

CATALOGUE



STANDARD PRODUCT CATALOGUE



CONTENTS

Foreword	4
1. Housing	12
1.1 Server and network racks with airflow management pack	13
1.2 Server and network racks without airflow management pack.....	14
1.3 Switching and routing racks.....	16
1.4 Integration racks.....	18
1.5 Mechanical accessories	20
1.6 Cable management	32
1.7 Airflow optimisation.....	44
1.8 Security	48
1.9 Wall enclosures	50
2. Cooling	56
2.1 Passive cooling: Aisle containment - Roof systems.....	57
2.2 Passive cooling: Aisle containment - Panel systems.....	58
2.3 Passive cooling: Aisle containment - Door systems	61
2.4 Passive cooling: Aisle containment - Accessories.....	62
2.5 Active cooling: VariCondition dummy coolers and fillers.....	63
3. Power & Connectivity	64
3.1 Basic PDU	65
3.2 Intelligent PDU	66
4. Monitoring	68
4.1 Environmental monitoring system.....	69
5. Micro data centres	72
5.1 MatrixCube.....	73
5.2 MiniCube	76
Index.....	78

MINKELS: the **worldwide specialist**

in scalable and integrated data centre
infrastructure solutions

ABOUT MINKELS

Minkels is a knowledge-driven producer and worldwide supplier of high-quality solutions for data centre infrastructure. The Minkels brand is part of the product portfolio of Legrand, a publicly traded company (NYSE Euronext Paris: LR) with worldwide sales in the low voltage installation, data network and data centre markets.

Legrand operates in more than 180 countries and achieved worldwide revenues of 5 billion euros in 2016.

Minkels products stand out for their innovativeness and flexibility. Customers can always be assured that they will get the very latest data centre technology: modular solutions that respond to evolving, customer specific business requirements.

OUR PROMISE

Powered by experts

OUR CORE VALUES

All our products are future-proof by nature. We see that as a 'must', because the role of data centres is changing rapidly, driven by factors such as the cloud, the Internet of Things (IoT), Big Data and IT cost reduction. Minkels believes that modularity and complete integration are the key to a future-proof data centre. Only this makes offering the right degree of flexibility and efficiency possible. These are not just buzzwords for Minkels - it's something we really stand for. These are our core values:

- **Innovation and flexibility**

Minkels handles its development, production and sales in-house. Combined with the requisite knowledge and expertise which Minkels possesses, this ensures customers are always receiving the latest data centre technology.

- **From standard to customer specific**

With Minkels, you are always provided with a data centre solution that will suit you, whether it's a standard solution or a customer specific product.

- **Energy efficiency**

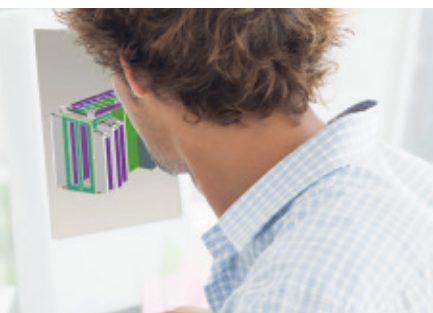
Legrand and Minkels value Corporate Social Responsibility (CSR) very highly. Minkels therefore aims to retain its leading position in energy-efficient solutions, allowing both the customer and the environment to benefit.

- **Modularity and integration**

Modularity and complete integration are the foundations for a flexible, efficient and future-proof data centre.

- **Global presence, local excellence**

Minkels aims for consistent quality and availability of its products worldwide, complemented by local service.



Solutions for your data
centre or server room

Powered by experts!

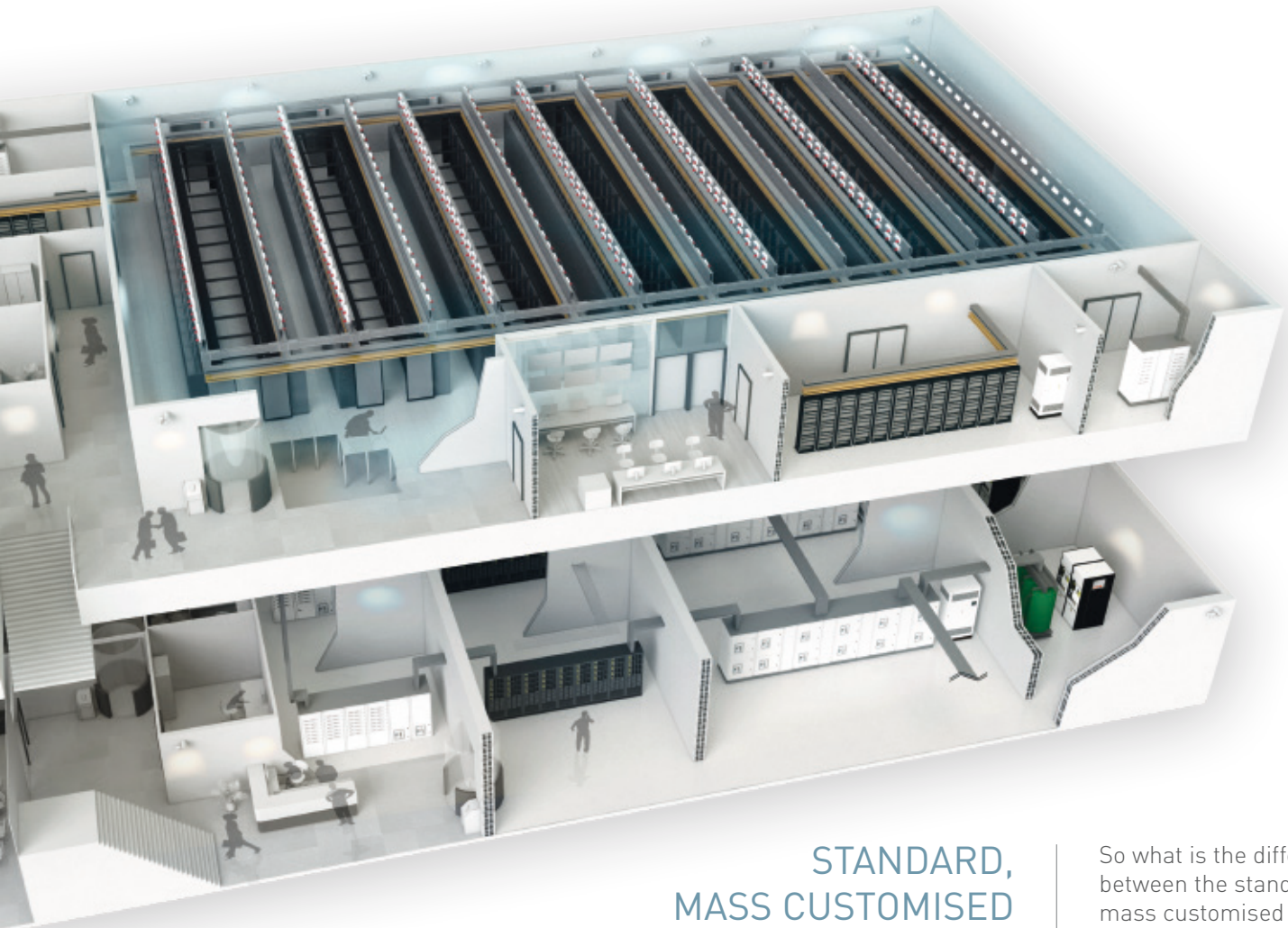
The emphasis of this catalogue is on our standard products. If you cannot find the products you are looking for and would like to know more about mass customisation or the customised products we can supply, we will be happy to help you. You can find the contact details on the back side of this brochure.

Minkels is part of the publicly traded company Legrand (NYSE Euronext Paris: LR). Whereas Legrand focuses on building-related infrastructure, Minkels makes a distinction between:

- data centre and cloud infrastructure
- building-related IT infrastructure




With Minkels, you are always provided with a solution that will suit you, whether it's a standard solution or a customer specific product. The focus of this catalogue is on our standard solutions. These products are held in stock and can be delivered quickly. If you need more flexibility combined with short delivery times, taking a look at our Mass Customisation brochure could be the right option for you: (minkels.com/downloads). Or if you would like an entirely customised solution, our sales department will be glad to help.





STANDARD, MASS CUSTOMISED OR CUSTOMER- SPECIFIC PRODUCTS?

So what is the difference between the standard, mass customised and customer specific products? Here is a brief overview:

	Standard	Mass customised	Customer specific
			
Product-type	Predefined products	Standard 'building blocks' can be put together in a extremely large number of combinations	Entirely customised: co-development between you and our engineers
Logistics	Most products can be delivered straight from stock	Optimum logistical process	Depending on your requirements (Based on business case)

You can download our documentation via:
www.minkels.com/downloads

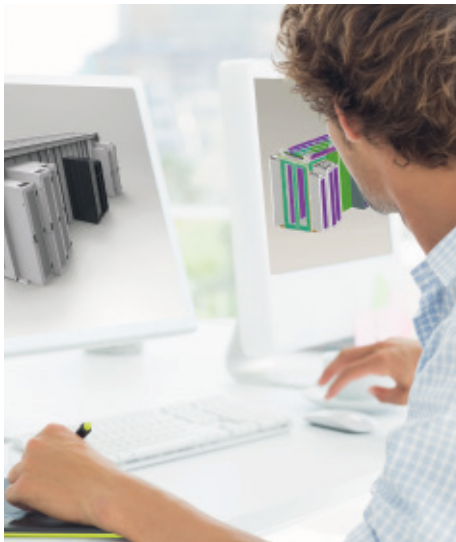
MINKELS SERVICES

When it's about more
than just the products



Installation service

Minkels has extensive capabilities for pre-assembly. Accessories can for instance be fitted in our racks in advance, enabling you to save on the installation costs. Minkels can also install its integrated solutions for you on site. We are a manufacturer with an extensive network of service partners who can provide you with support during the purchasing process and the installation.



Technical Support

Minkels engineers are highly qualified data centre professionals. They will be happy to brainstorm with you to find the best conceivable solution.



Initial use and training

Support from Minkels doesn't end with the delivery. Together with our partners, we facilitate commissioning and training of e.g. row-based cooling.



Logistical services

Minkels can also offer you a range of logistical services such as worldwide transport and various stock control options.




Customer service


Any questions?
You can call us or send us an e-mail. We will be happy to help you! You can find the contact details on the back side of this brochure




Online

Information available
24 hours a day

 [Minkels.com](http://www.minkels.com)

 [Youtube.com/c/minkelshq](https://www.youtube.com/c/minkelshq)

 [Twitter.com/Minkels_HQ](https://twitter.com/Minkels_HQ)

 [Facebook.com/Minkels](https://www.facebook.com/Minkels)

 [Linkedin.com/company/minkels](https://www.linkedin.com/company/minkels)

Standard **PRODUCT CATALOGUE**

WHAT WILL YOU FIND IN THIS STANDARD PRODUCT CATALOGUE?

The core values of modularity, flexibility and energy efficiency are reflected throughout our extensive standard product portfolio. This means you always benefit from the latest technology and you will see it integrated into our standard solutions almost instantly.



1. Housing

Minkels offers a wide range of preassembled server and network racks, with flexibility, sustainability and service as the keywords. The server and network racks are widely applicable and modular in structure.



2. Cooling

Cooling your data centre correctly can reduce your energy costs considerably. Aisle containment is the solution to the challenge that data centres have faced from the very start: how to optimise the cooling and energy efficiency through optimum separation of the warm and cold airflows.



3. Power & Connectivity

Power is an operationally critical component of any server room and any data centre. Even the slightest interruption to the power supply can have a huge impact. Legrand's Power & Connectivity solutions make it possible to manage the risks of power outages. Minkels and Legrand made this part of their policy for supplying energy-efficient solutions for data centres.

WANT TO KNOW MORE?

The emphasis of this catalogue is on our standard products. If you cannot find the products you are looking for and would like to know more about mass customisation or the customised products we can supply, we will be happy to help you. You can find the contact details on the back side of this brochure.



4. Monitoring

Minkels monitoring systems are capable of monitoring the direct surroundings of your racks. The modular and efficient construction of the system makes it easy to check up on a single rack or an entire room.

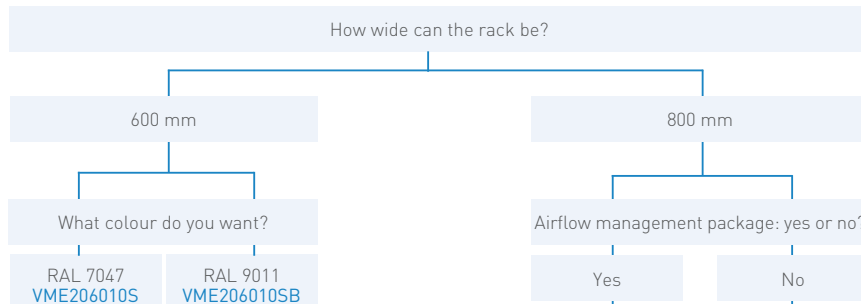


5. Micro data centre

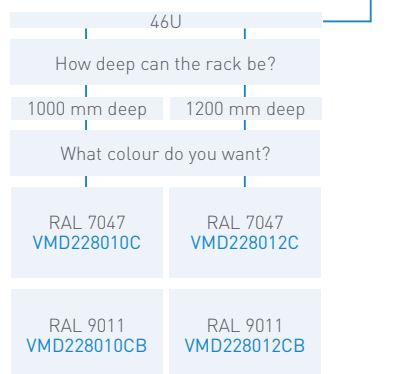
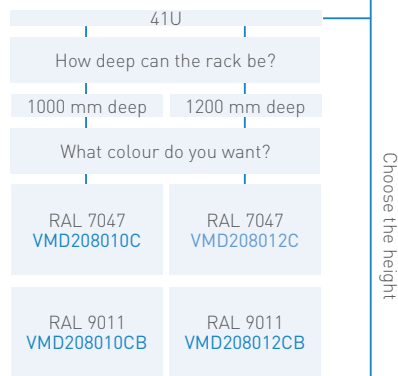
Minkels micro data centre solutions are all about making ordering easy. Simplicity combined with reliability, efficiency and cost-effectiveness. Complete, assembled solutions can be ordered using just a single item number! And all the solutions can of course be extended with a number of options and accessories.

Preassembled SERVER AND NETWORK racks

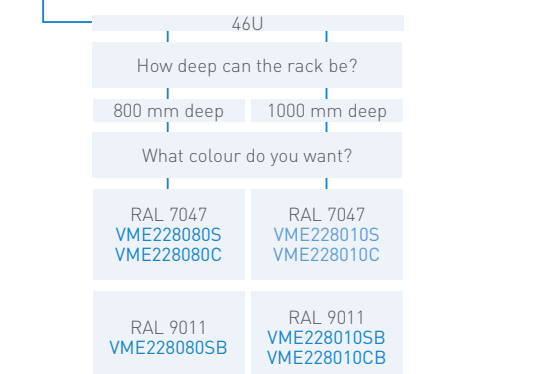
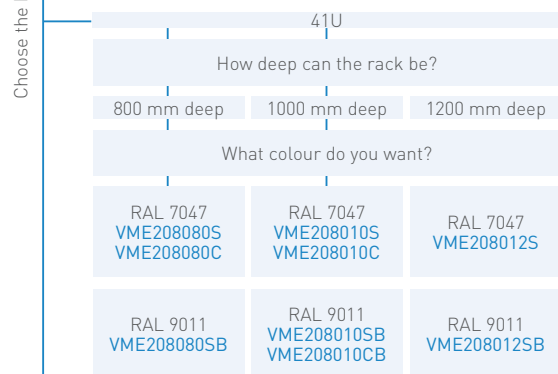
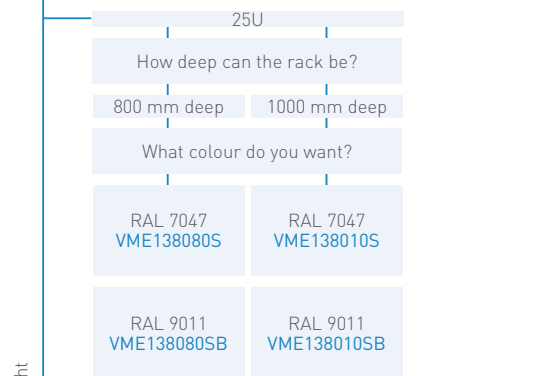
Use the flow diagram below to find the right rack!



You can find further specifications in the table on page 14. [Server and network racks, 600 mm wide](#)



You can find further specifications in the table on page 13. [Server and network racks, 800 mm wide with airflow management](#)



You can find further specifications in the table on pages 14 and 15. [Server and network racks, 800 mm wide](#)

Minkels offers a wide range of server and network racks, with flexibility, sustainability and service as the keywords. The server and network racks are widely applicable and modular in structure. The Minkels range includes server and network racks that are 600 and 800 mm wide. The 600 mm-wide rack is a compact server rack that can take large loads but has a small footprint. The 800 mm-wide rack is exceptionally well suited for patching, network and server equipment with sufficient space for power and network cabling.

A distinction is made between stand-alone (S) and connecting racks (C). Stand-alone racks are delivered with (detachable) side panels. Connecting racks do not have side panels but have baying kits supplied instead.

1. Housing 1.1 Server and network racks with airflow management pack



VMD208010C

VMD208010CB

Server and network racks, 800 mm wide with airflow management pack

Minkels can provide server and network racks that are 800 mm wide with an airflow management package. These packages keep the loss of air to a minimum, which improves energy efficiency.



Connecting rack RAL 7047	VMD208010C	VMD208012C	VMD228010C	VMD228012C
Connecting rack RAL 9011	VMD208010CB	VMD208012CB	VMD228010CB	VMD228012CB
Height in U	41	41	46	46
Height in mm	2000	2000	2200	2200
Width in mm	800	800	800	800
Depth in mm	1000	1200	1000	1200
Front door	80% perforated	80% perforated	80% perforated	80% perforated
Rear door	80% perforated	80% perforated	80% perforated	80% perforated
Max. load (static)	1500 kg	1500 kg	1500 kg	1500 kg
Security	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock
Roof layout	3 cover plates and 1 cable entry brush set	3 cover plates and 1 cable entry brush set	3 cover plates and 1 cable entry brush set	3 cover plates and 1 cable entry brush set
19-inch profiles	4 pcs	4 pcs	4 pcs	4 pcs
Delivered separately	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer

1. Housing 1.2 Server and network racks without airflow management pack

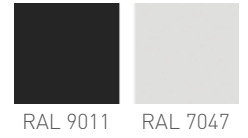


VME206010SB

VME206010S

Server and network racks, 600 mm wide without airflow management pack

Two racks 600 mm-wide are available in the standard product range.



RAL 9011

RAL 7047

Stand-alone rack RAL 7047	VME206010S
Stand-alone rack RAL 9011	VME206010SB
Height in U	41
Height in mm	2000
Width in mm	600
Depth in mm	1000
Front door	80% perforated
Rear door	80% perforated
Max. load (static)	1500 kg
Security	Fix Easy 2-point swivel handle with EK-333 cylinder lock
Roof layout	2 cover plates and 1 cable entry brush set
19-inch profiles	4 pcs
Delivered separately	M5 20 cage nuts / M5 20 screws with finishing washer

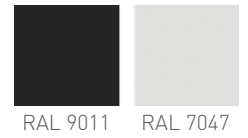


VME208080S

VME208010SB

Server and network racks, 800 mm wide without airflow management pack

Server and network racks 800 mm wide without an airflow management pack are available in a number of standard variations.



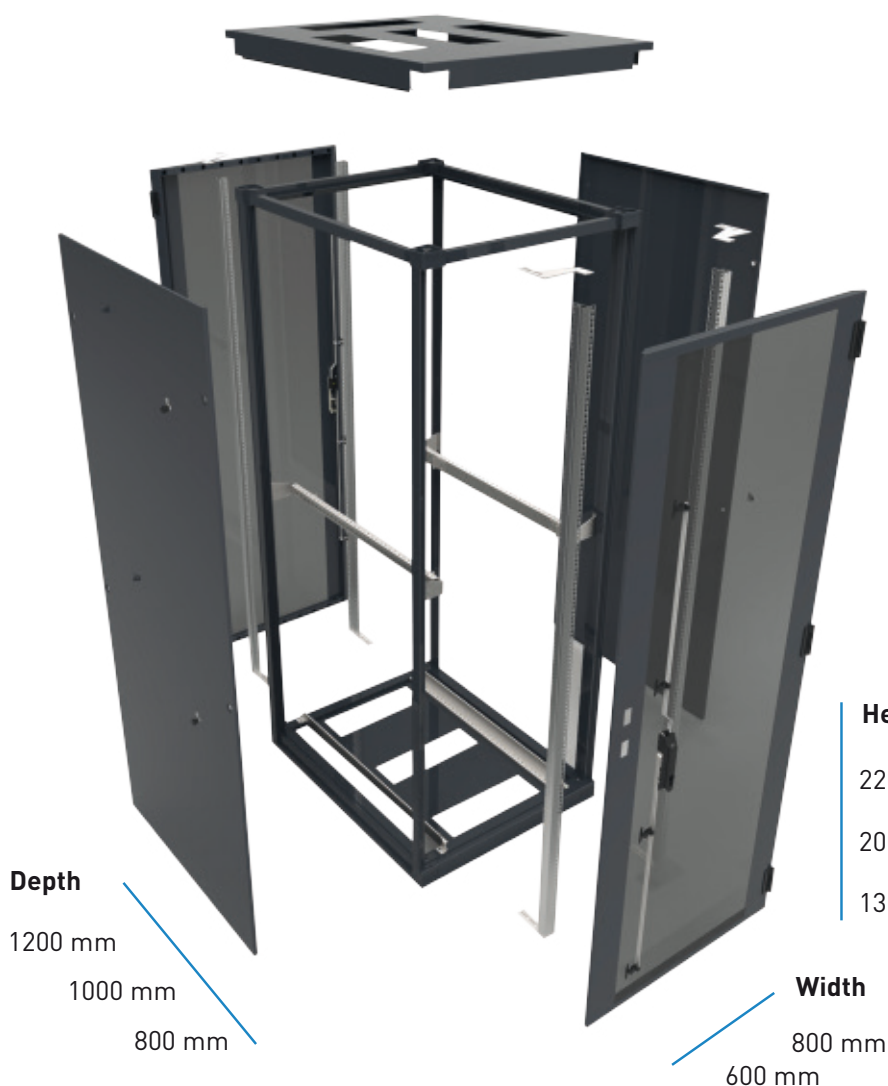
RAL 9011

RAL 7047

Stand-alone rack RAL 7047	VME138080S	VME138010S	VME208080S
Stand-alone rack RAL 9011	VME138080SB	VME138010SB	VME208080SB
Connecting rack RAL 7047			VME208080C
Connecting rack RAL 9011			
Height in U	25	25	41
Height in mm	1300	1300	2000
Width in mm	800	800	800
Depth in mm	800	1000	800
Front door	Clear glass	80% perforated	Clear glass
Rear door	Metal	80% perforated	Metal
Max. load (static)	1500 kg	1500 kg	1500 kg
Security	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock
Roof layout	2 cover plates and 1 cable entry brush set	3 cover plates and 1 cable entry brush set	2 cover plates and 1 cable entry brush set
19-inch profiles	4 pcs	4 pcs	4 pcs
Delivered separately	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer

The 19-inch profiles are fitted as standard at 125 mm from the front and 740 mm apart.
For 800 mm deep racks, the rear 19" profiles are at 87.5 mm (the separation between them is in that case 587.5 mm rather than 740 mm).

1. Housing 1.2 Server and network racks without airflow management pack



The standard dimensions in which the server and network racks are available are shown on the left. If you require a rack with different dimensions, please take a look at our mass customisation brochure: www.minkels.com/downloads.

If you would like to know what Minkels can do for you, please don't hesitate to contact us!

