 mm (31.5") wide while other equipment requires a rack that is 1000 mm (39.4") wide.

Open spaces in the rack must be filled. You can fill the right side of the rack with cover plates and install front panels on the front side of the server rack. Cables must be routed carefully along the side of the rack. It is common practice to route all the cables from left to right along the front of the switch when installing the ventilation fan module(s).
Racks

A SOLUTION FOR EVERY SITUATION
Minkels has developed a 1000 mm wide rack for the Cisco Nexus 7004, 7009 and 7018, which takes the specific features of these products into account. Minkels has developed a rack with a width of 800 mm for amongst others the Cisco Catalyst 6500 series and Cisco MDS 9500 series. These 800 and 1000 mm wide switching and routing racks are available in different heights: 2000, 2200 and 2400 mm. The racks are equipped with 80% ventilated doors. The integrated air baffle ensures that there is always sufficient cold air on hand for keeping the sides cool. Two PDUs can be mounted vertically (A and B feed) in all racks. Vertical cable management accessories for routing network cables are included.
### Specifications

**Front - back**
- Single 80% perforated door with swing handle — K333 cylinder
- Double 80% perforated door with swing handle — EK333 cylinder
- Top: With cable entry brush — Compatible with Minkels cable duct system
- Bottom: Sealed with bottom plate and cable entry brushes
- Left and right side panels: 4x 6mm square locks

**19° HE indicator**
- Yes

**Airflow**
- From front to back — right to left

**Power management**
- Standard (aluminium) Minkels PDUs can be integrated (MPSxxxx series)

### Accessories

- **Front plates**
  - Minkels 1U, plastic RAL 9005, 25 units

- **Cover plates right side**
  - 2 U adjustable 450 – 550 mm, RAL 9011
  - 3 U adjustable 700 – 800 mm, RAL 9011
  - 2 U adjustable 450 – 550 mm, RAL 9001
  - 3 U adjustable 700 – 800 mm, RAL 9001

- **Cable guides**
  - 41 U / 2000 mm / 10 cable guides incl. accessory mounting rails
  - 48 U / 2200 mm / 10 cable guides incl. accessory mounting rails
  - 50 U / 2400 mm / 10 cable guides incl. accessory mounting rails

### Accessory Settings
- 1 Air baffle is 5 U
- 2 Installed in the front of the rack
- 3 Adjustment settings: 19-inch distance front – back side to minimum 673 mm
- 4 Adjustment settings: 19-inch distance front – back side to minimum 573 mm (in a rack that is 1000 mm deep)
PRODUCTS
Minkels has developed a "letter box" for the 1 U and 2 U switches. The equipment is mounted on the back of the rack and receives cold air from the front of the rack (Cold Corridor). This allows the cables to be routed alongside the back of the equipment, while still cooling the product with cold air. These products are easy to mount in the rack.
INLET DUCT 1 U-2 U SPECIFICATIONS

### General
- **Colour**: Sendzimir
- **RAL 9011 (perforated front panel)**

### Measurements and weight
- **Height (H)**:
  - 1 U (44, 88 mm)
  - 2 U (350-500 mm adjustable)
- **Depth (D)**:
  - 210-300 mm adjustable (1 U version)
  - 350-500 mm adjustable (2 U version)
- **Width (W)**: 19-inch
- **Weight**:
  - ± 2,6 kg (1 U version)
  - ± 2,8 kg (2 U version)

### Specifications

<table>
<thead>
<tr>
<th>Cable entry</th>
<th>Bottom and top</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Switch compatibility</strong> 1 U³</td>
<td></td>
</tr>
<tr>
<td><strong>Cisco</strong></td>
<td>Nexus 2.248, 3.232, 3.128, 3.304, 3.320, 3.392, 3.376, 3.304, 3.320, 3.392, 3.376</td>
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<tr>
<td><strong>Brocade</strong></td>
<td>300, 5300, 6250, 6720, 6800, 6810, 6810, 6820, 6820, 6820, 6820, 6820, 6820</td>
</tr>
<tr>
<td><strong>Juniper</strong></td>
<td>EX3300, QFX3500, QFX3600</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Other switches are also possible. We would be happy to advise you.</td>
</tr>
</tbody>
</table>

| **Switch compatibility** 2 U³ |
| **Brocade** | 6520, VDX 6720-64, VDX 6730-32, Encryption |
| **Other** | Other 2x one compatible 1 U switch. Other switches can also be used. We would be happy to advise you. |

³ Mounted on the back of the rack

SWITCHING & ROUTING PRODUCTS

| MRS0001 | Air Duct 1 U for the back, extendable 210-300 mm Sendzimir |
| MRS0002 | Air Duct 2 U for the back, extendable 350-500 mm Sendzimir |

KNOWLEDGE AND EXPERIENCE

The experts at Minkels are happy to advise you about the best enclosures for your switching and routing equipment. We would like to help you make the right product and design choices.

The Minkels sales & service team is here to serve you! Please do not hesitate to contact us.