You can find the contact details on the back side of this brochure

Height

2200 mm / 46 HE

2000 mm / 41 HE

1300 mm / 25 HE

Width

800 mm

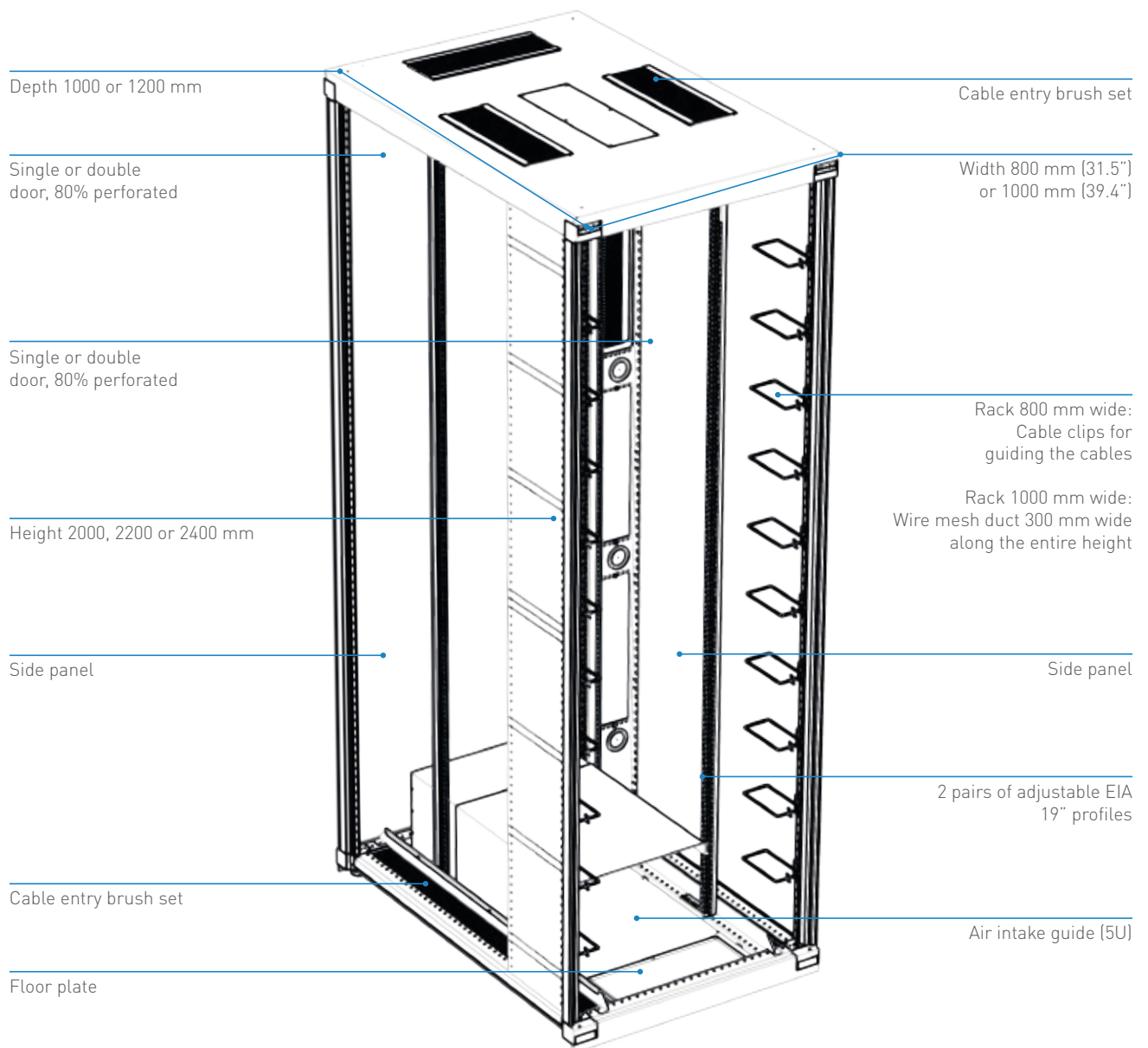
600 mm

VME208010S	VME208012S	VME228080S	VME228010S
VME208010SB	VME208012SB	VME228080SB	VME228010SB
VME208010C		VME228080C	VME228010C
VME208010CB			VME228010CB
41	41	46	46
2000	2000	2200	2200
800	800	800	800
1000	1200	800	1000
80% perforated	80% perforated	Clear glass	80% perforated
80% perforated	80% perforated	Metal	80% perforated
1500 kg	1500 kg	1500 kg	1500 kg
Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock
3 cover plates and 1 cable entry brush set	3 cover plates and 1 cable entry brush set	2 cover plates and 1 cable entry brush set	3 cover plates and 1 cable entry brush set
4 pcs	4 pcs	4 pcs	4 pcs
M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer	M5 20 cage nuts / M5 20 screws with finishing washer

SWITCHING & ROUTING racks

Many pieces of switching and routing equipment require a different airflow than the customary 'front-to-back' cooling. If 'such a switch' is included in a corridor configuration, situations in which the equipment receives insufficient cold air, internal recirculation of the air occurs, and as a result one switch blows hot air into the next, must be avoided. In addition to the airflow/cooling, it is important to take account of the amount of cabling and the possibility of hot-swapping fans and power modules.

To create enough space for the network cables and the airflow from right to left, Minkels has developed a specialised Switching & Routing rack.



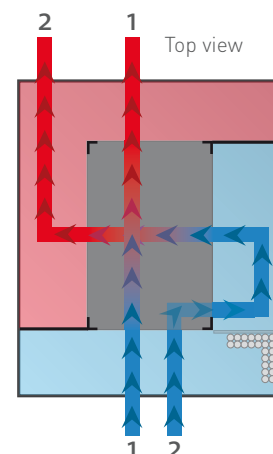
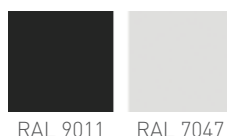
1. Housing 1.3 Switching & routing racks



MRS2080

Switching & routing racks

Minkels Switching & Routing racks are ideal for housing powerful switching and routing equipment (e.g. the Cisco 6500 7000 series). The racks combine the best possible cooling performance with capacity for a large amount of network cabling.



RAL 7047 (800 mm wide)	MRS208010	MRS208012	MRS228010	MRS228012	MRS248010	MRS248012
RAL 9011 (800 mm wide)	MRS208010B	MRS208012B	MRS228010B	MRS228012B	MRS248010B	MRS248012B
RAL 7047 (1000 mm wide)		MRS201012		MRS221012		MRS241012
RAL 9011 (1000 mm wide)		MRS201012B		MRS221012B		MRS241012B
U	41	41	46	46	50	50
Height	2000	2000	2200	2200	2400	2400
Depth	1000	1200	1000	1200	1000	1200
Single or double door	80% perforated					
Max. load (static)	1500 kg					
Security	Fix Easy 2-point swivel handle with EK-333 cylinder lock					
Roof layout	1 cable entry brush set					
Floor layout	Sealed with a floor plate and cable entry brushes					
19-inch profiles	4 pcs					



Watch the Switching & Routing rack clip on the Minkels YouTube channel:

[Youtube.com/c/minkelshq](https://www.youtube.com/c/minkelshq)



Switching & routing cover plates

The empty space between the switching and routing devices must to be covered with Fix Easy front plates, which you can find on page 45. To block off the gaps in the depthwise direction, cover plates are needed that run from front to back. These cover plates are available in heights 2U and 3U.

Height 2U	MRS0102	MRS0112	MRS0122
Height 3U	MRS0103	MRS0113	MRS0123
Slide-in, in mm	450 - 550 mm	550 - 650 mm	650 - 850 mm

MINKELS INTEGRATION racks

can be moved with equipment
already installed

The Integration Rack offers possibilities for installing IT equipment and testing it prior to transport to the location where it will actually be used. This allows for an enormous reduction in costly on-site installation and testing hours of IT equipment can be cut back enormously. This may sound simple, but it requires high dynamic loads, stable rolling capabilities and a flexible but robust 19-inch interior. The Integration Rack is the result of years of cooperation with a Minkels customer who has worldwide operations. Thus, the above technology has already proved its worth in the market.



Cable management for the Integration Rack

Minkels Integration Racks can be fitted with cable fitting strips and cable management panels.

Cable fitting strips

Cable fitting strips allow compact cable bundling, particularly when combined with closed-loop cooling

Cable management panels

Cable management panels allow vertical cable management in open-loop configurations. The panels have six cable guide clips.

Cable fitting strip	MIR0101	MIR0110
Height in U	41	46
Colour	RAL9011	RAL9011

Cable management panel incl. 6x cable clips	MIR0201	MIR0210
Height in U	41	46
Colour	RAL9011	RAL9011

1. Housing 1.4 Integration rack



MIR208010-01CB

Integration rack

- flexible, heavy-duty 19-inch interior
- extremely suited for use as a (high-density) server rack
- easily connected to Minkels VariCondition row-based cooling
- optimised airflows

- **Static load: 1500 kg**
- **Dynamic load: 1000 kg**



RAL 9011

Open loop	MIR208010-01CB	MIR208010-02CB	MIR208012-01CB		MIR208012-02CB
Closed loop				MIR208012-03CB	
Height in U	41	41	41	41	41
Height in mm	2000	2000	2000	2000	2000
Width in mm	800	800	800	800	800
Depth in mm	1000	1000	1200	1200	1200
Front door	80% perforated	80% perforated	80% perforated	Glass door	80% perforated
Rear door	80% perforated	80% perforated	80% perforated	Glass door	80% perforated
19" - dist. front (mm)	62,5	150	62,5	250	150
Security	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock
Roof layout	1 cable entry brush set	1 cable entry brush set	1 cable entry brush set	1 cable entry brush set	1 cable entry brush set
19-inch profiles	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs

Open loop	MIR228010-01CB	MIR228010-02CB	MIR228012-01CB		MIR228012-02CB
Closed loop				MIR228012-03CB	
Height in U	46	46	46	46	46
Height in mm	2200	2200	2200	2200	2200
Width in mm	800	800	800	800	800
Depth in mm	1000	1000	1200	1200	1200
Front door	80% perforated	80% perforated	80% perforated	Glass door	80% perforated
Rear door	80% perforated	80% perforated	80% perforated	Glass door	80% perforated
19" - dist. front (mm)	62,5	150	62,5	250	150
Security	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock	Fix Easy 2-point swivel handle with EK-333 cylinder lock
Roof layout	1 cable entry brush set	1 cable entry brush set	1 cable entry brush set	1 cable entry brush set	1 cable entry brush set
19-inch profiles	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs

MECHANICAL accessories

Shelves

- Variable shelves page 27
- Variable shelves 100 kg page 27
- Cantilever shelves page 28
- Minkels Fix Easy shelves page 28
- Telescopic shelves page 29



Top

- Insert modules page 24

Side

- Side panels page 21
- Partition panel page 22
- Plinth, 25 mm, side page 23



Other accessories

- Earth rails pag. 24
- Assembly brackets pag. 25
- Corner guide rails pag. 25
- Fluorescent lighting sets pag. 25
- Door switch pag. 25
- Baying kit pag. 29
- Number strips pag. 30
- Cage nuts pag. 30
- Decorative screws pag. 30
- Cable entry panel pag. 30

Bottom

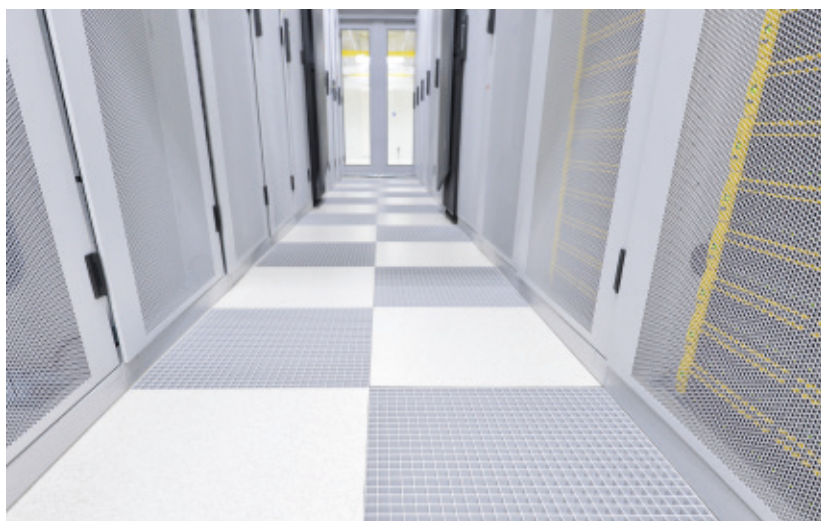
- Plinth, 25 mm, front/back page 22
- Adjustable feet page 23
- Castors page 23
- Anchoring set page 24
- Insert modules page 24

Front and back

- Expansion set page 22

1. Housing 1.5 Mechanical accessories

Minkels offers a wide variety of accessories which will make your rack complete, such as for instance various types of shelves, plinths, adjustable feet and more. A list of the accessories which are available in Minkels' standard product range is provided below. If the accessory you are looking for is not among them, don't hesitate to contact us and we will be happy to help you. You can find the contact details on the back side of this brochure.



Side panels

The side panels can be detached quickly and easily using locking clips. They can be delivered entirely blank. A side panel must always be combined with plinths (see page 23).



Depth in mm	RAL 7047			RAL 9011		
	Height in U			Height in U		
	41	46	50	41	46	50
800	MSP0106	MSP0107		MSP0106B	MSP0107B	
1000	MSP0306	MSP0307	MSP0308	MSP0306B	MSP0307B	MSP0308B
1200	MSP0406	MSP0407	MSP0408	MSP0406B	MSP0407B	MSP0408B

Delivery consists of: 1 panel, 4 square locks, 6 mm

1. Housing 1.5 Mechanical accessories



Partition

There are two types of partition panels: ones with and without cable entry rings. The holes for cables to pass through are 60 mm and they have rubber cable entry rings. The partitions can be attached using 6 screws. No side plinth is needed when fitting the partition panel.

Material: Sheet steel
Finishing: Sendzimir

Depth	1000		1200	
	Without cable entry holes	With cable entry holes	Without cable entry holes	With cable entry holes
41	MTP0306	MTP1306	MTP0406	MTP1406
46	MTP0307	MTP1307	MTP0407	MTP1407
50	MTP0308	MTP1308	MTP0408	MTP1408

Delivery consists of: 1 partition panel incl. fasteners



Expansion sets

This expansion set makes extending the depth of your (existing) rack possible. The set is easy to fit and adds 100 mm in depth. This set can be fitted to either the front or the back. Any existing door can be reused with this expansion set. Connecting multiple expansion sets is possible. It is also possible to place 19-inch profiles in the expansion set. These sets can be used with a 25 mm or 100 mm pedestal.

The benefit for you: all the equipment and cabling can remain intact and deeper equipment can be installed in.

Max. load: 425 kg

RAL 7047	VMF208010	VMF226010	VMF228010
Rack height in U	41	46	46
Rack width in mm	800	600	800

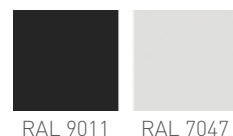
Delivery consists of: 1 expansion set incl. fasteners and assembly guide



Plinth for front/back, 25 mm

These plinths are available as blanks. The plinth is attached to the frame using a handy click-fit system.

Width in mm	RAL 7047		RAL 9011	
	600	800	600	800
	MSM1101	MSM1201	MSM1101B	MSM1201B



Delivery consists of: 1 plinth

1. Housing 1.5 Mechanical accessories

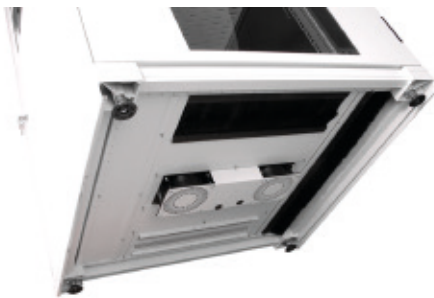


Plinth for sides, 25 mm

These plinths are only available as blanks. They cover the adjustable feet as well as supporting the side panel. The plinths can be attached to the frame using screws.

Depth in mm	RAL 7047			RAL 9011		
	800	1000	1200	800	1000	1200
	MSM1203	MSM1403	MSM1503	MSM1203B	MSM1403B	MSM1503B

Delivery consists of: 1 plinth incl. fastenings



Adjustable feet

The adjustable feet are needed for positioning the rack horizontally. The maximum load with 4 feet is 1000 kg and with 6 feet it is 1500 kg.

	MSM1001	MSM1002
Max. load in kg	1000	+500
Height	25	25
Number of pcs	4	2 (extra)

Delivery consists of: Adjustable feet incl. fastenings



Castors

Castors and transport castors

Castors and transport castors provide you the option of moving your rack more often, more quickly and more easily. The transport castors are, if desired, easy to remove from the rack and are reusable. The maximum load is given per set (of 4 wheels).

Casing material: Steel
Wheel material: Plastic

Castors	MSM3002
Max. load in kg	400
Built-on height in mm	100
Number of pcs	4

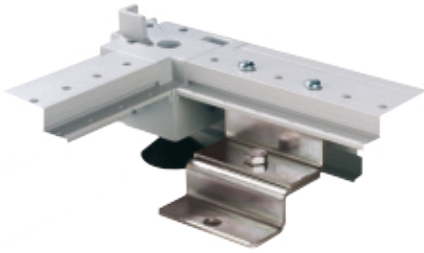


Transport castors

Transport castors	MSM3010
Max. load in kg	400
Built-on height in mm	130
Number of pcs	4

Delivery consists of: 4 wheels incl. fastenings

1. Housing 1.5 Mechanical accessories



Anchoring set

This set can be attached to the frame. It can be anchored to the floor by a bolt. Choose a suitable bolt, depending on your type of floor. In the case of a computer floor, we recommend direct attachment to the underlying floor using a threaded rod (not supplied).

	MSM4100
Pedestal height in mm	25

Delivery consists of: 2 Z-profiles with integrated nuts incl. fastenings



Insert modules

The roof and/or floor plate of the rack have cut-aways that can be filled using various inserts. Depending on your situation, you can choose between a blank cover plate or cable entry brushes.

Covering plate RAL 7047	MBM1001
Covering plate RAL 9011	MBM1001B
Format	153 x 427 mm

Cable entry brushes (set)	MBM1003
Max. cross-section	405 x 115 mm

Delivery consists of: Single pieces incl. fastenings (if applicable)



RAL 9011 RAL 7047

Triple fan unit with IEC connectors

The triple fan unit allows you to cool the rack. The flow with no load is 480 m³/h. Under normal loads it will be over 300 m³/h. The connection is made using IEC-320 C13 connectors. The fan units can be combined together using a cable with IEC-320 C13 / C14 connectors. As an additional option, this fan unit can be switched automatically using the MCSTF01 thermostat (page 52).

RAL 7047	MCS1004	
RAL 9011		MCS1004B
Flow under normal load	310 m ³ /h	310 m ³ /h

Delivery consists of: 1 fan unit, 1 power cable, 1 extender cable incl. fastenings



Earth rails

The copper earth rail ensures additional earthing of the rack. The earth rail is 20x5 mm and it has a wristband connector. It can be fitted vertically in the housing onto the frame, onto the 19-inch profile or onto the front-to-back beam elements.

	MER0106	MER0107
Rack height in U	41	46
Material	copper	copper

Delivery consists of: 1 rail, 1 wristband connector, 1 earthing cable, incl. fastenings and assembly guide

1. Housing 1.5 Mechanical accessories

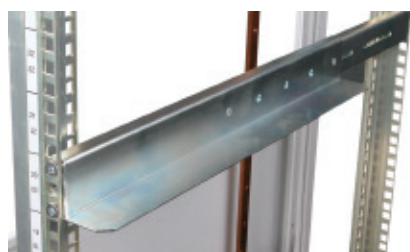


Universal assembly brackets

The universal assembly bracket can be used e.g. for fitting various accessories and PDUs. These brackets can be used in numerous places on the rack.

	MCE0410
Finishing	Galvanised

Delivery consists of: Set of 4 brackets incl. fasteners



Corner guide rails

A set of 2 variable corner guide rails with a load-bearing edge of 40 mm. The corner guide rails support the server and network equipment.

Item no.	MPR0311	MPR0312	MPR0313
Built-in depth in mm	300 - 450	450 - 750	740 - 1050
Material	Sheet steel	Sheet steel	Sheet steel
Finishing	Galvanised	Galvanised	Galvanised
Max. load in kg	100	100	100

Delivery consists of: 1 left and 1 right corner guide incl. fastenings



Fluorescent light sets

The fluorescent lighting set provides improved visibility within your data centre or server room. The set is easily attached to the 19-inch profiles or to the underside of the top window.

	MLS0001
With socket	yes
Dimensions	483 x 41 mm
Wattage	14
Voltage	230 VAC
Approval	CE - ENEC - TÜV

Delivery consists of: 1 fluorescent lighting set, 1 assembly bracket, incl. fastenings



Door switch

The door switch can be combined with the lighting set mentioned above. Switches on/off as the door is opened/closed. The plug can be connected directly to the lighting set.

	MLS0005
Door switch	MLS0005

Delivery consists of: 1 switch with cable, 1 assembly bracket, incl. fastenings

How do I choose the right shelf for a rack?

The step-by-step plan below will help you choose the right items.

Should the shelf be supported by four 19-inch profiles?

→ No →

Cantilever shelves can be used. Be aware of the limited depth (max. 350 mm) and maximum load (12 kg). Cantilever shelves can also be used in a number of wall housings. Using cantilever shelves requires 2U rack height.

→ Yes →

Four-point shelves can be used. You can choose between the following types:

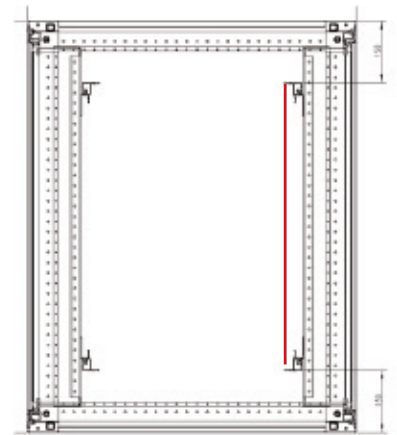
- Variable shelves – load capacity 40, 50 and 100 kg
- Telescopic shelves – load capacity 50 and 75 kg

FOUR-POINT SHELVES

After selecting the type of shelf, the correct depth has to be determined. This is because all four-point shelves have a minimum and maximum built-in depth. This does not depend on the external dimensions of the rack.

Example: The drawing on the right shows an example situation. The rack is 1000 mm deep. The front 19-inch profiles are 150 mm from the front and the rear ones are 150 mm from the back of the rack. The distance between the 19-inch profiles is therefore $1000 - 150 - 150 = 700$ mm. The built-in shelf depth is equal to that separation, i.e. 700 mm.

The image below shows the row from which you can derive the built-in depth of the shelf. In a number of cases, more than one shelf may be used. The table below shows that a built-in depth of 450 mm allows either item MPL0011 or item MPL0012 to be used. The difference between these shelves is their physical dimensions (the depth). The MPL0011 is 350 mm deep and the MPL0012 is 500 mm. The usable area therefore varies depending on the shelf used.



	MPL0011	MPL0012	MPL0013
Depth in mm	350	500	700
Built-in depth in mm	250 - 500	400 - 650	600 - 850
Max. load in kg	50	50	40
Usable surface area	447 x 350	447 x 500	447 x 700

The step-by-step plan above helps you select the correct shelf. If you are in need of assistance despite this plan, feel free to contact our sales department.

1. Housing 1.5 Mechanical accessories



Variable shelves

A variable perforated shelf. This means is that the depth of the shelf does not have to be the same as the distance between the front and back 19-inch profiles. The shelf is attached to the front and back 19-inch profiles. The maximum load noted in the table applies when the weight is evenly distributed.

	MPL0011	MPL0012	MPL0013
Depth in mm	350	500	700
Built-in depth in mm	250 - 500	400 - 650	600 - 850
Max. load in kg	50	50	40
Usable surface area	447 x 350	447 x 500	447 x 700

Delivery consists of:

1 shelf, 2 guides, incl. fixing materials

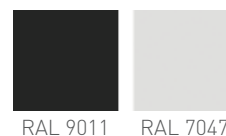


Variable shelves 100 kg

A variable perforated shelf with a maximum load of 100 kg. The variable attachment means that the depth of the shelf does not have to be the same as the distance between the front and back 19-inch profiles. The shelf is attached to the front and back 19-inch profiles. The maximum load applies when the weight is evenly distributed.

Material: Steel
Finishing: Powder coating

RAL 7047	MPL0014	MPL0015
RAL 9011	MPL0014B	MPL0015B
Depth in mm	700	800
Built-in depth in mm	600 - 850	700 - 950
Built-in height	25	25
Max. load in kg	100	100

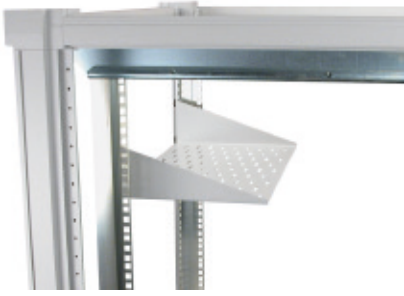


Delivery consists of:

1 shelf, 2 guides, incl. fixing materials

If you would like more information or would like to place an order, please contact us and we will be happy to help you. You can find the contact details on the back side of this brochure.

1. Housing 1.5 Mechanical accessories



Cantilever shelves

The cantilever shelf is attached to the front and back 19-inch profiles. The shelf is perforated. The maximum load applies when the weight is evenly distributed.

Material: Steel
Finishing: Powder coating

RAL 7047	MPL0311	MPL0312
RAL 9011		MPL0312B
Description	Cantilever shelf 2 U	Cantilever shelf 2 U
Depth in mm	250	350
Rack height unit (U)	2	2
Max. load in kg	12	12



Delivery consists of:
1 cantilever shelf incl. fastenings



Minkels Fix Easy shelves

The built-in depth of the shelf is variable and depends on the separation between the 19-inch profiles. When this shelf was designed, the emphasis was on the ease of installation. This shelf was designed with a specific emphasis on ease of installation. Special plastic clips are used for fixing the shelf onto the 19-inch profiles. You do not need any tools for the installation!

Separate sets of 4 fixing clips can be ordered under item number MFE0020.

The maximum load naturally only applies for a maximum slide-out length of 150 mm.

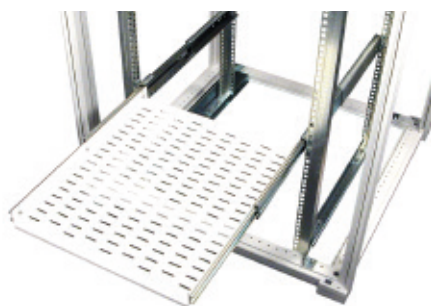
Shelves with depths of 650 mm and more can also be delivered in colour RAL 9011.

RAL 7047	MFE0001	MFE0003	MFE0004
RAL 9011		MFE0003B	MFE0004B
Depth in mm	250	500	650
Built-in depth in mm	250 - 400	500 - 650	650 - 800
Max. load in kg	50	50	40
Usable area in mm	447 x 250	447 x 500	447 x 650



Delivery consists of:
1 shelf, 2 guides, 1 set of 4 fixing clips

1. Housing 1.5 Mechanical accessories



Telescopic shelves

The telescopic perforated shelf is fitted between the front and back 19-inch profiles. Because the shelf can be slid in and out as a whole, you can easily pull your equipment out towards you. The maximum load given in the table applies when the weight is evenly distributed.

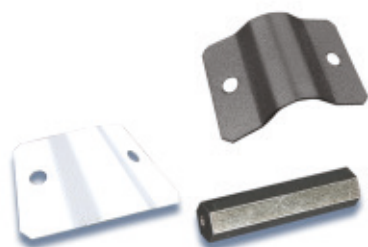
Space to build in: 55 mm
Material: Steel
Finishing: Powder coating
Colour: RAL 7047

	MPL0112	MPL0113
Depth in mm	500	700
Built-in depth in mm	400 - 700	600 - 900
Max. load in kg	75	50
Usable area in mm	415 x 500	415 x 700
Length of sliding part	500	700

Delivery consists of:

1 telescopic shelf incl. guides and fastenings

Baying kits



Baying kits are needed to connect racks together. Various combinations are available of both internal connector tubes and external connector plates. The external connector plates can be screwed onto the outsides of the structural uprights and are invisible when the door is closed. Make at least 2 connections in the front and back planes. You need 2 sets for 25U or more.

	RAL 7047	MFM0055	MFM0056
	RAL 9011	MFM0055B	MFM0056B
Set of internal and external baying kits	set of 6 pcs		
External baying kit			set of 6 pcs



Delivery consists of:

Including fastening materials

1. Housing 1.5 Mechanical accessories



Numbering strips

The numbering strip is used to indicate the height unit numbers. It is self-adhesive. If you have a rack that is lower than 46 U, you can cut the numbering strip to size.

	MPR0060
Description	Numbering strip for 19-inch 46U profile

Delivery consists of: 1 numbering strip



Cage nuts

The cage nuts allow for a simple installation of your equipment. Combined with decorative screws and plastic washers, cage nuts are easy to fit into the pattern of holes in the 19-inch profiles.

Diameter M5	MFM0001	MFM0002		
Diameter M6			MFM0003	MFM0004
Cage nuts	M5 - (20 pcs)	M5 - (100 pcs)	M6 - (20 pcs)	M6 - (100 pcs)



Screws with finishing washers

These screws have a cross head and a plastic washer. They are used (screw and washer) together with cage nuts for assembling the 19-inch profiles.

Diameter M5 X 16	MFM0010	MFM0011		
Diameter M6 X 16			MFM0012	MFM0013
Decorative screws with black washer	M5 - (20 pcs)	M5 - (100 pcs)	M6 - (20 pcs)	M6 - (100 pcs)

Cable entry panel with brush, 19 inch

Cable entry brush - 19 inch x 1U (w x h). Supplied with permanent screws and separate cage nuts. Universal fitting for all floor and wall enclosure elements.

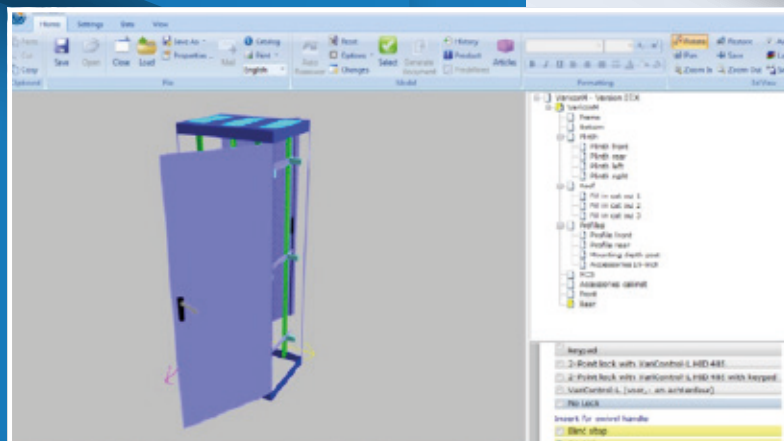


	MCM0031B	MCM0032B
Height unit	1	2
Width	19-inch	19-inch
Colour	RAL 9005	RAL 9005

Delivery consists of: 1 cable entry panel with brush, incl. fastenings

THE VIRTUALLY INFINITE POSSIBILITIES OF MASS CUSTOMISATION

A standard data centre that appears specially developed for you? That's mass customisation!



Infinite combinations

Mass customisation gives you the best of both mass production and tailor-made solutions. We are not talking about complete customisation in this case, but rather about an enormous range of components which can be combined in an almost infinite number of ways. Minkels is one of the few data centre suppliers which are able to offer genuine mass customization. After all, there are quite a lot of nuts and bolts to that type of strategy...

If you would like to know more about mass customisation, have a look at our brochure: www.minkels.com/downloads

Or contact us – we'll be pleased to help! You can find the contact details on the back side of this brochure

Solutions for **CABLE MANAGEMENT**



Structured cabling is important for the reliability and optimum performance of your data centre or server room. Flexibility and accessibility for trouble-shooting or during expansions are essential as well.

RELIABILITY

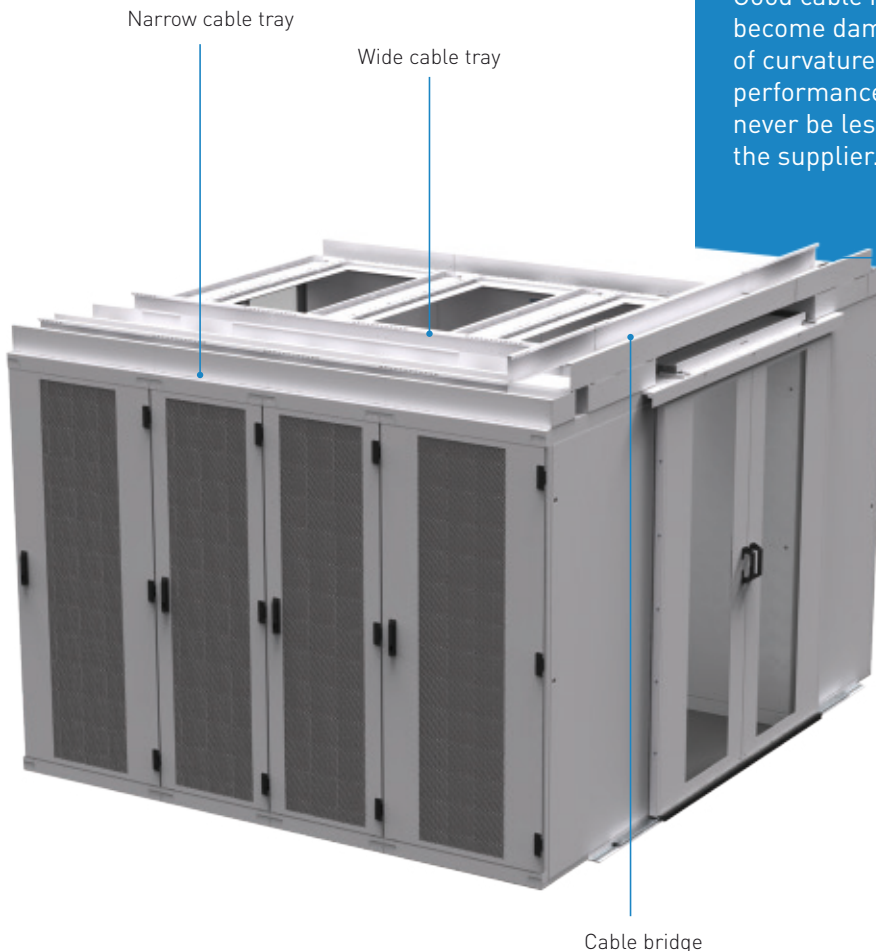
Good cable management ensures that the equipment's air intake points are kept as clear as possible. This allows sufficient air to pass through the equipment in order to cool them adequately. Proper cooling avoids equipment failures and results in longer lifespans.

OPTIMUM PERFORMANCE

Good cable management ensures that cables do not become damaged, do not break and have the right radius of curvature. The wrong radius of curvature reduces the performance of the cable. The radius of curvature must never be less than what has been recommended by the supplier.

FLEXIBILITY AND ACCESSIBILITY

When cabling is applied properly, it has a neat and structured appearance. This means that cables can be moved or added easily.



1. Housing 1.6 Cable management



Cable trays

Minkels cable trays are available to allow you to optimise the way cables are led to the rack. Cable trays are flexible, modular and simple to install. They can be integrated seamlessly into the rack. Because this cabling system is attached directly to the racks, it is independent of its surroundings in which it is put to use. As the data centre or server room grows, the cable management can easily grow with it, without having to make modifications to the structure of the building, such as anchoring to the ceiling.

Two types of cable trays are available: a narrow cable tray at the back of the rack or a wide cable tray along the middle of the rack.

Narrow cable tray

The narrow cable tray is placed by the rack's rear roof cable entry points and it can be used for small amounts of cabling, e.g. connecting up servers.

Wide cable tray

The wide cable tray is placed by the central roof entry point and is suitable for guiding large amounts of cabling into the rack on the left and/or right, as is usual for patch racks. The wide cable tray has a partition so that e.g. fibre-optic and copper cables can be kept separate. This partition is movable.

For large racks, both systems can be combined to achieve a triple compartmentalisation – the narrow cable tray plus the wide one with its separating partition. This approach allows the fibre-optic, copper data and power cables to be sufficiently separated. The cable trays have waterfalls to create the correct radius of curvature for the cables. This makes it easier to get the cables in place and supports the cable structure at the side of the rack, so that the equipment can still be accessed easily.

Material: Steel

Finishing: Powder coating

Height: 120 mm

Depth of narrow cable tray: 200 mm

Depth of wide cable tray: 600 mm

Width of the rack in mm	RAL7047		RAL9011	
	Narrow cable tray	Wide cable tray	Narrow cable tray	Wide cable tray
600	MCM0300	MCM0302	MCM0300B	MCM0302B
800	MCM0301	MCM0303	MCM0301B	MCM0303B
1000	MCM0326	MCM0327	MCM0326B	MCM0327B

Width of the rack in mm	RAL7047	RAL9011
	Partition	Partition
600	MCM0331	MCM0331B
800	MCM0332	MCM0332B
1000	MCM0333	MCM0333B

Delivery consists of: 1 narrow cable tray incl. fastenings or 1 wide cable tray incl. fastenings and internal partition

1. Housing 1.6 Cable management



Cable trays for H2O/DX cooling and Archimod UPS

If the H2O, DX and Archimod UPS are integrated into a row of racks, the cable trays can be laid across the top of the cooling or UPS. The cable trays are available in two versions, a narrow version and a wide version.

Material: Steel
Finishing: Powder coating
Height: 120 mm
Depth of narrow cable tray: 200 mm
Depth of wide cable tray: 600 mm



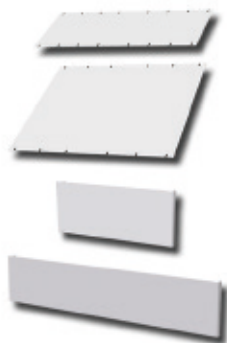
Width of H2O - DX - Archimod UPS in mm	RAL7047		RAL9011	
	Narrow cable tray	Wide cable tray	Narrow cable tray	Wide cable tray
300	MCM0316	MCM0317	MCM0316B	MCM0317B
600	MCM0500	MCM0502	MCM0500B	MCM0502B
800	MCM0501	MCM0503	MCM0501B	MCM0503B

Width of H2O - DX - Archimod UPS in mm	RAL7047	RAL9011
	Partition	Partition
300	MCM0414	MCM0414B
600	MCM0504	MCM0504B
800	MCM0505	MCM0505B

Delivery consists of: 1 narrow cable tray incl. fastenings or 1 wide cable tray incl. fastenings and internal partition



1. Housing 1.6 Cable management



Covers and end plates for cable trays

Covers can be fitted to cable trays. They can be assembled directly onto the cable trays. The covers keep content safely separated and provide protection against dust. The cable trays can also be closed off at the end of the row using end plates. The covers and end plates do not require any cutting to size and are available in the colours RAL 7047 and RAL 9011.

Material: Steel
Finishing: Powder coating
Depth of narrow cable tray: 200 mm
Depth of wide cable tray: 600 mm



With of the rack in mm	RAL7047		RAL9011	
	Narrow cable tray cover	Wide cable tray cover	Narrow cable tray cover	Wide cable tray cover
300	MCM0318	MCM0319	MCM0318B	MCM0319B
600	MCM0310	MCM0312	MCM0310B	MCM0312B
800	MCM0311	MCM0313	MCM0311B	MCM0313B
1000	MCM0328	MCM0329	MCM0328B	MCM0329B

With of the rack in mm	RAL7047		RAL9011	
	Narrow end plate	Wide end plate	Narrow end plate	Wide end plate
600, 800 and 1000 mm	MCM0320	MCM0321	MCM0320B	MCM0321B

Delivery consists of: incl. assembly materials

1. Housing 1.6 Cable management



Cable bridges

Where a hot or cold corridor has to be crossed, a cable bridge can be used. The cable bridge is suitable for a wide or narrow cable tray. It can also be combined with aisle containment. The cable bridge is available in three types, for bridging (cable tray to cable tray) 990 mm to 1750 mm, 1235 mm to 2000 mm and 2000 mm to 3700 mm. The bridges use a sliding system so that the distance between the cable trays can be bridged at any spot without any sawing being necessary. The cable tray can be installed at various distances along the depth of the corridor. It can be used for instance to save on the number of branches in the main supply or for intra-connectivity within the aisle containment. You can choose to use several bridges depending on the capacity required, or to keep various cables separate.



Material: Steel
Finishing: Powder coating
Height: 120 mm
Width: 150 mm

Usable length in mm	990 to 1750 mm	1235 to 2000 mm	2000 to 3700 mm
RAL 7047	MCM0306	MCM0307	MCM0308
RAL 9011	MCM0306B	MCM0307B	MCM0308B



Delivery consists of: incl. assembly materials

Covers for cable bridges

Covers can be fitted to the cable bridges. They are assembled directly onto the cable bridges. The covers keep content safely separated and provide protection against dust. It is possible to have the covers overlap so that multiple covers can be used to ensure proper coverage of the cable bridge.



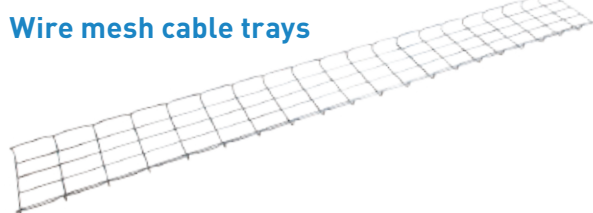
Material: Steel
Finishing: Powder coating
Capacity: 150 mm

Usable width in mm	1030	1700
RAL 7047	MCM0323	MCM0322
RAL 9011	MCM0323B	MCM0322B



Delivery consists of: incl. assembly materials

1. Housing 1.6 Cable management



Wire mesh cable trays

The wire mesh tray offers various possibilities for vertical cable management within the rack. Cables can be attached to the wire mesh over the entire height of the rack. The wire mesh tray can be fitted to the upper and lower frames and can be used in both 600 mm and 800 mm racks.

Height: 30 mm
Material: Steel
Finishing: Galvanised

Height in U	41	46	50
Width 200 mm	MCM0146	MCM0147	MCM0148
Width 300 mm	MCM0156	MCM0157	MCM0158

Delivery consists of: 1 wire mesh cable tray including fastenings

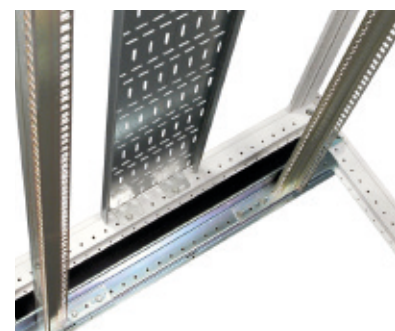


Cable trunking

Cable trunking is available in various heights. It is suitable for vertical cable management. Cables can be attached to the trunking using tie-wraps and/or Velcro (page 40). The trunking can easily be fitted from the inside (left or right) to the upper and lower frame.

Material: Sheet steel
Finishing: Galvanised

Height in U	Width 200 mm	Width 300 mm
25	MCM0124	MCM0134
41	MCM0126	MCM0136
46	MCM0127	MCM0137
50	MCM0128	MCM0138



Delivery consists of: 1 cable trunking element incl. fasteners



Fibre-optic cable guides

Cable guides for fibre-optic and UTP cabling with a controlled radius and strain relief.

Width in mm	86
Left	MCM0023
Right	MCM0024

Delivery consists of: 1 fibre-optic cable guide incl. fasteners

1. Housing 1.6 Cable management



Assembly profile incl. high-volume cable guide on 19-inch profiles

The high-volume cable guides are ideal for rapid and effective cabling. This high-volume solution allows you to guide more cables than normal cable guides do.

Material: Polyamide
Colour: Black

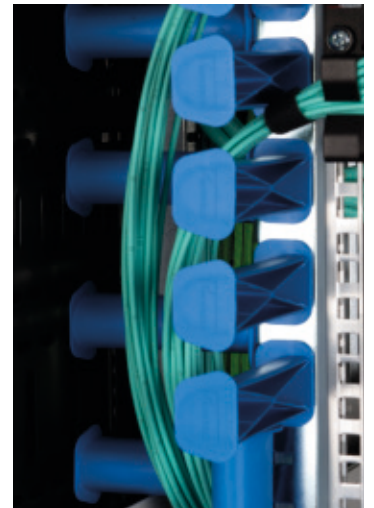
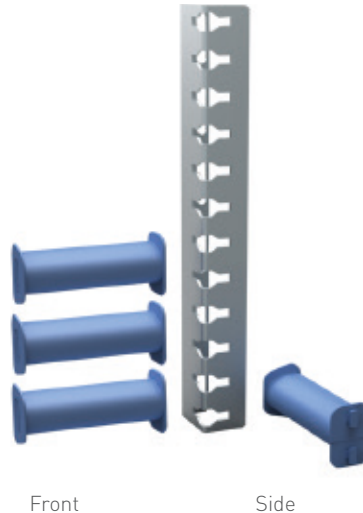
3U module	MCM2021	41U assembly profile	MCM2026
6U module	MCM2022	46U assembly profile	MCM2027
		50U assembly profile	MCM2028

Delivery consists of: incl. assembly materials

Assembly profile incl. cable guides

The cable guides are ideal for achieving clearly ordered and arranged cabling. A cable guide is 87 mm long. It can be fitted and removed without machine tools. Cables can be laid per 1U. The radius is particularly suitable for fibre-optic cables. There is room for 24 cables per 1U. The assembly profile incl. cable guides cannot be used in a rack that is 600 mm wide.

Halogen-free
Fire class: UL94-V0
Material: Polyamide
Colour: RAL 5015

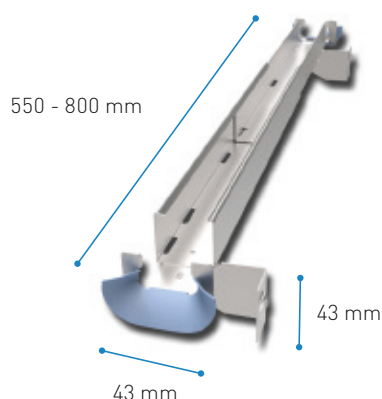


Height in U	6 cable guides front	10 cable guides front	38 cable guides front	43 cable guides front	47 cable guides front	76 cable guides front and side	86 cable guides front and side	94 cable guides front and side
6	MCM2001							
25	MCM2014							
41	MCM2016		MCM2003		MCM2004			
46	MCM2017		MCM2005			MCM2006		
50	MCM2018		MCM2007			MCM2008		

Delivery consists of: assembly profile, cable guides incl. fasteners

20 cable guides (can be ordered separately)	MCM2009
--	---------

1. Housing 1.6 Cable management



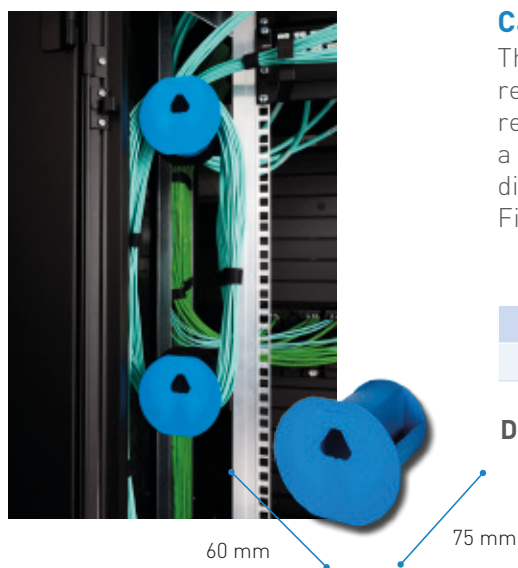
Cable ducting, front to back, sliding

A telescopic cable duct can be used for guiding cables from the front to the back. The ducting can be attached to the side of the 19-inch profile. Cable conduit foam can be used together with side sealing plates to optimise the airflow (MCS5004 RAL 7047, MCS5004B RAL 9011, see page 46 for more information). The cable ducting can be adjusted from 550 to 800 mm.

Cable duct material: Sheet metal
 Finish: Galvanised
 Cable guide material: Plastic (noryl; halogen-free)
 Colour: Blue

	MCM0028
Variable depth in mm	550 - 800

Delivery consists of: Cable duct including fitting materials



Cable reels

The cable reels are guaranteed to make the cabling as easy as possible. A cable reel is 75 mm long. It is possible to click the cable reels together (length of 2 reels: 150 mm / length of 3 reels: 225 mm). 3 cable reels fitted together have a maximum load of 15 kg when the weight is evenly distributed. The 60 mm diameter is particularly suitable for fibre-optic cables.
 Fire class: UL94-V0

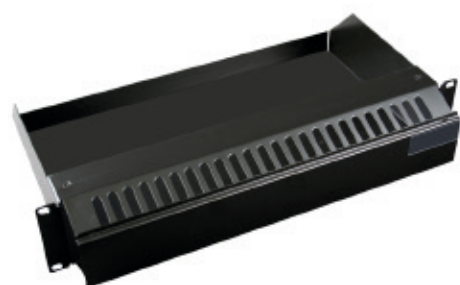
RAL 5015	MCM2011
Material	Polyamide

Delivery consists of: 1 cable reel

Cable storage cassette

A cable storage cassette for effective and user-friendly cable management.

Material: Sheet steel
 Colour: RAL 9011



RAL 9011	MCM1111
Height unit	2
Material	Sheet steel



Delivery consists of: 1 cable storage cassette incl. assembly materials

1. Housing 1.6 Cable management



Velcro

Velcro is very useful for attaching cables to a cable trunking element. Using Velcro avoids sharp bends in your cables (copper or fibre-optic).

Roll of Velcro	FDH1610
Length (m)	10
Width in mm	16

Delivery consists of: 10 metres of Velcro



Plastic cable clip

The plastic cable clip is an 'eye' which can be used for cable management. It can be attached without tools to the standard cable trunking (page 37). Set of 10

Material: Polyamide
Fire class: UL94-V0
Width: 40 mm
Depth: 78 mm



Plastic cable clips	MCM0014
set	10 pcs

Delivery consists of: 10 plastic cable clips



Metal cable comb with 4 teeth

The cable comb lets you arrange and guide network or patch cabling horizontally. The comb consists of two identical parts that are fitted one above the other on the 19-inch profiles as mirrors of each other.

Material: Metal
Finishing: Powder coating



RAL 7047	MCM0011	
RAL 9011		MSM0011B
Height	2 x 1/2 U	2 x 1/2 U



Delivery consists of: 1 cable comb incl. fastenings



Plastic cable comb with 5 teeth

The cable comb lets you arrange and guide network or patch cabling horizontally. The comb consists of two identical parts that are fitted one above the other on the 19-inch profiles as mirrors of each other. The plastic cable comb contains 5 plastic cable clip (MCM0014).

Material: Sheet steel
Colour: Black



RAL 9011

RAL 9011	MCM0013
Height	1 x 1 U

Delivery consists of: 1 cable comb incl. fastenings

1. Housing 1.6 Cable management



Horizontal cable clip

This cable clip is used for finishing the assembly of cable bundles. The cable clip can be fitted to the 19-inch profiles.

Width: 40 mm
Depth: 86 mm

Horizontal	MCM0002	MCM1002
U	1	1
Qty	1	100

Delivery consists of: incl. assembly materials



Vertical cable clip

This cable clip is used for finishing the assembly of cable bundles. The cable clip can be fitted to the 19-inch profiles.

Width: 35 mm
Depth: 64 mm

Vertical	MCM0001	MCM1001
Qty	1	100

Delivery consists of: incl. assembly materials



Vertical cable clip

This cable clip is used for finishing the assembly of cable bundles. The cable clip can be fitted to the 19-inch profiles.

Width: 110 mm
Depth: 154 mm

Fits on 19-inch profile	MCM0007	MCM1007
Qty	1	100

Delivery consists of: incl. assembly materials



MCM0002



MCM0001



MCM0007

1. Housing 1.6 Cable management



Vertical cable clip

This cable clip is used for finishing the assembly of cable bundles. The cable clip can be fitted to the frame uprights.

Width: 85 mm
Depth: 165 mm

Fits on the upright posts	MCM0008	MCM1008
Qty	1	100

Delivery consists of:
incl. fastening materials



Vertical cable clip

This cable clip is used for finishing the assembly of cable bundles. The cable clip can be fitted to the frame uprights.

Width: 130 mm
Depth: 120 mm

Fits on the upright posts	MCM0009	MCM1009
Qty	1	100

Delivery consists of:
incl. fastening materials



Vertical cable clip

This cable clip is used for finishing the assembly of cable bundles. The cable clip can be fitted to the frame uprights.

Width: 77 mm
Depth: 100 mm

Fits on the upright posts	MCM0010
Qty	1

Delivery consists of: incl. assembly materials

1. Housing 1.6 Cable management

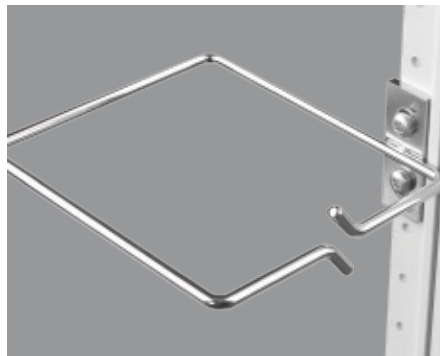


QUESTIONS ABOUT CABLE MANAGEMENT?

If you would like structured cabling in your data centre or server room, if you have questions about the subject or if you cannot find what you are looking for, please contact us and we will be happy to help you. You can find the contact details on the back side of this brochure.



MCM0008



MCM0009

AIRFLOW optimisation

Airflow management is the next step in energy efficiency for data centres and server rooms.



THE CORRECT AIRFLOW OPTIMISATION ACCESSORIES WILL CREATE AN ENERGY-EFFICIENT SOLUTION

Studies by Minkels have shown that using the right airflow optimisation accessories can result in massive reductions in energy consumption. Based on this research, Minkels has developed accessories that provide the concrete answers to specific airflow optimisation requirements. More information on this subject can be found in Minkels' white paper 04, 'Rack Airflow Optimisation', which is available through the Minkels website:

www.minkels.com/whitepapers



1. Housing 1.7 Airflow optimisation



Door seals - left or right

The rubber door seals can be used on both the left-hand and right-hand sides. The door seal will reduce penetration by dust, counteract incorrect airflows and mute noise.

	MFR0006	MFR0007
U	41	46
Material	Rubber	Rubber
Colour	Black	Black

Delivery consists of: 1 rubber profile, self-adhesive

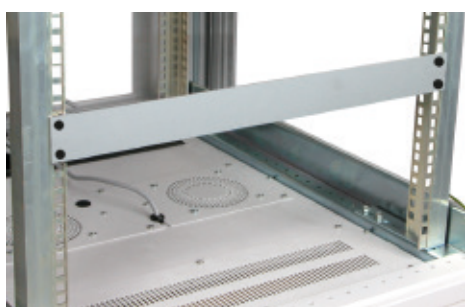


Sealing set

This sealing set is intended for sealing the gaps between the side plates of connected racks. Use of this set ensures that no cold air can leak through to the back of the rack. The sealing set is available in 46U and 50U. If you want to use this set for smaller racks, it can be cut to the appropriate size. The sealing set for side plates is made of fire-retardant foam (UL94). If you would like to have a 41U sealing set, you can order the 46U set and cut it to the desired height!

	MCS0011	MCS0012
U	41/46	50
Material	Rubber	Rubber
Colour	Grey	Grey

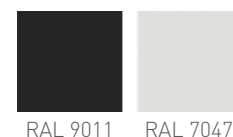
Delivery consists of: 1 vertical sealing strip, 1 horizontal sealing strip



Fix Easy front plate

The front plate is used for creating an airtight seal of the 19-inch surface. When this front plate was designed, the emphasis was on the ease of installation. The front plate can therefore be fitted in next to no time. A special plastic connector is used for fitting the front plate between the 19-inch profiles. You do not need any tools for the installation!

Material: Steel
Thickness: 1.0 mm
19-inch: Yes
Finishing: Powder coating



RAL 7047	MFE0101	MFE0102	MFE0103	MFE0104	MFE0105
RAL 9011	MFE0101B	MFE0102B	MFE0103B	MFE0104B	MFE0105B
Height in U	1	2	3	6	9
Qty	1	1	1	1	1

RAL 7047	MFE0111	MFE0112	MFE1120
RAL 9011	MFE0111B	MFE0112B	MFE1120B
Height in U	1	2	240
Qty	Set of 6	Set of 6	Mix

The mix consists of:
24 plates of 1U = 24U in total
24 plates of 2U = 48U in total
24 plates of 3U = 72U in total
16 plates of 6U = 96U in total

Delivery consists of: front plate incl. plastic connectors

1. Housing 1.7 Airflow optimisation



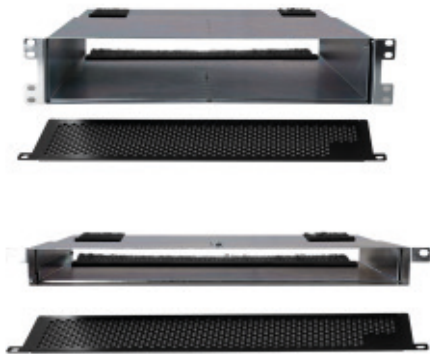
Plastic front plate

The plastic front plate is used for creating an airtight seal of the 19-inch surface. The front plates were specifically designed to make them as easy as possible to install and to provide an airtight 19-inch seal. The front plate can be fitted inbetween the 19-inch profiles easily. No fasteners are needed for this. Airtight accessories create energy savings because they prevent air leaks.

Material: ABS (UL94-V0)
Colour: RAL 9005

RAL 9005	MFE1105
Height in U	1
Qty	25

Delivery consists of: 25x 1U plastic front plates



Switching & routing air inlet duct

Minkels has developed an air inlet duct for the 1U and 2U converters. The equipment is installed at the back of the rack and takes its supply of cold air from the front of the rack (corridor). This means that the cables can remain at the back of the rack and the product can still receives enough cold air to keep it cool.

Installation in the rack is simple.

The 1U variant can be extended from 210 mm to 300 mm.

The 2U variant can be extended from 350 mm to 500 mm.

Air inlet duct	MRS0001	MRS0002
Height in U	1	2
Width	19-inch	19-inch
Variable depth	210 - 300 mm	350 - 500 mm

Delivery consists of: Air inlet duct including assembly materials

1. Housing 1.7 Airflow optimisation



Inserts in the side seal plates

The plates are fitted in the side sealing plates' 2U x 19 inch cut-aways and can be used for airtight cable entry (you can see some examples in the photos on page 44). The accessories which use foam are even more airtight. Airtight accessories create energy savings because they prevent air leaks. The airtight front panel can also be used for covering the cut-aways.



RAL 9011 RAL 7047

RAL 7047	MCS5001	MCS5002	MCS5004	MCS5005
RAL 9011	MCS5001B	MCS5002B	MCS5004B	MCS5005B
Height in U	2	2	2	2
Description	Front plate	Cable entry plate with brush	Cable entry plate with foam	1U cable entry plate with foam combined with 1U front plate

Delivery consists of: including fastenings



Cable entry plates between the 19-inch profiles

These cable entry plates are suitable for creating a cable entry point. The cable entry plates are fitted between the 19-inch profiles (you can see some examples in the photos on page 44). The types which use foam are particularly airtight. Airtight accessories yield energy savings because air leaks are prevented.



RAL 9011 RAL 7047

RAL 7047	MCS5006
RAL 9011	MCS5006B
Height in U	1

Delivery consists of: including fastenings



SECURITY of racks and aisle containment

IT infrastructures are vulnerable. Securing access to data and equipment therefore does not end at the walls of a data centre or server room. Security at the rack level is becoming increasingly important for organisations.

This emphasis of this catalogue in terms of security is on our standard locking systems. In addition to the standard locking options, Minkels offers a wide range of electronic locking systems.

ELECTRONIC LOCKING SYSTEMS

These security solutions involve not only cylinder locks on the racks, but also electronic security with pass code systems such as RFID technology for authorising and registering activities, so that a user can see afterwards who was at a certain rack and at what time they were there. Minkels offers a data centre security product line with three different solutions, varying in intelligence and fine-tuned to a broad spectrum of customer specific products.

HID-DIRECT AND HID-485

HID-Direct is very well suited for racks which are distributed over a larger area with connectivity via a single network. HID-485 is a smart and cost-effective solution for centralised data rooms, for environments

with a maximum of 32 handles that share a single gateway on the network.

BASIC

The Basic solution can be integrated into an existing building management or access control system. Basic will open a rack when given a signal by an authorised user via the host system. In addition, the Basic handle can also be coupled as a 'slave' to an HID handle. Depending on the access status of the HID handle, the Basic will automatically be opened or closed as well. Advantages of this master/slave combination are simplicity of the management and cabling, and cost savings.

More information about the Minkels electronic locking systems can be found in our mass customisation brochure: www.minkels.com/downloads. Or contact us for more information! You can find the contact details on the back side of this brochure.



1. Housing 1.8 Security



Locking systems

Locking systems for the front and back doors (without locking rods).

Swivel handle, Fix Easy, conversion set	MLK0011	
Swivel handle, Fix Easy, with number lock, conversion set		MLK0010
locking points	2 points	2 points
Height unit	25, 37, 41, 46 and 50	25, 37, 41, 46 and 50

Delivery consists of: single items incl. fitting materials



Inserts for swivel handles

There are two possibilities for filling in the swivel handles: a blank or a cylinder lock.

Blank	MLK9001
EK-333 cylinder lock	MLK9003

Delivery consists of: 1 lock and 2 keys where applicable, incl. fitting materials



Cylinder lock for front and side panels

The cylinder lock replaces the locking clip and it can be fitted to the rear and side panels. This adds extra security to prevent unauthorised access to the rack. The number of locks depends on the height of the panel. Above 37U, 4 locks are used. If the panel is less than 37U, 2 locks are used.

simple cylinder lock	MSP0199
-----------------------------	---------

Delivery consists of:

1 cylinder and 2 keys

WALL enclosures



MWE wall enclosure



Duopac stand-alone or wall enclosure



Tripac wall enclosure



The wall enclosure systems are constructed with an emphasis on flexibility and accessibility.

MWE

Minkels MWEs have eliminated awkward-to-use wall housings once and for all. These attractive and flexible housing elements have been specially developed to allow building-related IT networks to be installed and managed as quickly and efficiently as possible.

Unlike traditional wall housings, the MWE is not delivered in assembled form. A single fitter can install the MWE in very little time.

DUOPAC

The compact Duopac can be fixed to a wall, or it can be placed stand-alone. Its limited dimensions allow for the Duopac to fit easily on or under a desk.

The removable side panels make the Duopac extremely accessible, which is one of the reasons why this smart system is extremely well suited to e.g. housing smaller networks or decentralised network nodes.

TRIPAC

The Tripac wall enclosure is a carefully thought out, robust housing that offers optimum accessibility. The front door, the middle section and the wall attachment are in fact all hinged.

Tripac is a space-saving system which can be used multi-functionally, for instance for housing network components such as cabling, patch panels, hubs and switches. The default sealing standard for Tripac wall enclosures is IP-54.

1. Housing 1.9 Wall enclosures



MWE wall enclosure

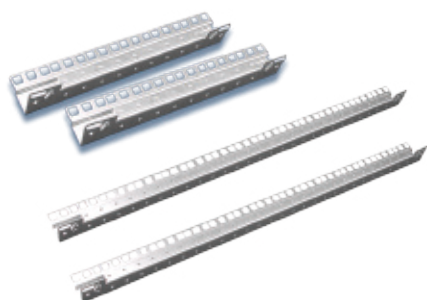
The basic frame consists of a wall element with an integrated strain relief profile, four bars running front to back, two cable entry plates (top and bottom) and a set (2 pcs) of 19-inch profiles. The depth of the 19-inch profiles can be adjusted in steps of 50 mm. The cable holes always fit because the installation engineer can change their size on the spot thanks to the handy bend-away fingers. The 19-inch profiles have a pattern of holes on the side to allow accessories to be fitted. The casing consists of two identical upper and lower panels with ventilation slots at the rear, two identical side panels and a Securit glass door with an EK-333 cylinder lock with a handle.

Width: 600 mm
 Colour: RAL 7047
 Finishing: Powder coating
 Max. load: 100 kg

Height in U and mm	Single items		
	Depth 425 mm	Depth 525 mm	Depth 625 mm
	Built-in depth: 0 - 370 mm	Built-in depth: 0 - 470 mm	Built-in depth: 0 - 570 mm
6U - 342 mm	MWE06425G	MWE06525G	-
9U - 476 mm	-	MWE09525G	MWE09625G
12U - 609 mm	-	MWE12525G	MWE12625G
15U - 742 mm	-	MWE15525G	MWE15625G
21U - 1009 mm	-	-	MWE21625G

Height in U and mm	Pallet	
	Depth 525 mm	Depth 625 mm
	Built-in depth: 0 - 470 mm	Built-in depth: 0 - 570 mm
6U - 342 mm	-	-
9U - 476 mm	MWP09525P (16 pcs)	MWP09625P (16 pcs)
12U - 609 mm	MWP12525G (16 pcs)	MWP12625G (16 pcs)
15U - 742 mm	MWP15525G (16 pcs)	-
21U - 1009 mm	-	MWP21625 (8 pcs)

Delivery consists of: 1 rear plate, 4 depthwise bars, 2 cable entry plates, 2 19-inch profiles, 2 roof and floor plates, 2 side panels, 1 glass door, 1 assembly set, incl. assembly guide



19-inch profiles for MWE wall enclosure

The flat profiles can be used when fitting shelves of equipment is desired (with attachments front and back). Delivered in sets of 2.

	MWEPR06	MWEPR09	MWEPR12	MWEPR15	MWEPR21
Height unit (U)	6	9	12	15	21

Delivery consists of: 2 profiles incl. assembly materials

1. Housing 1.9 Wall enclosures



Power strip for MWE wall enclosure

Can be ordered with German (SCHUKO) or French (UTE) style earth contacts. The power strip is delivered with fastening materials to allow it to be attached to the rear wall of the wall enclosure. The cord is 1.5 metres long.

	MWEPS01
Outlets	SCHUKO (6)
Plug	SCHUKO
Assembly	19 inch (1U)

Delivery consists of: 1 power strip, 2 attachment brackets, incl. assembly materials



MWE roof plate with integrated fan unit

This fan unit can be added as an option to generate a forced flow of cooling air through the MWE wall enclosure. To do that, the existing roof panel must be removed and replaced with this item. The MCSTF01 thermostat can be used in combination with this MWE roof plate.

	MWEFP525	MWEFP625
Depth in mm	525	625

Delivery consists of: 1 roof plate with 2 fan units, incl. assembly materials



Thermostat for MWE wall enclosure

The thermostat can be used together with the following fans and a roof plate:

- triple fan unit MCS1004(B), page 24.
- double fan unit TRI.VE.00.02, see page 55.
- MWE roof plate with integrated double fan unit, MWEFP525 and MWEFP625 – see page 52.

The thermostat ensures that the fan switches on at a temperature you have selected.

MCSTF01
Thermostat

Delivery consists of: 1 thermostat with cable

1. Housing 1.9 Wall enclosures



Cable entry strip for MWE wall enclosure

For dust-free cable entry, instead of the top and/or bottom cable entry plate. Suitable for MWE wall enclosure

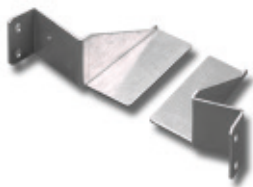


360 mm conduit	MWECB01
-----------------------	---------

Delivery consists of: 1 cable entry brush, incl. fastenings

MWE corner guide set

The corner guide set supports heavy 19-inch equipment. The corners are fitted to the sides of the 19-inch profiles and therefore do not use up any height units in the front plane. Suitable for MWE wall enclosure.



Material: Sheet steel
Colour: Sendzimir

	MWECS01
Height unit (U)	1
Max. load	50

Delivery consists of: 1 corner guide support (left), 1 corner guide support (right), incl. fastening materials

MPL0011 (page 27), MPL0311 and MPL0312 (page 28) shelves can be used in all wall enclosure elements. For more information, please refer to the corresponding pages in this standard product catalogue.



1. Housing 1.9 Wall enclosures



Duopac stand-alone or wall enclosure

The compact Duopac can be fixed to a wall, or it can be placed stand-alone. Its limited dimensions allow for the Duopac to fit easily on or under a desk. The removable side panels make the Duopac extremely accessible, which is one of the reasons why this smart system is extremely well suited to e.g. housing smaller networks or decentralised network nodes.

The Duopac is delivered in standard dimensions with two 19-inch profiles that can be adjusted to any desired depth. The casing is fitted with rubber studs on the underside to ensure its stability and that it does not scratch the surface on which it is placed. The roof has ventilation slots that provide natural ventilation. The side walls are fitted with a quick-click connector so that they can be removed and replaced quickly. Assembly materials for fixing to a wall are not included.

Colour: RAL 7047

Description: Door with smoked glass

Finishing: Powder coating

	DUO.034515	DUO.064515	DUO.094515
Height unit (U)	3	6	9
Height in mm	207	343	516
Width in mm	530	530	530
Depth in mm	450	450	450
Weight in kg	11	14	17

Delivery consists of: Complete assembled housing, 2 keys

Insert module (floor/roof) for Duopac and Tripac wall enclosure

These insert modules can be fitted in either the Duopac or the Tripac wall enclosure. Both modules can be used in the floor and the roof. Note that the Tripac wall enclosure then no longer complies with the IP-54 sealing figures.



	TRI.KA.00.01
Max. cross-section in mm	360 x 50

Delivery consists of: Single items, incl. fastenings

A set of adjustable feet allow for easy horizontal alignment of your Duopac. MSM1001 adjustable feet can be found on page 23 of this standard product catalogue



1. Housing 1.9 Wall enclosures



Tripac wall enclosure

The Tripac wall enclosure is a carefully thought out, robust housing which offers optimum accessibility. The front door, the middle section and the wall attachment are in fact all hinged. Tripac is a space-saving system that can be used multi-functionally, for instance for housing network components such as cabling, patch panels, hubs and switches. The default sealing standard for Tripac wall enclosure is IP-54.

The Tripac has two 19-inch profiles at the front, which can be adjusted at 20 mm intervals. In addition, two assembly profiles have been fitted in the wall-mounted part. Cable entry is possible at the top or bottom of this element. A cylinder bar lock in the front door secures your Tripac. The mechanism by which the middle segment is unlocked is on the inside, allowing the front part of the casing to be swung away.

Colour: RAL 7047

Finishing: Powder coating

Description: Smoked glass door

	TRI.095015	TRI.155015	TRI.215015
Height unit (U)	9	15	21
Height in mm	478	744	1011
Width in mm	600	600	600
Depth in mm	500	500	500
Weight in kg	26	34	43

Delivery consists of: Single items, incl. fastenings

Fan unit for Tripac wall enclosure

If you desire active ventilation in your Tripac wall enclosure, you can simply fit a fan unit into the top of your housing. The MCSTF01 thermostat (see page 52) can be used in combination with a fan unit. The thermostat ensures that the fan switches on at a temperature you have selected.

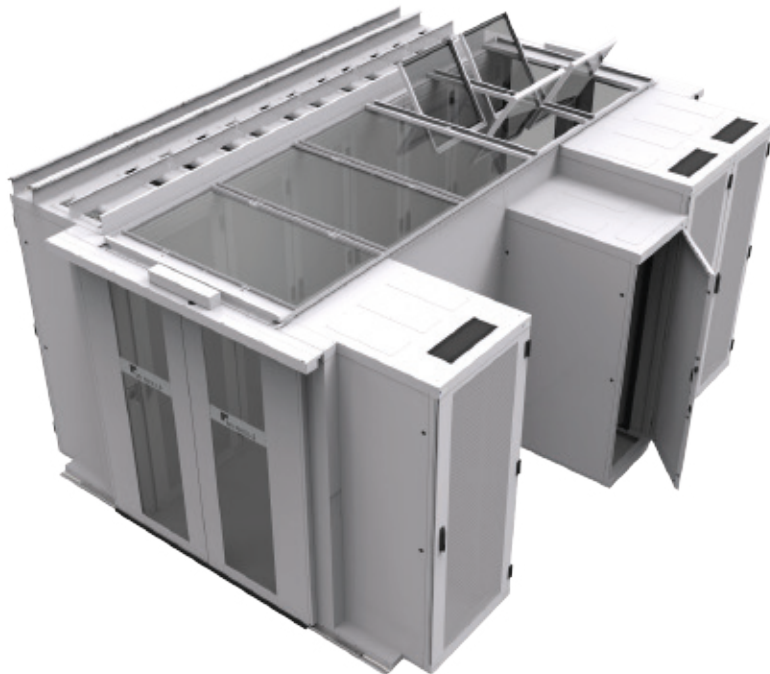


	TRI.VE.00.02
Technical details	230VAC / 50Hz - 110mA - 23 dB - 12 watt

Delivery consists of: 1 fan unit including assembly materials

If you have any questions about our wall enclosure units, or if you cannot find the products you are looking for in this catalogue, don't hesitate to contact us! We'll be happy to advise. You can find the contact details on the back side of this brochure.

COOLING aisle containment



Aisle containment systems are the solution to the challenge that data centres have faced from the very start: how to optimise cooling and energy efficiency through optimum separation of the warm and cold airflows. Servers are installed in insulated corridors. Cold air is blown into these corridors (aisles) to cool the servers. The warm air produced by the servers is extracted at the back.

In the form of the Next Generation Corridor and the Free Standing Corridor, Minkels offers two modular and flexible aisle containment solutions. These future-proof solutions enable Minkels offer the flexibility and modularity needed to keep a step ahead of the dynamic changes present in a modern-day data centre.

In this standard product catalogue, Minkels presents a number of components which can be used to expand your aisle containment. We would also like to refer you to our mass customisation brochure: www.minkels.com/downloads for more information about the aisle containment solutions, which can be assembled in whatever way you desire using the building blocks listed.

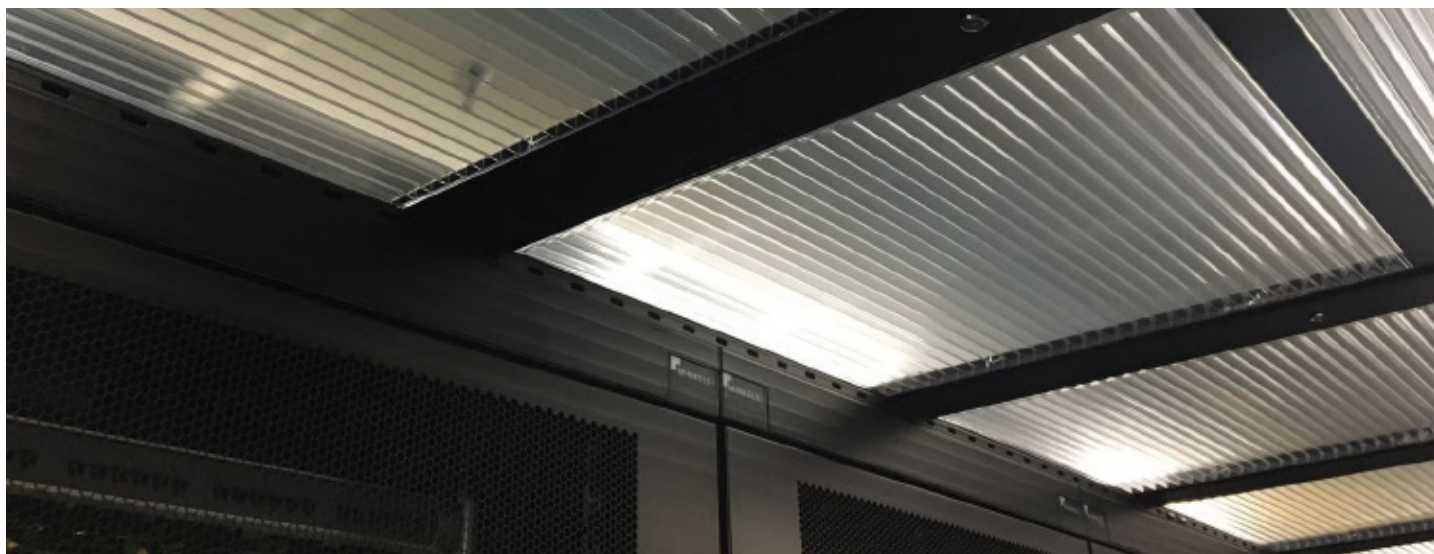


Watch the Free Standing Corridor and Drop Away Panels clip on the Minkels YouTube channel:

[Youtube.com/c/minkelshq](https://www.youtube.com/c/minkelshq)



2. Cooling 2.1 Passive cooling: Aisle containment - Roof systems



Drop away panels

Drop-away panels provide seamless integration of aisle containment solutions with sprinkler or water mist systems. In the event of a fire in the data centre, the plastic Drop-away panels automatically soften and drop down so that they do not cause an obstruction when the sprinklers are activated.



Drop-away panels	RAL 7047	RAL 9011
Length 4000 mm	MCS221224	MCS221224B
6000 mm	MCS221226	MCS221226B
8000 mm	MCS221228	MCS221228B
9600 mm	MCS221229	MCS221229B

Delivery consists of: Roof system, drop away panels and sealing

High Transparency Roof

Your aisle containment solution can be fitted with a High Transparency Roof. These roof panels provide high translucency / light transmission – up to 83%. The roof panels are mounted on rails, separate from the server racks. The length is the overall length of the aisle containment, i.e. including the start and end panels.

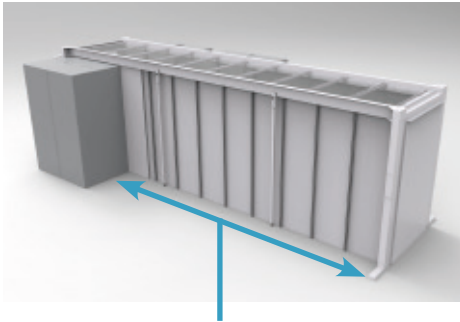


High Transparency Roof	RAL 7047	RAL 9011
Length 4000 mm	MCS221214	MCS221214B
6000 mm	MCS221216	MCS221216B
8000 mm	MCS221218	MCS221218B
9600 mm	MCS221219	MCS221219B

Delivery consists of: Roof system, glass panels and sealing



2. Cooling 2.2 Passive cooling: Aisle containment - Panel systems

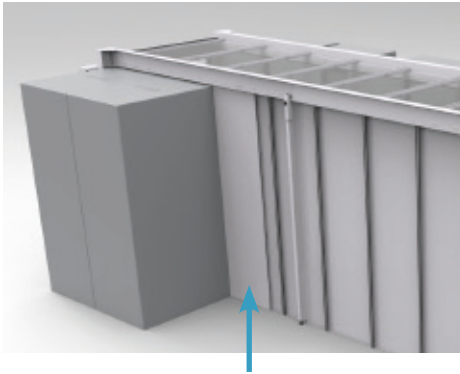


Panels for the Free Standing

You can use steel panels to create an airtight seal for the Free Standing Corridor in spaces where there are no racks. The side panels are connected by three quarter-turn locks. The panels are available in two different widths and colours and you can fill the remaining widths by turning the panel around. The side panels are earthed upon being attached to the Free Standing structure. The panels can be attached to the floor if desired.



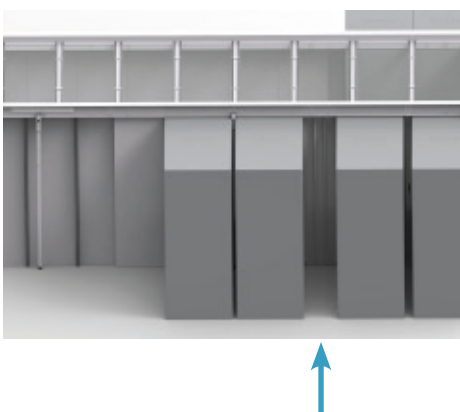
Panel filler for widths from 325 to 600 mm



You can fill the remaining widths by turning the side panel around.

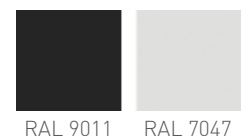
Panels	RAL 7047	RAL 9011
325 x 2200 mm (w x h)	MCS3337	MCS3337B
325 x 2400 mm (w x h)	MCS3338	MCS3338B
600 x 2200 mm (w x h)	MCS3367	MCS3367B
600 x 2400 mm (w x h)	MCS3368	MCS3368B

Delivery consists of: Pre-assembled panel including installation materials for floor assembly



Flexible steel panel for the Free Standing Corridor

Use the flexible, steel panels to fill and create an airtight seal in widths ranging from 100 to 400 mm. The flexible panels are earthed upon being attached to the Free Standing structure.



Flexible steel panel	RAL 7047	RAL 9011
100-175 x 2200 mm (w x h)	MCS3625	MCS3625B
150-275 x 2200 mm (w x h)	MCS3626	MCS3626B
250-350 x 2200 mm (w x h)	MCS3627	MCS3627B
300-400 x 2200 mm (w x h)	MCS3628	MCS3628B
100-175 x 2400 mm (w x h)	MCS3645	MCS3645B
150-275 x 2400 mm (w x h)	MCS3646	MCS3646B
250-350 x 2400 mm (w x h)	MCS3647	MCS3647B
300-400 x 2400 mm (w x h)	MCS3648	MCS3648B

Panel filler for widths from 100 to 400 mm

Delivery consists of: Flexible panels, top, bottom and side profiles including installation materials

2. Cooling

2.2 Passive cooling: Aisle containment - Panel systems



Steel Side filler for the Free Standing Corridor

The steel side fillers are for filling and sealing small openings between 50 and 110 mm in size. The side fillers are easy to mount using the integrated handle. After installation, simply turn the handle until it is out of the way.



RAL 9011



RAL 7047

Steel Side filler	RAL 7047	RAL 9011
50-70 x 2200 mm (w x h)	MCS3622	MCS3622B
70-90 x 2200 mm (w x h)	MCS3623	MCS3623B
90-110 x 2200 mm (w x h)	MCS3624	MCS3624B

Panel filler for widths from 50 to 110 mm

Delivery consists of: Panel with handle, foam sealant and bottom profile



Foam for vertical support

You can use the foam to seal openings between the racks and the posts or other openings under 50 mm in size.



RAL 9011



RAL 7047

Foam for vertical support	50 x 2200 mm (w x h)	50 x 2400 mm (w x h)
	MCS3621	MCS3641

Panel filler for widths from < 50 mm

Delivery consists of: Foam sealant



Top filler HPL package for the Free Standing Corridor

If racks of different heights are being used, you can seal the space between the Free-Standing Corridor structure and the racks with a top filler. The top fillers are made of HPL material and are automatically earthed once they are attached to the Free-Standing Corridor structure.



RAL 9011



RAL 7047

Top filler HPL package	RAL 7047	RAL 9011
Size XL 1100 x 1300 mm (w x h)	MCS5161	MCS5161B
Size L 1100 x 920 mm (w x h)	MCS5162	MCS5162B
Size M 900 x 620 mm (w x h)	MCS5163	MCS5163B
Size S 900 x 320 mm (w x h)	MCS5164	MCS5164B

Delivery consists of: HPL panel, top, bottom and side profiles, cutting template including installation materials

2. Cooling 2.2 Passive cooling: Aisle containment - Panel systems



RAL 9011



RAL 7047

Panel systems for the Next Generation Corridor

Use the flexible, steel panel systems to fill openings and create an airtight seal. These panel systems have been specifically designed for the Next Generation Corridor and are automatically earthed once they are attached to the structure. It is very easy to join the panels together.

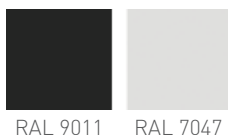
Panel systems	RAL 7047	RAL 9011
300 x 2000 x 25 mm (w x h x d)	MCS5111	MCS5111B
600 x 2000 x 25 mm (w x h x d)	MCS5112	MCS5112B
800 x 2000 x 25 mm (w x h x d)	MCS5113	MCS5113B
1200 x 2000 x 25 mm (w x h x d)	MCS5114	MCS5114B
300 x 2075 x 25 mm (w x h x d)	MCS5121	MCS5121B
600 x 2075 x 25 mm (w x h x d)	MCS5122	MCS5122B
800 x 2075 x 25 mm (w x h x d)	MCS5123	MCS5123B
1200 x 2075 x 25 mm (w x h x d)	MCS5124	MCS5124B
300 x 2200 x 25 mm (w x h x d)	MCS5131	MCS5131B
600 x 2200 x 25 mm (w x h x d)	MCS5132	MCS5132B
800 x 2200 x 25 mm (w x h x d)	MCS5133	MCS5133B
1200 x 2200 x 25 mm (w x h x d)	MCS5134	MCS5134B
300 x 2275 x 25 mm (w x h x d)	MCS5141	MCS5141B
600 x 2275 x 25 mm (w x h x d)	MCS5142	MCS5142B
800 x 2275 x 25 mm (w x h x d)	MCS5143	MCS5143B
1200 x 2275 x 25 mm (w x h x d)	MCS5144	MCS5144B
300 x 2400 x 25 mm (w x h x d)	MCS5151	MCS5151B
600 x 2400 x 25 mm (w x h x d)	MCS5152	MCS5152B
800 x 2400 x 25 mm (w x h x d)	MCS5153	MCS5153B
1200 x 2400 x 25 mm (w x h x d)	MCS5154	MCS5154B

Delivery consists of: Flexible side panels, top, bottom and side profiles including installation materials



2. Cooling 2.3 Passive cooling: Aisle containment - Door systems

If our standard product range doesn't fit your requirements, we would like to refer you to our Mass Customisation brochure: www.minkels.com/downloads where you can find more possibilities and options. You can of course also contact us for more information. You can find the contact details on the back side of this brochure.

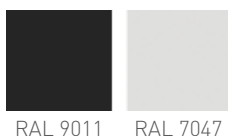


Self-closing sliding door

Minkels can offer mechanically self-closing sliding doors which provide an airtight enclosure for your aisle containment system. The self-closing sliding door system is available in two different colours, RAL 7047 and RAL 9011. The doors can be opened manually. After opening, the doors close by themselves. When the doors close, a soft closing mechanism ensures that the doors do not bang against each other unexpectedly. The door panels contain safety glass panels to guarantee the safety of your staff and to allow ambient light into the containment area, as well as making it possible to see into the corridors from outside.

RAL 7047	MCS221220
RAL 9011	MCS221220B
Automatic sliding door	1200 x 2200 (w x h)

Delivery consists of: Sliding door beam, set of doors and assembly materials



Extension beam

If the corridor has racks that are higher than the self-closing sliding door, you can correct the height difference with the extension beam. Example: If there is a rack (2200 mm high) with an elevated plinth at the end of the row, the rack will be 2275 mm high. However, the self-closing sliding door is 2200 mm high. You can correct the difference (2275-2200 = 75 mm) using the extension beam.

RAL 7047	MCS6035
RAL 9011	MCS6035B
Extension beam for corridor door	75 mm (w)

Delivery consists of: Extension beam with cap

2. Cooling 2.4 Passive cooling: Aisle containment - Accessories

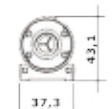
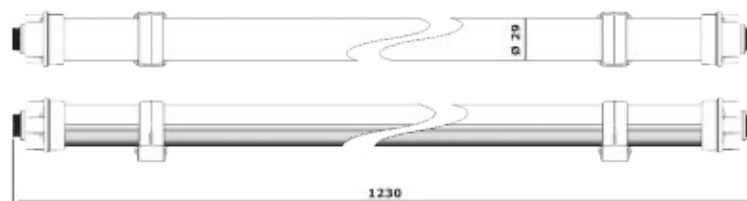
Minkels can offer energy-efficient LED Tubes that improve visibility within data centres, thereby creating a safer and healthier working environment. The highest safety certification level, IEC 62471:2006, guarantees that the eyes of users will be protected. These LED Tubes have been optimised for both the Next Generation and the Free Standing corridors.



LED lighting

Minkels LED Tubes are extremely easy to install. The suspension points are easy to position, allowing LED lighting to be fitted in a corridor in very little time. Once assembled, the Minkels LED Tube is highly flexible. The rotation capability in the tubes allows the lighting to be targeted specifically at particular pieces of equipment. The high lighting intensity and the energy efficiency of Minkels LED Tubes are particularly effective in the aisles of Free Standing or Next Generation corridors. Particularly when black racks are used, these LED Tubes provide improved visibility. Minkels LED Tubes can be easily extended using extension cords that are hidden away behind small covers so that they appear as a single whole. Each LED Tube can be fitted with a motion sensor so that the lights turn off if no motion is detected for a period of time. This functionality again underlines the energy efficiency of this lighting solution for a data centre.

	Description	
	LED light 120 cm wide	MCS4011
	LED light 120 cm wide with PIR sensor	MCS4012
Start and end panel kit for Next Generation Corridor and Free-Standing Corridor for LED 1200 mm - RAL 7047		MCS4013
Start and end panel kit for Next Generation Corridor and Free-Standing Corridor for LED 1200 mm - RAL 9011		MCS4013B
Start and end panel kit for Next Generation Corridor and Free-Standing Corridor for LED 1800 mm - RAL 7047		MCS4014
Start and end panel kit for Next Generation Corridor and Free-Standing Corridor for LED 1800 mm - RAL 9011		MCS4014B
	Power cable, 4 metres, C14 connector	MCS4021
	Plastic cover + power cable (10 cm), male-female connector	MCS4022



2. Cooling

2.5 Active cooling: VariCondition dummy coolers and fillers



Dummy cooler

VariCondition dummy coolers

You can use dummy coolers if you want to reserve space for a future 300 mm row-based cooler. The reserved space at the top, front and back side will already have an airtight seal thanks to the dummy cooler. The dummy cooler you select depends on the cooling method you choose: **closed loop**, **open loop** or **hybrid loop**. Both the dummy and the actual row-based cooler are 2000 mm high. If a different height is required, you can fill the space with the VariCondition dummy materials listed below.

VariCondition Dummy cooler	RAL 7047	RAL 9011
Open loop - 300 mm wide	MCS7021	MCS7021B
Hybrid loop - 300 mm wide	MCS7022	MCS7022B
Closed loop - 300 mm wide	MCS7023	MCS7023B

Delivery consists of: Dummy frame, front and back panel including installation materials

VariCondition filler for top of unit

The VariCondition fillers are used in combination with the dummy coolers or row-based coolers and are equipped with a cutout for cables. The fillers fill the remaining space and create an airtight seal.

VariCondition filler for top of unit	RAL 7047	RAL 9011
300 x 1000 x 2075mm (w x d x h)	MCS7041	MCS7041B
300 x 1000 x 2200mm (w x d x h)	MCS7042	MCS7042B
300 x 1000 x 2275mm (w x d x h)	MCS7043	MCS7043B
300 x 1100 x 2075mm (w x d x h)	MCS7051	MCS7051B
300 x 1100 x 2200mm (w x d x h)	MCS7052	MCS7052B
300 x 1100 x 2275mm (w x d x h)	MCS7053	MCS7053B
300 x 1200 x 2075mm (w x d x h)	MCS7061	MCS7061B
300 x 1200 x 2200mm (w x d x h)	MCS7062	MCS7062B
300 x 1200 x 2275mm (w x d x h)	MCS7063	MCS7063B

Delivery consists of: Filler including installation materials

VariCondition H20-324 bottom filler

If you wish to connect your row-based cooler to a Varicon-M rack with an elevated plinth, you can use the below fillers to fill the bottom of the unit.

VariCondition H20-324 bottom filler	RAL 7047	RAL 9011
1100/1200 x 75 mm (d x h)	MCS7267	MCS7267B

Delivery consists of: Filler, plinth and earthing cables

Closed loop

In a closed loop solution, all airflow from the cooler is routed directly into the adjacent 19 inch racks.

Open loop

In an open loop solution, the cold air just outside the racks is routed into the space.

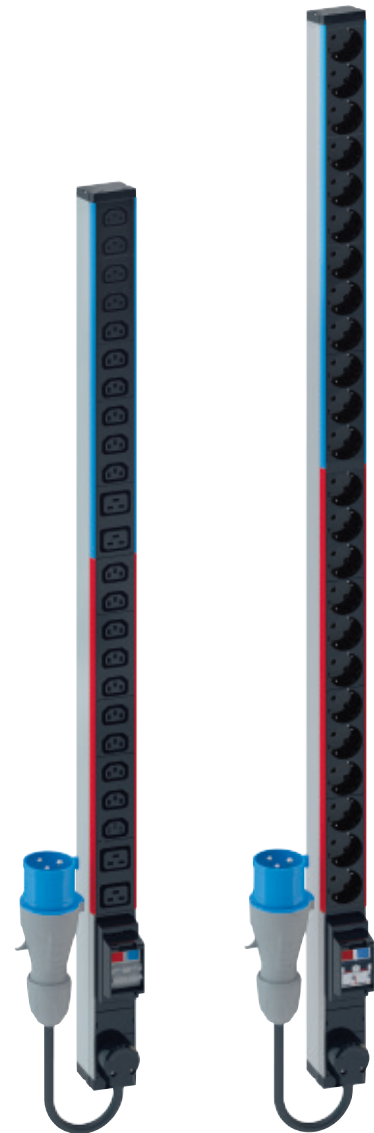
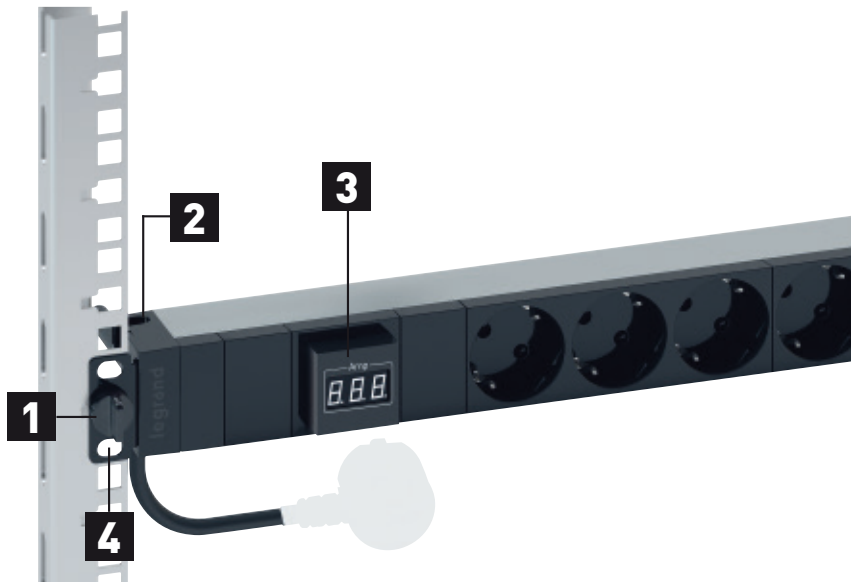
Hybrid cold loop

This solution is a combination of a closed loop and an open loop solution. The hot air is extracted from the cabinet, just like with a closed loop solution, thus directly from the back side of the rack. This hot air is then cooled in the cooler and transported to the front side of the racks in the same manner as with an open loop solution. It is also possible to completely reverse the airflows (hybrid hot loop solution).

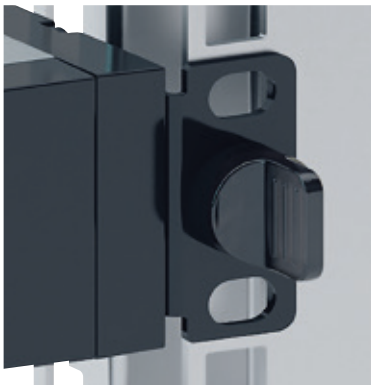
POWER & CONNECTIVITY

Power is an operationally critical component of any server room and any data centre. Even the slightest interruption to the power supply can have a huge impact. Minkels Power & Connectivity solutions make it possible to manage the risks of power outages. Minkels has made this part of the policy for supplying energy-efficient solutions for data centres.

Together with Legrand and the Minkels sister company Raritan, we can provide basic and intelligent PDUs that not only meet your requirements today but will fulfil your needs tomorrow.



1 RAPID ASSEMBLY



NO TOOLS NEEDED FOR ASSEMBLY

Can be fitted onto the 19-inch profiles quickly and without tools. No screws or nuts are needed.

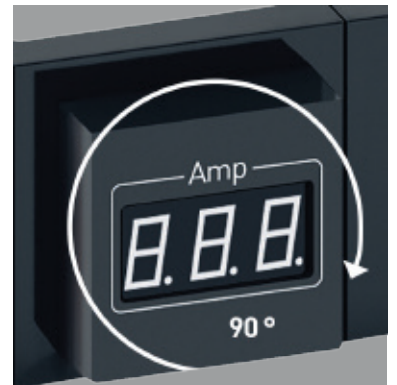
2 CABLE GUIDE



OPTIMISATION OF SPACE

Cables are kept firmly in place by a cable guide.

3 AMMETER




CHANGING THE POSITION


The ammeter can be rotated 90 degrees to make sure it is easy to read, irrespective of the orientation in which it is assembled (horizontal or vertical).


3. Power & Connectivity 3.1 Basic PDU

1U basic PDU

The ease with which the innovative 19-inch Basic PDUs can be installed is a major benefit. If you fit the PDU horizontally, you do not need any tools or fasteners for assembly. The PDUs can however also be mounted vertically in the rack; for vertical assembly you do need to fasten it in place. The PDUs with C13 and C19 outlets have a locking system so that they cannot be removed accidentally.

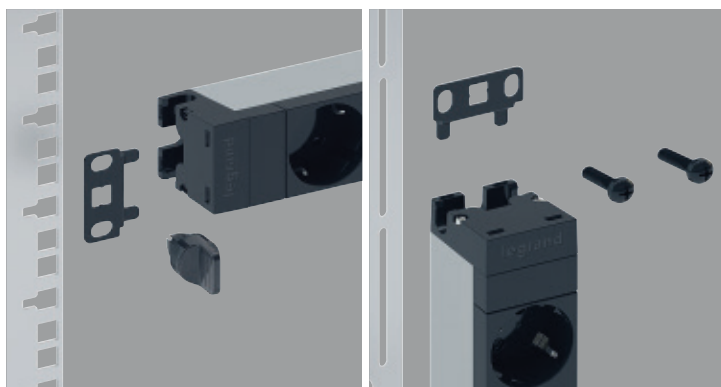
SCHUKO/UTE plugs	646806	646840	646841	646820	646821	LPS0004	LPS1004
Outlets	SCHUKO (6)	UTE (6)	SCHUKO (6)	UTE (9)	SCHUKO (9)	SCHUKO (14)	UTE (14)
Assembly	19-inch	19-inch	19-inch	19-inch	19-inch	Vertical	Vertical
Power Supply	1 Phase 16A	1 Phase 16A	1 Phase 16A	1 Phase 16A	1 Phase 16A	1 Phase 16A	1 Phase 16A
Technical details	-	Ammeter	Ammeter	Current indicator light	Current indicator light	Current indicator light	Current indicator light
Branding							

BS1363 plug	646813	IEC 60309 plug	646815	646853	646861	LPS8001	LPS9002
Outlets	BS1363 (8)	Outlets	C13 (12)	SCHUKO (24) and MCB (2)	MCB (2), C13 (20) and C19 (4)	C13 (30) and C19 (12)	MCB 16A (3), C13 (14) and C19 (12)
Assembly	19-inch	Assembly	19-inch	Vertical	Vertical	Vertical	Vertical
Power Supply	1 Phase 13A	Power Supply	1 Phase 16A	1 Phase 32A, MCB 16A (2)	1 Phase 32A, MCB 16A (2)	3 Phase 16A	3 Phase 32A, MCB 16A (3x2)
Technical details	-	Technical details	-	-	-	-	-
Branding							

Output blocking	646890	646892	646894	646895
Description	Schuko/UTE set of 6 pcs with key	BS1363 set of 6 pcs with key	C13 set of 6 pcs with key	C19 set of 6 pcs with key
Branding				

Assembly bracket	LPS0091	LPS0092	LPS0093	LPS0094
	Toolless assembly bracket for 1 vertical PDU	Toolless assembly bracket for 2 vertical PDUs	Assembly bracket for 1 vertical PDU	Assembly bracket for 2 vertical PDUs
	Set of 2 pcs	Set of 2 pcs	Set of 2 pcs	Set of 2 pcs
Suitable for	Raritan PDU	Raritan PDU	Legrand PDU	Legrand PDU

4 ASSEMBLY BRACKETS



HORIZONTAL OR VERTICAL

Designed for horizontal assembly without tools. The 1U PDUs can also be fitted vertically, simply by rotating the assembly brackets. When fitted vertically, a bolt and screw are needed, however, to fit the PDU firmly upright.

3. Power & Connectivity 3.2 Intelligent PDU

The Raritan PXE series is an intelligent rack PDU that allows the user to read off the power consumption at the PDU and fuse level, both locally and remotely. You can choose from a wide spectrum of models.

The optional plug-and-play air humidity and temperature sensors also monitor the server cabinet environment closely and the user is warned when freely definable threshold values are exceeded, which avoids downtime.

The rack PDUs can also be delivered as a fully integrated, preassembled solution in combination with other Minkels data centre and server room solutions.

Power strip, IEC, single phase, up to 16A

Intelligent 230V 16A rack PDU for measuring current (amps), voltage, power (kVA, kW), power factor (Pf), and consumption (kWh) at the PDU level.



CEE (IEC 60309) plug	PXE-1190R	PXE-1488
Outlets	IEC C13 (8)	IEC C13 (20) and IEC C19 (4)
Assembly	19 inch, 1U horizontal	0U vertical
Technical details	230-240VAC - Ethernet, RS485 serial, USB-B, Environmental Rack Sensor Port	230-240VAC - Ethernet, RS485 serial, USB-B, Environmental Rack Sensor Port

Power strip, single phase, 230-240VAC, up to 32A

Intelligent 230V 32A rack PDU for measuring current (amps), voltage, power (kVA, kW), power factor (Pf), and consumption (kWh) at the PDU level.



CEE (IEC 60309) plug	PXE-1392	PXE-1493	PXE-1847
Outlets	16A MCBs (2) and IEC C13 (16)	16A MCBs (2), IEC C13 (20) and IEC C19 (4)	16A MCBs (2), IEC C13 (36) and IEC C19 (6)
Assembly	0U vertical	0U vertical	0U vertical
Technical details	7.4 – 7.7 kVA, Ethernet, RS-485 serial, USB-B, Environmental Rack Sensor Port		

If you have any questions about our power solutions or if you cannot find the products you are looking for in this catalogue, don't hesitate to contact us! We'll be happy to advise. You can find the contact details on the back side of this brochure

PDU – metered, non-switched, 400 volt / 3-phase AC model

Intelligent three-phase 400V 16A rack PDU with 42 power connections (36x IEC320 C13, 6x IEC320 C19) that makes it possible not only to provide power but also to measure current (amps), voltage, power (kVA, kW), power factor (Pf), and consumption (kWh) at the PDU level.



IEC 60309 16A plug, 3P+N+PE	PXE-1966
Outlets	IEC C13 (36) and IEC C19 (6)
Assembly	0U vertical
Technical details	Ethernet, RS-485 serial, USB-B, Environmental Rack sensor port

Air humidity and temperature sensor

Easy to connect to the PXE and immediately ready to use, Raritan's environmental sensors offer added value in data centres and server rooms by monitoring the conditions in and around the server cabinet. The temperature and humidity are monitored very precisely and the user receives a warning at the moment particular thresholds are exceeded, in order to prevent potential problems.



Air humidity and temperature sensor	DPX2-T1H1	DPX2-T3H1
Description	Temperature (1) & Humidity (1) Sensor with Replaceable Sensor Head for PX2/PX3 PDU - 3 Mtr Cable with RJ12 Connector	Combo of Temperature (3) and Humidity (1) Sensor with Replaceable Sensor Head for PX2/PX3 - 3 Mtr Cable with RJ12 Connector

MONITORING

Environmental Monitoring System

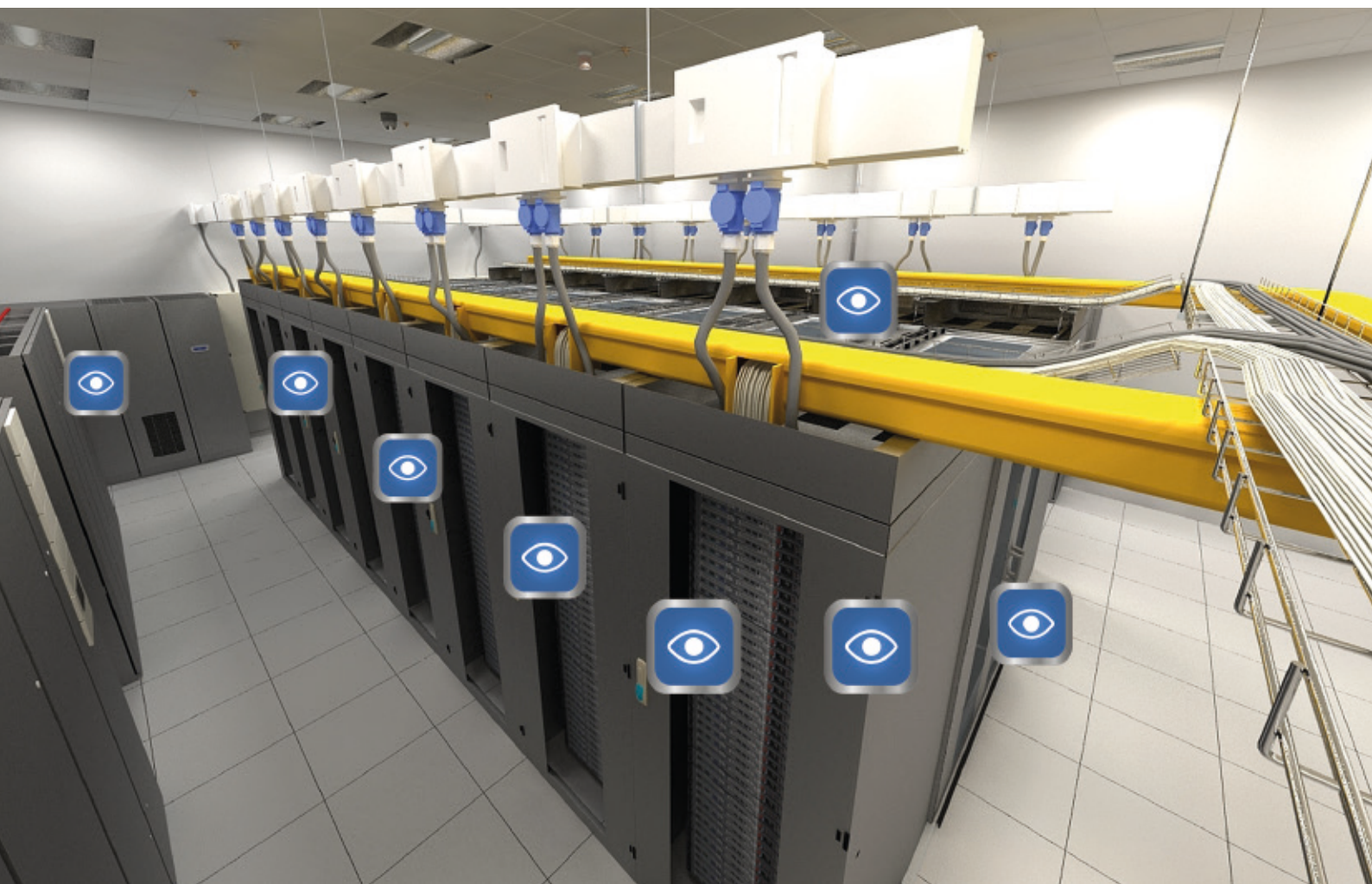
Minkels monitoring systems are capable of monitoring the direct surroundings of your racks. The modular and efficient construction of the system makes it easy to check up on a single rack or an entire room. The systems can of course be integrated seamlessly and managed using your existing network management software.

A variety of products are available. The various versions feature different numbers of ports.

We make a distinction here between intelligent ports and the so-called 'dry contact' ports. The intelligent ports are used e.g. for measuring temperature, humidity and air flows. The dry contact ports, on the other hand, are simple on/off switches where e.g. alerts can be read out from CRAC or UPS systems, or which can be used for door contacts.

Alerts

In the event of an emergency, the relevant people can be alerted in a variety of ways: by e-mail, text messaging, a web interface and SNMP. The monitoring system therefore allows you to always rest assured of the conditions in your computer and the control rooms.



4. Monitoring 4.1 Environmental monitoring system



Controllers

Various controllers are available, depending on the number of measuring points and the types of sensors desired.

In addition, the Pro version offers an even higher degree of management, providing you with more control of your environment.

	Controller	Controller	Controller	Controller	Controller
	MRM0001	MRM0003	MRM0010	MRM0020	MRM0030
Sensor ports	2	4	8	8	8
Dry contact ports	available via sensor port adapter [MRM0132]	available via sensor port adapter [MRM0132]	available via sensor port adapter [MRM0132]	20	60
Camera ports	0	0	0	0	0
Extension ports	0	0	0	0	0

Delivery consists of: incl. assembly materials. Delivery: in consultation

	Pro controller	Pro controller	Pro controller	Pro controller
	MRM0010LS	MRM0011L	MRM0020LS	MRM0030LS
Sensor ports	8	8	8	8
Dry contact ports	available via sensor port adapter [MRM0132]	available via sensor port adapter [MRM0132] and/or 8-port dry contact sensor [MRM0124]	20	60
Camera ports	0	4	0	0
Extension ports	2	2	2	2

Delivery consists of: incl. assembly materials. Delivery: in consultation

	Controller extension	Controller extension	GPRS modem for text-message alerts (only with the Pro controller)	
	MRM0040	MRM0041	MRM0042	
Sensor ports	0	8	Sensor ports	0
Dry contact ports	16	available via sensor port adapter [MRM0132]	Dry contact ports	available via sensor port adapter [MRM0132]
Camera ports	0	0	Camera ports	0
Extension ports	0	0	Extension ports	0

Delivery consists of: incl. assembly materials. Delivery: in consultation

4. Monitoring 4.1 Environmental monitoring system

Environmental sensors

The environmental sensors measure the surroundings of the IT equipment and they are connected to the controllers. Using these sensors allows you to monitor e.g. the temperature and humidity.



MRM0101



MRM0102



MRM0118



MRM0122



MRM0117



MRM0109

	Description	
	Temperature sensor with fixed cable (1 m)	MRM0101
	Temperature sensor with fixed cable (2.5 m)	MRM0102
	Temperature sensor	MRM0118
	Temperature sensor (daisy chain to max. 8 sensors) – only with a Pro controller	MRM0122
	Air humidity and temperature sensor	MRM0117
	Airflow sensor	MRM0109

Delivery consists of: incl. assembly materials. Delivery: in consultation

Security and safety sensors

The influence of cloud computing, tighter standards and new guidelines for data centres mean that there is a growing demand for data centre security and safety solutions. Minkels offers a wide variety of security and safety sensors such as motion detectors, smoke detectors and water leak detectors.



MRM0124



MRM0110



MRM0111



MRM0119



MRM0130



MRM0131



MRM0105



MRM0125



MRM0127



MRM0126



MRM0132

	Description	
	Dry contact sensor with 8 ports (only with Pro controller)	MRM0124
	Motion detector	MRM0110
	Smoke detector	MRM0111
	Siren and flashing light	MRM0119
	Universal camera (USB)	MRM0130
	Dome camera with pan/tilt control (USB)	MRM0131
	Water leak detector with fixed cable (4.5 m)	MRM0105
	Water leak detector with fixed cable (30 m)	MRM0125
	Water leak detection loop (3 m)	MRM0127
	Water leak detection loop extension (3 m)	MRM0126
	Dry contact sensor (adapter)	MRM0132

Delivery consists of: incl. assembly materials. Delivery: in consultation

4. Monitoring 4.1 Environmental monitoring system

SENSORS

The plug-and-play sensors are recognised automatically by the system. All the sensors are powered by the unit. No separate power supply is therefore required for the sensors. All sensors are connected using an RJ 45 connector. If a registered sensor is removed, a notification will be issued.

Other sensors

The environmental sensors measure the surroundings of the IT equipment and they are connected to the VariControl-S controllers.



MRM0112



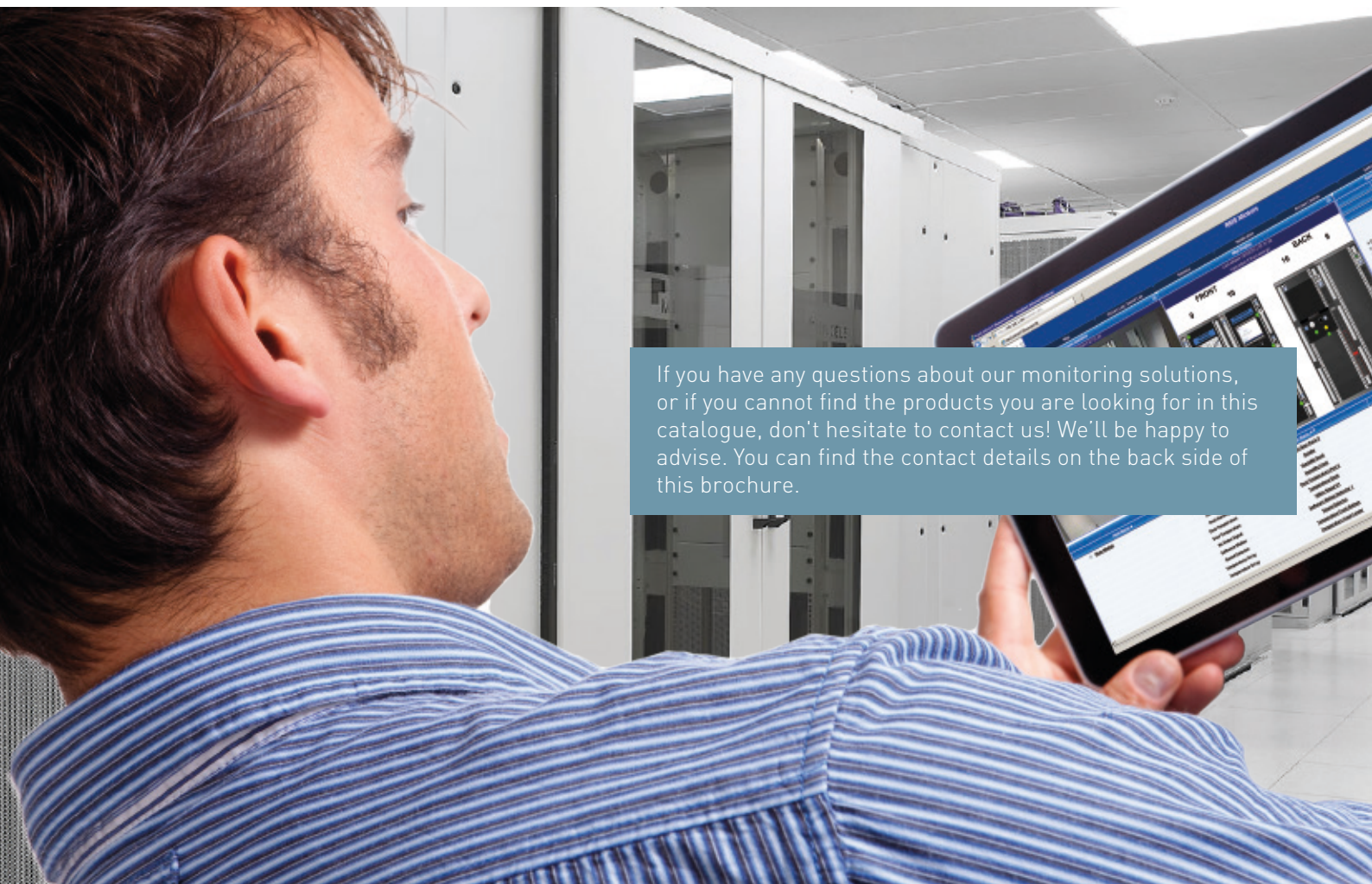
MRM0114



MRM0116

Description	
AC voltage detector	MRM0112
Sensor-controlled relay	MRM0114
4-20 mA signal converter	MRM0116
Magnetic door switch	MRM0128

Delivery consists of: incl. assembly materials. Delivery: in consultation



If you have any questions about our monitoring solutions, or if you cannot find the products you are looking for in this catalogue, don't hesitate to contact us! We'll be happy to advise. You can find the contact details on the back side of this brochure.

MICRO DATA CENTRE

solutions

Minkels micro data centre solutions are all about making ordering easy. Simplicity combined with reliability, efficiency and cost-effectiveness. Complete, assembled solutions can be ordered using just a single item number! And all solutions can of course be expanded upon with a number of options and accessories. In all cases, ease of configuration and ordering is the key!

MATRIXCUBE

One of the Minkels micro data centre solutions is the MatrixCube. Minkels and Legrand have brought power distribution, cooling, housing and mechanical infrastructure together in a single solution. This turns the MatrixCube into a complete and compact server room. The MatrixCube does not depend on the room it is in and can be implemented at almost any location within a business. No radical modifications to the building are needed.

Simple and rapid ordering of off-the-shelf, cost-effective professional IT infrastructure!



Off-the-shelf, cost-effective professional IT infrastructure

The MatrixCube



Rear of MatrixCube



Front of MatrixCube

A reliable IT environment has become increasingly important. It has grown to become an operationally critical item that helps justify a company's raison d'être. But by no means all companies are ready to outsource and prefer to keep the IT infrastructure within the walls of their own organisation. That is why Minkels and Legrand have developed the MatrixCube – a preconfigured, turnkey IT infrastructure solution specifically targeting the SME sector, aiming to eliminate all the IT manager's worries.

Interested in how it works? Watch our MatrixCube clip: youtube.com/minkels_hq

ADVANTAGES

- A reliable and cost-effective solution for server rooms
- Not building-dependent, making it simple to implement.
- Energy-efficient accommodation for your IT infrastructure.
- Proven technology.
- A turnkey solution, including installation and commissioning.
- Customer specific modifications possible.

5. Micro data centre solutions

5.1 MatrixCube

16A (2.5 kW/server rack)	MXC1600**
32A (5 kW/server rack)	MXC3200**
Power distribution rack	1
Server rack	2
VariCondition-DX cooler	1
Width in mm	2700
Depth in mm	1200
Height in mm	2350
Overall weight in kg	± 770
Colour	RAL 9011
Certification	CE

** in the item number is replaced by the country code (e.g. NL, CH, BE, FR)

MatrixCube basic configuration

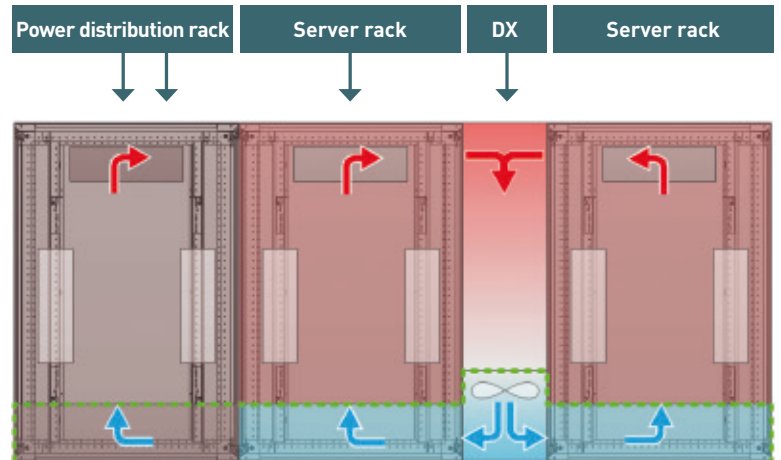
The basic configurations are classed by IT power per rack, either 2.5 or 5kW per server rack. A basic configuration always consists of:

- One power distribution rack containing the power distribution, UPS systems and monitoring.
- Two server racks into which the customer's equipment can be installed. These racks have two intelligent power strips (A and B) for powering the IT equipment.
- One VariCondition-DX cooler to handle cooling requirements.
- Given how dependent server rooms are, it was decided to add a monitoring system to the standard configuration. This system provides continuous monitoring of temperature, safety, availability and energy consumption and is connected by default to a central system in the cloud. This means that you can always view the status of your IT equipment present in the MatrixCube online. Optionally, a proactive 24/7 notification service can be added to this monitoring system so that the service department will be contacted immediately in the event of an emergency.



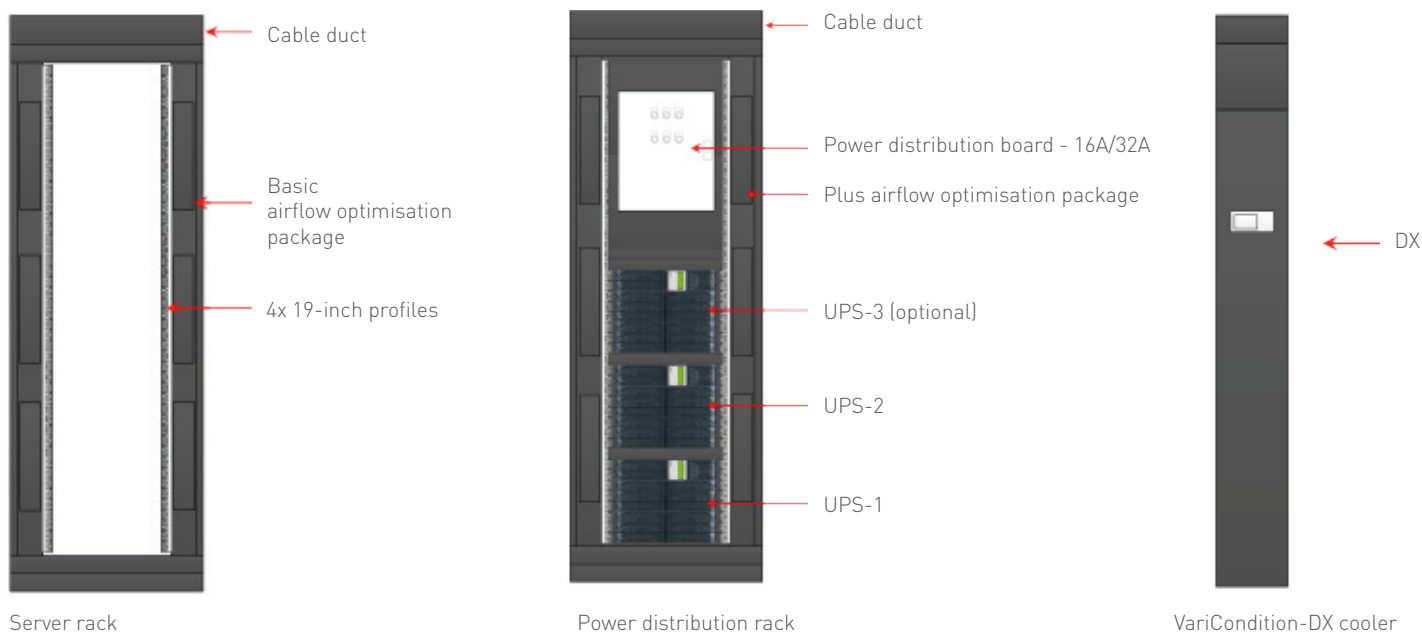
Watch the MatrixCube clip on the Minkels YouTube channel:

[Youtube.com/c/minkelshq](https://www.youtube.com/c/minkelshq)



5. Micro data centre solutions

5.1 MatrixCube



Expansion modules for the MatrixCube

Extra options:

- Extra power distribution rack which provides a redundant power supply and UPS systems.
- Extra server rack so which provides more room for customer equipment. When an extra server rack is ordered, an additional UPS is delivered which can be added to the power distribution rack.
- Extra VariCondition-DX cooler to provide redundancy in the cooling.
- Extra autonomous operation time for the UPS systems.

Cable tray set for the MatrixCube

Cable trays are available to allow you to optimise the way cables are led to the MatrixCube.

Expansion modules	
Server rack 16A (+ UPS)	MXC1610**
Server rack 32A (+ UPS)	MXC3210**
Power distribution rack 16A (without monitoring)	MXC1620**
Power distribution rack 32A (without monitoring)	MXC3220**
VariCondition-DX 11kW	MXC1001**
VariCondition-DX 22kW	MXC1002**
VariCondition-DX 11 kW end-of-row	MXC1003
VariCondition-DX 22 kW end-of-row	MXC1004
Extended UPS set	MXC2001
Extended UPS Autonomy - Battery Tray (per UPS)	MXC2002

Cable tray set for the MatrixCube	
Suitable for the server rack (expansion module) + top covers (expansion module)	MXC3002
Suitable for the power rack (expansion module) + top covers (expansion module)	MXC3003

** in the item number is replaced by the country code (e.g. NL, CH, BE, FR)

5. Micro data centre solutions

5.2 MiniCube



MiniCube basic configuration

Due to the effects of the cloud, many companies have a need to reduce the size of their server rooms and to save costs. Do you have fewer and fewer applications physically running on the servers on site at your company? Do you only want to keep your business critical information in house? If so, this is the time to implement an efficient, turn-key data centre. The MiniCube is also the ideal solution if you want to be able to access your data more quickly – low latency – or professionalise your server room. The MiniCube comes with everything a complete data centre has in the most compact form possible: cabinets, power supply, monitoring and cooling. The MiniCube comes completely pre-configured and is fully plug-and-play. Therefore, the MiniCube makes your IT manager's life much easier!

Benefits

- Reliable and cost-efficient solution for server rooms
- Building-independent, thus easy to implement
- Fast delivery times
- Use of proven technologies
- Turn-key solution

	MiniCube 2 kW - Basic	MIC2000
	MiniCube 3,5 kW - Advanced	MIC3500A
	MiniCube 3,5 kW - Advanced, automatic door opener	MIC3510A
	Server rack	1
	Top of rack cooler	1
	Width in mm	800
	Depth in mm	1200
	Height in mm	2300
	Minimum dimensions conditions to place the MiniCube solution	2800 x 2800 x 2800 mm (w x d x h)
	Total weight in kg	± 280
	Colour	RAL 9011
	Certification	CE / IEC60950



5. Micro data centre solutions 5.2 MiniCube

Expansion modules for the MiniCube

The basic configuration of the MiniCube can be enhanced with a variety of enhancement modules:

- SNMP card for UPS
- Additional 19 inch passive PDUs (region-dependent) for other equipment
- Additional passive or intelligent PDUs that can be used to create a 'B-feed'.



	MIC1010
Description	SNMP & Modbus communication card for UPS

IEC 60309 plug	MIC1020	MIC1030
Outlets	C13 (20) and C19 (4)	MCB 16A (2), C13 (20) and C19 (4)
Assembly	Vertical	Vertical
Branding	legrand	Raritan. <small>A brand of legrand</small>

Stekker C20	MIC1040	MIC1050	MIC1060	MIC1070
Outlets	SCHUKO (9)	UTE (9)	BS1363 (7)	T23 (10)
Assembly	19-inch	19-inch	19-inch	19-inch
Branding	legrand			

A

Adjustable feet, set of 4 pcs.....	MSM1001	23
Adjustable feet 25 mm, 1500 kg, set of 2 pcs.....	MSM1002	23
Air guide, 1 U for rear, slides in/out, 210-300 mm.....	MRS0001	46
Air guide, 2 U for rear, slides in/out, 350-500 mm.....	MRS0002	46
Assembly brackets, universal (set of 4).....	MCE0410	25
Assembly profile including high volume cable guides 41 U.....	MCM2026	38
Assembly profile including high volume cable guides 46 U.....	MCM2027	38
Assembly profile including high volume cable guides 50 U.....	MCM2028	38

B

Baying kit set 6 pcs, inside/outside, single, RAL 7047.....	MFM0055	29
Baying kit 6 pcs, inside/outside, single, RAL 9011.....	MFM0055B	29
Baying kit 6 pcs, external, RAL 7047.....	MFM0056	29
Baying kit 6 pcs, external, RAL 9011.....	MFM0056B	29

C

Cable bridge cover, (150 mm wide) 150-1700 mm, RAL 7047.....	MCM0322	36
Cable bridge cover, (150 mm wide) 150-1030 mm, RAL 7047.....	MCM0323	36
Cable bridge cover, (150 mm wide) 150-1700 mm, RAL 9011.....	MCM0322B	36
Cable bridge cover, (150 mm wide) 150-1030 mm, RAL 9011.....	MCM0323B	36
Cable clip 10x, vertical, plastic, fits on cable trunking - 40 x 78 mm (w x d).....	MCM0014	40
Cable clip 10x, horizontal, fits on front, 1U - 40 x 86 mm (w x d).....	MCM0002	41
Cable clip 100x, horizontal, fits on front, 1U - 40 x 86 mm (w x d).....	MCM1002	41
Cable clip vertical, fits on upright post - 45 x 74 mm (w x d).....	MCM0001	41
Cable clip 100x, vertical, fits on upright post - 45 x 74 mm (w x d).....	MCM1001	41
Cable clip, vertical, fits 19-inch - 110 x 154 mm (w x d).....	MCM0007	41
Cable clip 100x, vertical, fits 19-inch - 110 x 154 mm (w x d).....	MCM1007	41
Cable clip, vertical, fits on upright post - 85 x 165 mm (w x d).....	MCM0008	42
Cable clip 100x, vertical, fits on upright post - 85 x 165 mm (w x d).....	MCM1008	42
Cable clip, vertical, fits on upright post - 130 x 120 mm (w x d).....	MCM0009	42
Cable clip 100x, vertical, fits on upright post - 130 x 120 mm (w x d).....	MCM1009	42
Cable clip, vertical, fits on upright post - 77 x 100 mm (w x d).....	MCM0010	42
Cable comb, 4 teeth 1 U, 19 inch RAL 7047.....	MCM0011	40
Cable comb, 4 teeth 1 U, 19 inch RAL 9011.....	MCM0011B	40
Cable comb, 5 teeth, plastic 1 U, 19 inch.....	MCM0013	40
Cable conduit brush for Duopac and Tripac.....	TRI.KA.00.01	54
Cable conduit brushes (set).....	MBM1003	24

Cable conduit panel with brush 1U, 19 inch.....	MCM0031B	30
Cable conduit panel with brush 2U, 19 inch.....	MCM0032B	30
Cable conduit plate - 19 inch x 1.5 mm x 2U (w x d x h) RAL 7047.....	MCS5002	47
Cable conduit plate - 19 inch x 1.5 mm x 2U (w x d x h) RAL 9011.....	MCS5002B	47
Cable conduit foam - 19 inch x 1U (w x h) RAL 7047.....	MCS5006	47
Cable conduit foam - 19 inch x 1U (w x h) RAL 9011.....	MCS5006B	47
Cable conduit foam - 19 inch x 1U - front plate 19 inch x 1U, RAL 7047.....	MCS5005	47
Cable conduit foam - 19 inch x 1U - front plate 19 inch x 1U, RAL 9011.....	MCS5005B	47
Cable conduit foam - 19 inch x 2U RAL 7047.....	MCS5004	47
Cable conduit foam - 19 inch x 2U RAL 9011.....	MCS5004B	47
Cable duct, wire mesh - 200 x 30 x 41U/2000 mm (wxh).....	MCM0146	37
Cable duct, wire mesh - 200 x 30 x 46U/2200 mm (wxh).....	MCM0147	37
Cable duct, wire mesh - 200 x 30 x 50U/2400 mm (wxh).....	MCM0148	37
Cable duct, wire mesh - 300 x 30 x 41U/2000 mm (wxh).....	MCM0156	37
Cable duct, wire mesh - 300 x 30 x 46U/2200 mm (wxh).....	MCM0157	37
Cable duct, wire mesh - 300 x 30 x 50U/2400 mm (wxh).....	MCM0158	37
Cable ducting, front to back, sliding 550 - 800 mm.....	MCM0028	39
Cable guides 6x, 6 U assembly profile.....	MCM2001	38
Cable guides 10x, 25 U assembly profile.....	MCM2014	38
Cable guides 10x, 41 U assembly profile.....	MCM2016	38
Cable guides 10x, 46 U assembly profile.....	MCM2017	38
Cable guides 10x, 50 U assembly profile.....	MCM2018	38
Cable guides 20x.....	MCM2009	38
Cable guides 38x, 41 U assembly profile.....	MCM2003	38
Cable guides 43x, 46 U assembly profile.....	MCM2005	38
Cable guides 47x, 50 U assembly profile.....	MCM2007	38
Cable guides 76x, 41 U assembly profile.....	MCM2004	38
Cable guides 86x, 46 U assembly profile.....	MCM2006	38
Cable guides 94x, 50 U assembly profile.....	MCM2008	38
Cable reel, diameter 60x75 mm.....	MCM2011	39
Cable storage cassette - 19 inch.....	MCM1111	39
Cable tray cover for VariCondition H20/DX, wide, 600 mm, RAL 7047.....	MCM0319	35
Cable tray cover for VariCondition H20/DX, wide, 600 mm, RAL 9011.....	MCM0319B	35
Cable tray cover for VariCondition H20/DX, narrow, 200 mm, RAL 7047.....	MCM0318	35
Cable tray cover for VariCondition H20/DX, narrow, 200 mm, RAL 9011.....	MCM0318B	35
Cable tray cover, wide (600 mm) for cabinet 1000 mm wide, RAL 7047.....	MCM0329	35
Cable tray cover, wide (600 mm) for cabinet 1000 mm wide, RAL 9011.....	MCM0329B	35
Cable tray cover, wide (600 mm) for cabinet 600 mm wide, RAL 7047.....	MCM0312	35
Cable tray cover, wide (600 mm) for cabinet 600 mm wide, RAL 9011.....	MCM0312B	35
Cable tray cover, wide (600 mm) for cabinet 800 mm wide, RAL 7047.....	MCM0313	35
Cable tray cover, wide (600 mm) for cabinet 800 mm wide, RAL 9011.....	MCM0313B	35
Cable tray cover, narrow (200 mm) for cabinet 1000 mm wide, RAL 7047.....	MCM0328	35
Cable tray cover, narrow (200 mm) for cabinet 1000 mm wide, RAL 9011.....	MCM0328B	35
Cable tray cover, narrow (200 mm) for cabinet 600 mm wide, RAL 7047.....	MCM0310	35

Cable tray cover, narrow (200 mm) for cabinet 600 mm wide, RAL 9011.....	MCM0310B	35
Cable tray cover, narrow (200 mm) for cabinet 800 mm wide, RAL 7047.....	MCM0311	35
Cable tray cover, narrow (200 mm) for cabinet 800 mm wide, RAL 9011.....	MCM0311B	35
Cable tray, wide (600 mm) with partition for cabinet 1000 mm wide, RAL 7047.....	MCM0327	33
Cable tray, wide (600 mm) with partition for cabinet 1000 mm wide, RAL 9011.....	MCM0327B	33
Cable tray, wide (600 mm) with partition for cabinet 600 mm wide, RAL 7047.....	MCM0302	33
Cable tray, wide (600 mm) with partition for cabinet 600 mm wide, RAL 9011.....	MCM0302B	33
Cable tray, wide (600 mm) with partition for cabinet 800 mm wide, RAL 7047.....	MCM0303	33
Cable tray, wide (600 mm) with partition for cabinet 800 mm wide, RAL 9011.....	MCM0303B	33
Cable tray, wide, for UPS / H2O-650, 600 mm, RAL 7047.....	MCM0502	34
Cable tray, wide, for UPS / H2O-650, 600 mm, RAL 9011.....	MCM0502B	34
Cable tray, wide, for UPS, 800 mm, RAL 7047.....	MCM0503	34
Cable tray, wide, for UPS, 800 mm, RAL 9011.....	MCM0503B	34
Cable tray, wide, for VariCondition H2O/DX 600 mm with partition, RAL 7047.....	MCM0317	34
Cable tray, wide, for VariCondition H2O/DX 600 mm with partition, RAL 9011.....	MCM0317B	34
Cable tray, narrow (200 mm) for cabinet 1000 mm wide, RAL 7047.....	MCM0326	33
Cable tray, narrow (200 mm) for cabinet 1000 mm wide, RAL 9011.....	MCM0326B	33
Cable tray, narrow (200 mm) for cabinet 600 mm wide, RAL 7047.....	MCM0300	33
Cable tray, narrow (200 mm) for cabinet 600 mm wide, RAL 9011.....	MCM0300B	33
Cable tray, narrow (200 mm) for cabinet 800 mm wide, RAL 7047.....	MCM0301	33
Cable tray, narrow (200 mm) for cabinet 800 mm wide, RAL 9011.....	MCM0301B	33
Cable tray, narrow, for UPS / H2O-650, 600 mm, RAL 7047.....	MCM0500	34
Cable tray, narrow, for UPS / H2O-650, 600 mm, RAL 9011.....	MCM0500B	34
Cable tray, narrow, for UPS 800 mm, RAL 7047.....	MCM0501	34
Cable tray, narrow, for UPS, 800 mm, RAL 9011.....	MCM0501B	34
Cable tray, narrow, for VariCondition H2O/DX 200 mm, RAL 7047.....	MCM0316	34
Cable tray, narrow, for VariCondition H2O/DX 200 mm, RAL 9011.....	MCM0316B	34
Cable trunking, sendzimir - 200 mm x 25 U (w x h).....	MCM0124	37
Cable trunking, sendzimir - 200 mm x 41 U (w x h).....	MCM0126	37
Cable trunking, sendzimir - 200 mm x 46 U (w x h).....	MCM0127	37
Cable trunking, sendzimir - 200 mm x 50 U (w x h).....	MCM0128	37
Cable trunking, sendzimir - 300 mm x 25 U (w x h).....	MCM0134	37
Cable trunking, sendzimir - 300 mm x 41 U (w x h).....	MCM0136	37
Cable trunking, sendzimir - 300 mm x 46 U (w x h).....	MCM0137	37
Cable trunking, sendzimir - 300 mm x 50 U (w x h).....	MCM0138	37
Cage nuts, M5 - (20 pcs).....	MFM0001	30
Cage nuts, M5 - (100 pcs).....	MFM0002	30
Cage nuts, M6 - (20 pcs).....	MFM0003	30
Cage nuts, M6 - (100 pcs).....	MFM0004	30
Castors, set of 2 wheels with brakes and 2 wheels without brakes.....	MSM3002	23
Castors, transport castors, set of 2 wheels.....	MSM3010	23
Corner guide rails 1U, 2 pcs - built-in depth 300 - 450 mm.....	MPR0311	25
Corner guide rails 1U, 2 pcs - built-in depth 450 - 750 mm.....	MPR0312	25
Corner guide rails 1U, 2 pcs - built-in depth 740 - 1050 mm.....	MPR0313	25

Covering plate RAL 7047.....	MBM1001	24
Covering plate RAL 9011.....	MBM1001B	24
Cylinder lock.....	MSP0199	49

D

Decorative screw with black washer, M5 - (20 pcs).....	MFM0010	30
Decorative screw with black washer, M5 - (100 pcs).....	MFM0011	30
Decorative screw with black washer, M6 - (20 pcs).....	MFM0012	30
Decorative screw with black washer, M6 - (100 pcs).....	MFM0013	30
Door seal, rubber - door height 41U.....	MFR0006	45
Door seal, rubber - door height 46U.....	MFR0007	45
Door switch.....	MLS0005	25
Drop-Away panels - length 4000 mm, RAL 7047.....	MCS221224	57
Drop-Away panels - length 4000 mm, RAL 9011.....	MCS221224B	57
Drop-Away panels - length 6000 mm, RAL 7047.....	MCS221226	57
Drop-Away panels - length 6000 mm, RAL 9011.....	MCS221226B	57
Drop-Away panels - length 8000 mm, RAL 7047.....	MCS221228	57
Drop-Away panels - length 8000 mm, RAL 9011.....	MCS221228B	57
Drop-Away panels - length 9600 mm, RAL 7047.....	MCS221229	57
Drop-Away panels - length 9600 mm, RAL 9011.....	MCS221229B	57
Duopac stand-alone and wall enclosure - 530 x 450 x 207 mm/3U (w x d x h).....	DUO.034515	54
Duopac stand-alone and wall enclosure - 530 x 450 x 343 mm/6U (w x d x h).....	DUO.064515	54
Duopac stand-alone and wall enclosure - 530 x 450 x 516 mm/9U (w x d x h).....	DUO.094515	54

E

Earthing, copper earth rail - 20 x 5 x 1800 mm/73ME (w x d x h).....	MER0106	24
Earthing, copper earth rail - 20 x 5 x 2000 mm/81ME (w x d x h).....	MER0107	24
End plate for wide cable tray, RAL 7047.....	MCM0321	35
End plate for wide cable tray, RAL 9011.....	MCM0321B	35
End plate for narrow cable tray, RAL 7047.....	MCM0320	35
End plate for narrow cable tray, RAL 9011.....	MCM0320B	35
Expansion set, 100 mm, for 2000 mm/41U frame - 800 mm (w) RAL 7047.....	VMF208010	22
Expansion set, 100 mm, for 2200 mm/46U frame - 600 mm (w) RAL 7047.....	VMF226010	22
Expansion set, 100 mm, for 2200 mm/46U frame - 800 mm (w) RAL 7047.....	VMF228010	22

F

Fan unit, IEC, triple, with cabling, RAL 7047.....	MCS1004	24
Fan unit, IEC, triple, with cabling, RAL 9011.....	MCS1004B	24

Fibre-optic cable guide with controlled radius of curvature, left.....	MCM0023	37
Fibre-optic cable guide with controlled radius of curvature, right.....	MCM0024	37
Free Standing Corridor flexible steel panel - 175-100 x 2200 mm (w x h) RAL 7047	MCS3625	58
Free Standing Corridor flexible steel panel - 175-100 x 2200 mm (w x h) RAL 9011	MCS3625B	58
Free Standing Corridor flexible steel panel - 275-150 x 2200 mm (w x h) RAL 7047.....	MCS3626	58
Free Standing Corridor flexible steel panel - 275-150 x 2200 mm (w x h) RAL 9011.....	MCS3626B	58
Free Standing Corridor flexible steel panel - 350-250 x 2200 mm (w x h) RAL 7047	MCS3627	58
Free Standing Corridor flexible steel panel - 350-250 x 2200 mm (w x h) RAL 9011.....	MCS3627B	58
Free Standing Corridor flexible steel panel - 400-300 x 2200 mm (w x h) RAL 7047.....	MCS3628	58
Free Standing Corridor flexible steel panel - 400-300 x 2200 mm (w x h) RAL 9011.....	MCS3628B	58
Free Standing Corridor flexible steel panel - 175-100 x 2400 mm (w x h) RAL 7047	MCS3645	58
Free Standing Corridor flexible steel panel - 175-100 x 2400 mm (w x h) RAL 9011	MCS3645B	58
Free Standing Corridor flexible steel panel - 275-150 x 2400 mm (w x h) RAL 7047	MCS3646	58
Free Standing Corridor flexible steel panel - 275-150 x 2400 mm (w x h) RAL 9011	MCS3646B	58
Free Standing Corridor flexible steel panel - 350-250 x 2400 mm (w x h) RAL 7047	MCS3647	58
Free Standing Corridor flexible steel panel - 350-250 x 2400 mm (w x h) RAL 9011	MCS3647B	58
Free Standing Corridor flexible steel panel - 400-300 x 2400 mm (w x h) RAL 7047	MCS3648	58
Free Standing Corridor flexible steel panel - 400-300 x 2400 mm (w x h) RAL 9011	MCS3648B	58
Free Standing Corridor foam, 50 x 2200 mm (w x h)	MCS3621	59
Free Standing Corridor foam, 50 x 2400 mm (w x h)	MCS3641	59
Free Standing Corridor steel side filler - 50-70 x 2200 mm (w x h) RAL 7047	MCS3622	59
Free Standing Corridor steel side filler - 50-70 x 2200 mm (w x h) RAL 9011	MCS3622B	59
Free Standing Corridor steel side filler - 70-90 x 2200 mm (w x h) RAL 7047	MCS3623	59
Free Standing Corridor steel side filler - 70-90 x 2200 mm (w x h) RAL 9011	MCS3623B	59
Free Standing Corridor steel side filler - 90-110 x 2200 mm (w x h) RAL 7047	MCS3624	59
Free Standing Corridor steel side filler - 90-110 x 2200 mm (w x h) RAL 9011	MCS3624B	59
Free Standing Corridor top filler HPL package XL 1100 x 1300 mm (w x h), RAL 7047	MCS5161	59
Free Standing Corridor top filler HPL package XL 1100 x 1300 mm (w x h), RAL 9011.....	MCS5161B	59
Free Standing Corridor top filler HPL package L 1100 x 920 mm (w x h), RAL 7047	MCS5162	59
Free Standing Corridor top filler HPL package L 1100 x 920 mm (w x h), RAL 9011	MCS5162B	59
Free Standing Corridor top filler HPL package M 900 x 620 mm (w x h), RAL 7047	MCS5163	59
Free Standing Corridor top filler HPL package M 900 x 620 mm (w x h), RAL 9011	MCS5163B	59
Free Standing Corridor top filler HPL package S 900 x 320 mm (w x h), RAL 7047	MCS5164	59
Free Standing Corridor top filler HPL package S 900 x 320 mm (w x h), RAL 9011	MCS5164B	59
Free Standing Corridor panel 325 x 2200 mm (w x h), RAL 7047	MCS3337	58
Free Standing Corridor panel 325 x 2200 mm (w x h), RAL 9011	MCS3337B	58
Free Standing Corridor panel 325 x 2400 mm (w x h), RAL 7047	MCS3338	58
Free Standing Corridor panel 325 x 2400 mm (w x h), RAL 9011	MCS3338B	58
Free Standing Corridor panel 600 x 2200 mm (w x h), RAL 7047	MCS3367	58
Free Standing Corridor panel 600 x 2200 mm (w x h), RAL 9011.....	MCS3367B	58
Free Standing Corridor panel 600 x 2400 mm (w x h), RAL 7047	MCS3368	58
Free Standing Corridor panel 600 x 2400 mm (w x h), RAL 9011	MCS3368B	58
Front plate, MFE - 19 inch x 1 mm x 1 U (w x d x h) RAL 7047.....	MFE0101	45
Front plate, MFE - 19 inch x 1 mm x 1 U (w x d x h) RAL 9011.....	MFE0101B	45

Front plate, MFE - 19 inch x 1 mm x 2 U (w x d x h) RAL 7047.....	MFE0102	45
Front plate, MFE - 19 inch x 1 mm x 2 U (w x d x h) RAL 9011.....	MFE0102B	45
Front plate, MFE - 19 inch x 1 mm x 3 U (w x d x h) RAL 7047.....	MFE0103	45
Front plate, MFE - 19 inch x 1 mm x 3 U (w x d x h) RAL 9011.....	MFE0103B	45
Front plate, MFE - 19 inch x 1 mm x 6 U (w x d x h) RAL 7047.....	MFE0104	45
Front plate, MFE - 19 inch x 1 mm x 6 U (w x d x h) RAL 9011.....	MFE0104B	45
Front plate, MFE - 19 inch x 1 mm x 9 U (w x d x h) RAL 7047.....	MFE0105	45
Front plate, MFE - 19 inch x 1 mm x 9 U (w x d x h) RAL 9011.....	MFE0105B	45
Front plate 6x, MFE - 19 inch x 1 mm x 1 U (w x d x h) RAL 7047.....	MFE0111	45
Front plate 6x, MFE - 19 inch x 1 mm x 1 U (w x d x h) RAL 9011.....	MFE0111B	45
Front plate 6x, MFE - 19 inch x 1 mm x 2 U (w x d x h) RAL 7047.....	MFE0112	45
Front plate 6x, MFE - 19 inch x 1 mm x 2 U (w x d x h) RAL 9011.....	MFE0112B	45
Front plates, MFE - mix totalling 240 U in RAL 7047.....	MFE1120	45
Front plates, MFE - mix totalling 240 U in RAL 9011.....	MFE1120B	45
Front plate, plastic RAL9005, 25 pcs.....	MFE1105	46

H

High Transparency Roof - length 4000 mm, RAL 7047.....	MCS221214	57
High Transparency Roof - length 4000 mm, RAL 9011.....	MCS221214B	57
High Transparency Roof - length 6000 mm, RAL 7047.....	MCS221216	57
High Transparency Roof - length 6000 mm, RAL 9011.....	MCS221216B	57
High Transparency Roof - length 8000 mm, RAL 7047.....	MCS221218	57
High Transparency Roof - length 8000 mm, RAL 9011.....	MCS221218B	57
High Transparency Roof - length 9600 mm, RAL 7047.....	MCS221219	57
High Transparency Roof - length 9600 mm, RAL 9011.....	MCS221219B	57
High volume cable guides 3 U module.....	MCM2021	38
High volume cable guides 6 U module.....	MCM2022	38

L

LED lighting 120 cm wide	MCS4011	62
LED lighting 120 cm wide with PIR sensor	MCS4012	62
LED lighting power cable, 4 metres, C14 connection	MCS4021	62
LED lighting, plastic cover + power cable 10 cm, male-female connector	MCS4022	62
LED lighting, start and end panel kit 1200 mm - RAL 7047	MCS4013	62
LED lighting, start and end panel kit 1200 mm - RAL 9011	MCS4013B	62
LED lighting, start and end panel kit 1800 mm - RAL 7047	MCS4014	62
LED lighting, start and end panel kit 1800 mm - RAL 9011.....	MCS4014B	62
Lighting, fluorescent with earthed socket, 19 inch - 483 x 41 mm (w x h).....	MLS0001	25
Lock, blank stopper for swivel handle.....	MLK9001	49
Lock, EK-333 cylinder lock for swivel handle.....	MLK9003	49

M

MatrixCube basic configuration 16A (2.5 kW/server rack).....	MXC1600**	74
MatrixCube basic configuration 32A (5 kW/server rack).....	MXC3200**	74
MatrixCube expansion module: server rack 16A (+ UPS)	MXC1610**	75
MatrixCube expansion module: server rack 32A (+ UPS)	MXC3210**	75
MatrixCube expansion module: power distribution rack 16A (without monitoring)	MXC1620**	75
MatrixCube expansion module: power distribution rack 32A (without monitoring)	MXC3220**	75
MatrixCube expansion module: VariCondition-DX 11 kW	MXC1001**	75
MatrixCube expansion module: VariCondition-DX 22 kW	MXC1002**	75
MatrixCube expansion module: VariCondition-DX 11 kW end-of-row.....	MXC1003	75
MatrixCube expansion module: VariCondition-DX 22 kW end-of-row	MXC1004	75
MatrixCube expansion module: extended UPS set	MXC2001	75
MatrixCube expansion module: extended UPS autonomy - battery tray (per UPS)	MXC2002	75
MatrixCube expansion module: set of cable trays suitable for the server rack	MXC3002	75
MatrixCube expansion module: set of cable trays suitable for the power rack	MXC3003	75
Minkels Integration Rack - cable fitting strip - 41U - RAL 9011.....	MIR0101	18
Minkels Integration Rack - cable fitting strip - 46U - RAL 9011.....	MIR0110	18
Minkels Integration Rack - cable management panel - 41U - RAL 9011.....	MIR0201	18
Minkels Integration Rack - cable management panel - 46U - RAL 9011.....	MIR0210	18
Minkels Integration Rack - 2000 x 800 x 1000 mm (h x w x d) - RAL 9011 - OL150..	MIR208010-02CB	19
Minkels Integration Rack - 2000 x 800 x 1000 mm (h x w x d) - RAL 9011 - OL62.5..	MIR208010-01CB	19
Minkels Integration Rack - 2000 x 800 x 1200 mm (h x w x d) - RAL 9011 - CL250..	MIR208012-03CB	19
Minkels Integration Rack - 2000 x 800 x 1200 mm (h x w x d) - RAL 9011 - OL150..	MIR208012-02CB	19
Minkels Integration Rack - 2000 x 800 x 1200 mm (h x w x d) - RAL 9011 - OL62.5..	MIR208012-01CB	19
Minkels Integration Rack - 2200 x 800 x 1000 mm (h x w x d) - RAL 9011 - OL150..	MIR228010-02CB	19
Minkels Integration Rack - 2200 x 800 x 1000 mm (h x w x d) - RAL 9011 - OL62.5..	MIR228010-01CB	19
Minkels Integration Rack - 2200 x 800 x 1200 mm (h x w x d) - RAL 9011 - CL250..	MIR228012-03CB	19
Minkels Integration Rack - 2200 x 800 x 1200 mm (h x w x d) - RAL 9011 - OL150..	MIR228012-02CB	19
Minkels Integration Rack - 2200 x 800 x 1200 mm (h x w x d) - RAL 9011 - OL62.5..	MIR228012-01CB	19
MiniCube 2 kW - basic configuration	MIC2000	76
MiniCube 3,5 kW - advanced configuration	MIC3500A	76
MiniCube 3,5 kW - advanced configuration, automatic door opener.....	MIC3510A	76
MiniCube expansion module: SNMP & Modbus communication card for UPS.....	MIC1010	77
MiniCube expansion module: Legrand PDU, C13 (20) and C19 (4)	MIC1020	77
MiniCube expansion module: Legrand 19-inch PDU, SCHUKO (9)	MIC1040	77
MiniCube expansion module: Legrand 19-inch PDU, UTE (9)	MIC1050	77
MiniCube expansion module: Legrand 19-inch PDU, BS1363 (7)	MIC1060	77
MiniCube expansion module: Legrand 19-inch PDU, T23 (10)	MIC1070	77
MiniCube expansion module: Raritan PXE-1493T-A6K1, MCB 16A (2), C13 (20) and C19(4)	MIC1030	77
Monitoring dome camera with pan/tilt control (USB).....	MRM0131	70
Monitoring universal camera (USB).....	MRM0130	70
Monitoring 4-20mA signal converter.....	MRM0116	71

Monitoring AC voltage detector.....	MRM0112	71
Monitoring GPRS modem for text alerts (only with Pro controller).....	MRM0042	69
Monitoring Pro controller (ports for 8 sensors, 20 dry contacts and 2 extensions).....	MRM0020LS	69
Monitoring Pro controller (ports for 8 sensors, 60 dry contacts and 2 extensions).....	MRM0030LS	69
Monitoring Pro controller with ports for 8 sensors and 2 extensions.....	MRM0010LS	69
Monitoring Pro controller with ports for 8 sensors, 4 cameras and 2 extensions.....	MRM0011L	69
Monitoring motion sensor.....	MRM0110	70
Monitoring controller with 2 sensor ports (incl. 1 temperature sensor).....	MRM0001	69
Monitoring controller with 4 sensor ports.....	MRM0003	69
Monitoring controller with ports for 8 sensors and 20 dry contacts.....	MRM0020	69
Monitoring controller with ports for 8 sensors and 60 dry contacts.....	MRM0030	69
Monitoring controller with 8 sensor ports.....	MRM0010	69
Monitoring dry contact sensor (adapter).....	MRM0132	70
Monitoring dry contact sensor with 8 ports (only with Pro controller).....	MRM0124	70
Monitoring extension controller with 16 dry contact ports.....	MRM0040	69
Monitoring extension controller with 8 sensor ports.....	MRM0041	69
Monitoring airflow sensor.....	MRM0109	70
Monitoring air humidity and temperature sensor.....	MRM0117	70
Monitoring magnetic door switch, 4m cable and installation materials.....	MRM0128	71
Monitoring smoke detector.....	MRM0111	70
Monitoring controlled relay sensor.....	MRM0114	71
Monitoring siren and flashing light.....	MRM0119	70
Monitoring temp sensor (daisy chain max. 8 sensors, only with a Pro controller).....	MRM0122	70
Monitoring temperature sensor.....	MRM0118	70
Monitoring temperature sensor with fixed cable (1 m).....	MRM0101	70
Monitoring temperature sensor with fixed cable (2.5 m).....	MRM0102	70
Monitoring water leak detection loop (3.3 m).....	MRM0127	70
Monitoring water leak detection loop extension (3.3 m).....	MRM0126	70
Monitoring water leak detector with fixed cable (3.3 m).....	MRM0125	70
Monitoring water leak detector with fixed cable (4.5 m).....	MRM0105	70
MWE, 19-inch profiles, set of 2 pcs - 6U (h).....	MWEPR06	51
MWE, 19-inch profiles, set of 2 pcs - 9U (h).....	MWEPR09	51
MWE, 19-inch profiles, set of 2 pcs - 12U (h).....	MWEPR12	51
MWE, 19-inch profiles, set of 2 pcs - 15U (h).....	MWEPR15	51
MWE, 19-inch profiles, set of 2 pcs - 21U (h).....	MWEPR21	51
MWE, roof plate with integrated fan unit - 525 mm (d).....	MWEFP525	52
MWE, roof plate with integrated fan unit - 625 mm (d).....	MWEFP625	52
MWE, corner guide set - 1U (h).....	MWECS01	53
MWE, cable conduit brush.....	MWECS01	53
MWE, power strip, earthed, 6-way.....	MWEPS01	52
MWE, wall enclosure with glass door - 600 x 425 x 342 mm/6U (w x d x h).....	MWE06425G	51
MWE, wall enclosure with glass door - 600 x 525 x 342 mm/6U (w x d x h).....	MWE06525G	51
MWE, wall enclosure with glass door - 600 x 525 x 476 mm/9U (w x d x h).....	MWE09525G	51
MWE, wall enclosure with glass door - 600 x 525 x 609 mm/12U (w x d x h).....	MWE12525G	51

MWE, wall enclosure with glass door - 600 x 525 x 742 mm/15U (w x d x h).....	MWE15525G	51
MWE, wall enclosure with glass door - 600 x 625 x 476 mm/9U (w x d x h).....	MWE09625G	51
MWE, wall enclosure with glass door - 600 x 625 x 609 mm/12U (w x d x h).....	MWE12625G	51
MWE, wall enclosure with glass door - 600 x 625 x 742 mm/15U (w x d x h).....	MWE15625G	51
MWE, wall enclosure with glass door - 600 x 625 x 1009 mm/21U (w x d x h).....	MWE21625G	51
MWE, 16x wall enclosure with glass door - 600 x 525 x 476 mm/9U (w x d x h).....	MWP09525P	51
MWE, 16x wall enclosure with glass door - 600 x 625 x 476 mm/9U (w x d x h).....	MWP09625P	51
MWE, 16x wall enclosure with glass door - 600 x 525 x 609 mm/12U (w x d x h).....	MWP12525G	51
MWE, 16x wall enclosure with glass door - 600 x 625 x 609 mm/12U (w x d x h).....	MWP12625G	51
MWE, 16x wall enclosure with glass door - 600 x 525 x 742 mm/15U (w x d x h).....	MWP15525G	51
MWE, 8x wall enclosure with glass door - 600 x 625 x 1009 mm/21U (w x d x h).....	MWP21625	51

N

Next Generation Corridor panel system 300 x 2000 x 25 mm (w x h x d), RAL 7047	MCS5111	60
Next Generation Corridor panel system 300 x 2000 x 25 mm (w x h x d), RAL 9011	MCS5111B	60
Next Generation Corridor panel system 600 x 2000 x 25 mm (w x h x d), RAL 7047	MCS5112	60
Next Generation Corridor panel system 600 x 2000 x 25 mm (w x h x d), RAL 9011	MCS5112B	60
Next Generation Corridor panel system 800 x 2000 x 25 mm (w x h x d), RAL 7047	MCS5113	60
Next Generation Corridor panel system 800 x 2000 x 25 mm (w x h x d), RAL 9011	MCS5113B	60
Next Generation Corridor panel system 1200 x 2000 x 25 mm (w x h x d), RAL 7047	MCS5114	60
Next Generation Corridor panel system 1200 x 2000 x 25 mm (w x h x d), RAL 9011	MCS5114B	60
Next Generation Corridor panel system 300 x 2075 x 25 mm (w x h x d), RAL 7047	MCS5121	60
Next Generation Corridor panel system 300 x 2075 x 25 mm (w x h x d), RAL 9011	MCS5121B	60
Next Generation Corridor panel system 600 x 2075 x 25 mm (w x h x d), RAL 7047	MCS5122	60
Next Generation Corridor panel system 600 x 2075 x 25 mm (w x h x d), RAL 9011	MCS5122B	60
Next Generation Corridor panel system 800 x 2075 x 25 mm (w x h x d), RAL 7047	MCS5123	60
Next Generation Corridor panel system 800 x 2075 x 25 mm (w x h x d), RAL 9011	MCS5123B	60
Next Generation Corridor panel system 1200 x 2075 x 25 mm (w x h x d), RAL 7047	MCS5124	60
Next Generation Corridor panel system 1200 x 2075 x 25 mm (w x h x d), RAL 9011	MCS5124B	60
Next Generation Corridor panel system 300 x 2200 x 25 mm (w x h x d), RAL 7047	MCS5131	60
Next Generation Corridor panel system 300 x 2200 x 25 mm (w x h x d), RAL 9011	MCS5131B	60
Next Generation Corridor panel system 600 x 2200 x 25 mm (w x h x d), RAL 7047	MCS5132	60
Next Generation Corridor panel system 600 x 2200 x 25 mm (w x h x d), RAL 9011	MCS5132B	60
Next Generation Corridor panel system 800 x 2200 x 25 mm (w x h x d), RAL 7047	MCS5133	60
Next Generation Corridor panel system 800 x 2200 x 25 mm (w x h x d), RAL 9011	MCS5133B	60
Next Generation Corridor panel system 1200 x 2200 x 25 mm (w x h x d), RAL 7047	MCS5134	60
Next Generation Corridor panel system 1200 x 2200 x 25 mm (w x h x d), RAL 9011	MCS5134B	60
Next Generation Corridor panel system 300 x 2275 x 25 mm (w x h x d), RAL 7047	MCS5141	60
Next Generation Corridor panel system 300 x 2275 x 25 mm (w x h x d), RAL 9011	MCS5141B	60
Next Generation Corridor panel system 600 x 2275 x 25 mm (w x h x d), RAL 7047	MCS5142	60
Next Generation Corridor panel system 600 x 2275 x 25 mm (w x h x d), RAL 9011	MCS5142B	60
Next Generation Corridor panel system 800 x 2275 x 25 mm (w x h x d), RAL 7047	MCS5143	60

Next Generation Corridor panel system 800 x 2275 x 25 mm (w x h x d), RAL 9011	MCS5143B	60
Next Generation Corridor panel system 1200 x 2275 x 25 mm (w x h x d), RAL 7047	MCS5144	60
Next Generation Corridor panel system 1200 x 2275 x 25 mm (w x h x d), RAL 9011	MCS5144B	60
Next Generation Corridor panel system 300 x 2400 x 25 mm (w x h x d), RAL 7047	MCS5151	60
Next Generation Corridor panel system 300 x 2400 x 25 mm (w x h x d), RAL 9011	MCS5151B	60
Next Generation Corridor panel system 600 x 2400 x 25 mm (w x h x d), RAL 7047	MCS5152	60
Next Generation Corridor panel system 600 x 2400 x 25 mm (w x h x d), RAL 9011	MCS5152B	60
Next Generation Corridor panel system 800 x 2400 x 25 mm (w x h x d), RAL 7047	MCS5153	60
Next Generation Corridor panel system 800 x 2400 x 25 mm (w x h x d), RAL 9011	MCS5153B	60
Next Generation Corridor panel system 1200 x 2400 x 25 mm (w x h x d), RAL 7047	MCS5154	60
Next Generation Corridor panel system 1200 x 2400 x 25 mm (w x h x d), RAL 9011	MCS5154B	60

P

Partition panel - 1000 mm x 41U (d x h), Sendzimir.....	MTP0306	22
Partition panel - 1000 mm x 46U (d x h), Sendzimir.....	MTP0307	22
Partition panel - 1000 mm x 50U (d x h), Sendzimir.....	MTP0308	22
Partition panel - 1200 mm x 41U (d x h), Sendzimir.....	MTP0406	22
Partition panel - 1200 mm x 46U (d x h), Sendzimir.....	MTP0407	22
Partition panel - 1200 mm x 50U (d x h), Sendzimir.....	MTP0408	22
Partition panel - 3x 60 mm - 1000 mm x 41U (d x h), Sendzimir.....	MTP1306	22
Partition panel - 3x 60 mm - 1000 mm x 46U (d x h), Sendzimir.....	MTP1307	22
Partition panel - 3x 60 mm - 1000 mm x 50U (d x h), Sendzimir.....	MTP1308	22
Partition panel - 3x 60 mm - 1200 mm x 41U (d x h), Sendzimir.....	MTP1406	22
Partition panel - 3x 60 mm - 1200 mm x 46U (d x h), Sendzimir.....	MTP1407	22
Partition panel - 3x 60 mm - 1200 mm x 50U (d x h), Sendzimir.....	MTP1408	22
Partition strip for cable tray, UPS / H2O-650, 600 mm, RAL 7047.....	MCM0504	34
Partition strip for cable tray, UPS / H2O-650, 600 mm, RAL 9011.....	MCM0504B	34
Partition strip for cable tray, UPS, 800 mm, RAL 7047.....	MCM0505	34
Partition strip for cable tray, UPS, 800 mm, RAL 9011.....	MCM0505B	34
Partition strip for cable tray, for VariCondition H2O/DX 300 mm, RAL 7047.....	MCM0414	34
Partition strip for cable tray, for VariCondition H2O/DX 300 mm, RAL 9011.....	MCM0414B	34
Partition strip for cable tray, wide (600 mm), for cabinet 600 mm wide, RAL 7047.....	MCM0331	33
Partition strip for cable tray, wide (600 mm), for cabinet 600 mm wide, RAL 9011.....	MCM0331B	33
Partition strip for cable tray, wide (600 mm), for cabinet 800 mm wide, RAL 7047.....	MCM0332	33
Partition strip for cable tray, wide (600 mm), for cabinet 800 mm wide, RAL 9011.....	MCM0332B	33
Partition strip for cable tray, wide (600 mm), for cabinet 1000 mm wide, RAL 7047.....	MCM0333	33
Partition strip for cable tray, wide (600 mm), for cabinet 1000 mm wide, RAL 9011.....	MCM0333B	33
PDU, basic, Legrand branding, SCHUKO (6)	646806	65
PDU, basic, Legrand branding, SCHUKO (14)	LPS0004	65
PDU, basic, Legrand branding, UTE (14)	LPS1004	65
PDU, basic, Legrand branding, UTE (9) with power indicator light.....	646820	65
PDU, basic, Legrand branding, SCHUKO (9) with power indicator light.....	646821	65

PDU, basic, Legrand branding, UTE (6).....	646840	65
PDU, basic, Legrand branding, SCHUKO (6).....	646841	65
PDU, basic, Legrand branding, BS1363 (8).....	646813	65
PDU, basic, Legrand branding, C13 (12).....	646815	65
PDU, basic, Legrand branding, SCHUKO (24) and MCB (2).....	646853	65
PDU, basic, Legrand branding, MCB (2), C13 (20) and C19 (4).....	646861	65
PDU, basic, Legrand branding, C13 (30) and C19 (12)	LPS8001	65
PDU, basic, Legrand branding, MCB 16A (3), C13 (14) and C19 (12)	LPS9002	65
PDU, intelligent, Raritan branding, IEC C13 (8).....	PXE-1190R	66
PDU, intelligent, Raritan branding, IEC C13 (20) and IEC C19 (4)	PXE-1488	66
PDU, intelligent, Raritan branding, IEC C13 (16).....	PXE-1392	66
PDU, intelligent, Raritan branding, 16A MCBs (2), IEC C13 (20) and IEC C19 (4).....	PXE-1493	66
PDU, intelligent, Raritan branding, 16A MCBs (2), IEC C13 (36) and IEC C19 (6).....	PXE-1847	66
PDU, intelligent, Raritan branding, IEC C13 (36) and IEC C19 (6)	PXE-1966	67
PDU, air humidity and temperature sensor, Raritan branding	DPX2-T1H1	67
PDU, air humidity and temperature sensor, Raritan branding	DPX2-T3H1	67
PDU, output blocking Schuko/UTE	646890	65
PDU, output blocking BS1363	646892	65
PDU, output blocking C13	646894	65
PDU, output blocking C19	646895	65
PDU, toolless assembly bracket for 1 vertical Raritan PDU.....	LPS0091	65
PDU, toolless assembly bracket for 2 vertical Raritan PDUs	LPS0092	65
PDU, assembly bracket for 1 vertical Legrand PDU.....	LPS0093	65
PDU, assembly bracket for 2 vertical Legrand PDUs	LPS0094	65
Pedestal, anchoring set - 1 point.....	MSM4100	24
Plinth 25 mm front/back, blank - 600 mm (b) RAL 7047.....	MSM1101	22
Plinth 25 mm front/back, blank - 600 mm (b) RAL 9011.....	MSM1101B	22
Plinth 25 mm front/back, blank - 800 mm (b) RAL 7047.....	MSM1201	22
Plinth 25 mm front/back, blank - 800 mm (b) RAL 9011.....	MSM1201B	22
Plinth 25 mm side, blank - 800 mm (d) RAL 7047.....	MSM1203	23
Plinth 25 mm side, blank - 800 mm (d) RAL 9011.....	MSM1203B	23
Plinth 25 mm side, blank - 1000 mm (d) RAL 7047.....	MSM1403	23
Plinth 25 mm side, blank - 1000 mm (d) RAL 9011.....	MSM1403B	23
Plinth 25 mm side, blank - 1200 mm (d) RAL 7047.....	MSM1503	23
Plinth 25 mm side, blank - 1200 mm (d) RAL 9011.....	MSM1503B	23
Profiles, numbering strip for 19-inch profile 46U (h).....	MPR0060	30

S

Seal front/back 2U, sliding, 450 - 550 mm.....	MRS0102	17
Seal front/back 2U, sliding, 550 - 650 mm.....	MRS0112	17
Seal front/back 2U, sliding, 650 - 850 mm.....	MRS0122	17
Seal front/back 3U, sliding, 450 - 550 mm.....	MRS0103	17

Seal front/back 3U, sliding, 550 - 650 mm.....	MRS0113	17
Seal front/back 3U, sliding, 650 - 850 mm.....	MRS0123	17
Sealing plate for side sealing plate cut-away, RAL 7047.....	MCS5001	47
Sealing plate for side sealing plate cut-away, RAL 9011.....	MCS5001B	47
Server and network rack - 600 x 1000 x 2000 mm/41U (w x d x h) RAL 7047.....	VME206010S	14
Server and network rack - 600 x 1000 x 2000 mm/41U (w x d x h) RAL 9011.....	VME206010SB	14
Server and network rack - 800 x 1000 x 1300 mm/25U (w x d x h) RAL 7047.....	VME138010S	14
Server and network rack - 800 x 1000 x 1300 mm/25U (w x d x h) RAL 9011.....	VME138010SB	14
Server and network rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 7047.....	VME208010C	15
Server and network rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 7047.....	VME208010S	15
Server and network rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 9011.....	VME208010CB	15
Server and network rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 9011.....	VME208010SB	15
Server and network rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 7047.....	VME228010C	15
Server and network rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 7047.....	VME228010S	15
Server and network rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 9011.....	VME228010CB	15
Server and network rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 9011.....	VME228010SB	15
Server and network rack - 800 x 1200 x 2000 mm/41U (w x d x h) RAL 7047.....	VME208012S	15
Server and network rack - 800 x 1200 x 2000 mm/41U (w x d x h) RAL 9011.....	VME208012SB	15
Server and network rack - 800 x 800 x 1300 mm/25U (w x d x h) RAL 7047.....	VME138080S	14
Server and network rack - 800 x 800 x 1300 mm/25U (w x d x h) RAL 9011.....	VME138080SB	14
Server and network rack - 800 x 800 x 2000 mm/41U (w x d x h) RAL 7047.....	VME208080C	14
Server and network rack - 800 x 800 x 2000 mm/41U (w x d x h) RAL 7047.....	VME208080S	14
Server and network rack - 800 x 800 x 2000 mm/41U (w x d x h) RAL 9011.....	VME208080SB	14
Server and network rack - 800 x 800 x 2200 mm/46U (w x d x h) RAL 7047.....	VME228080C	15
Server and network rack - 800 x 800 x 2200 mm/46U (w x d x h) RAL 7047.....	VME228080S	15
Server and network rack - 800 x 800 x 2200 mm/46U (w x d x h) RAL 9011.....	VME228080SB	15
Server and network rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 7047.....	VMD208010C	13
Server and network rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 9011.....	VMD208010CB	13
Server and network rack - 800 x 1200 x 2000 mm/41U (w x d x h) RAL 7047.....	VMD208012C	13
Server and network rack - 800 x 1200 x 2000 mm/41U (w x d x h) RAL 9011.....	VMD208012CB	13
Server and network rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 7047.....	VMD228010C	13
Server and network rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 9011.....	VMD228010CB	13
Server and network rack - 800 x 1200 x 2200 mm/46U (w x d x h) RAL 7047.....	VMD228012C	13
Server and network rack - 800 x 1200 x 2200 mm/46U (w x d x h) RAL 9011.....	VMD228012CB	13
Shelf, MFE - 19 inch x 250 x 18.5 mm (w x d x h) RAL 7047.....	MFE0001	28
Shelf, MFE - 19 inch x 500 x 18.5 mm (w x d x h) RAL 7047.....	MFE0003	28
Shelf, MFE - 19 inch x 500 x 18.5 mm (w x d x h) RAL 9011.....	MFE0003B	28
Shelf, MFE - 19 inch x 650 x 18.5 mm (w x d x h) RAL 7047.....	MFE0004	28
Shelf, MFE - 19 inch x 650 x 18.5 mm (w x d x h) RAL 9011.....	MFE0004B	28
Shelf, cantilever - 19 inch x 250 mm x 2U (w x d x h) RAL 7047.....	MPL0311	28
Shelf, cantilever - 19 inch x 350 mm x 2U (w x d x h) RAL 7047.....	MPL0312	28
Shelf, cantilever - 19 inch x 350 mm x 2U (w x d x h) RAL 9011.....	MPL0312B	28
Shelf, telescopic - 19 inch x 500 x 55 mm (w x d x h) RAL 7047.....	MPL0112	29
Shelf, telescopic - 19 inch x 700 x 55 mm (w x d x h) RAL 7047.....	MPL0113	29

Shelf, variable - 19 inch x 350 x 12 mm (w x d x h) RAL 7047.....	MPL0011	27
Shelf, variable - 19 inch x 500 x 12 mm (w x d x h) RAL 7047.....	MPL0012	27
Shelf, variable - 19 inch x 700 x 12 mm (w x d x h) RAL 7047.....	MPL0013	27
Shelf, variable 100 kg - 19 inch x 700 x 25 mm (w x d x h) RAL 7047.....	MPL0014	27
Shelf, variable 100 kg - 19 inch x 700 x 25 mm (w x d x h) RAL 9011.....	MPL0014B	27
Shelf, variable 100 kg - 19 inch x 800 x 25 mm (w x d x h) RAL 7047	MPL0015	27
Shelf, variable 100 kg - 19 inch x 800 x 25 mm (w x d x h) RAL 9011.....	MPL0015B	27
Side plate sealing set - foam - UL94 41/46 U.....	MCS0011	45
Side plate sealing set - foam - UL94 - 50 U.....	MCS0012	45
Side panel - 1000 mm x 41U (d x h) RAL 7047.....	MSP0306	21
Side panel - 1000 mm x 41U (d x h) RAL 9011.....	MSP0306B	21
Side panel - 1000 mm x 46U (d x h) RAL 7047.....	MSP0307	21
Side panel - 1000 mm x 46U (d x h) RAL 9011.....	MSP0307B	21
Side panel - 1000 mm x 50U (d x h) RAL 7047.....	MSP0308	21
Side panel - 1000 mm x 50U (d x h) RAL 9011.....	MSP0308B	21
Side panel - 1200 mm x 41U (d x h) RAL 7047.....	MSP0406	21
Side panel - 1200 mm x 41U (d x h) RAL 9011.....	MSP0406B	21
Side panel - 1200 mm x 46U (d x h) RAL 7047.....	MSP0407	21
Side panel - 1200 mm x 46U (d x h) RAL 9011.....	MSP0407B	21
Side panel - 1200 mm x 50U (d x h) RAL 7047.....	MSP0408	21
Side panel - 1200 mm x 50U (d x h) RAL 9011.....	MSP0408B	21
Side panel - 800 mm x 41U (d x h) RAL 7047.....	MSP0106	21
Side panel - 800 mm x 41U (d x h) RAL 9011.....	MSP0106B	21
Side panel - 800 mm x 46U (d x h) RAL 7047.....	MSP0107	21
Side panel - 800 mm x 46U (d x h) RAL 9011.....	MSP0107B	21
Sliding door, self-closing, for aisle containment, RAL 7047	MCS221220	61
Sliding door, self-closing, for aisle containment, RAL 9011	MCS221220B	61
Sliding door, extension beam, RAL 7047	MCS6035	61
Sliding door, extension beam, RAL 9011	MCS6035B	61
Switching and routing rack - 1000 x 1200 x 2000 mm/41U (w x d x h) RAL 7047.....	MRS201012	17
Switching and routing rack - 1000 x 1200 x 2000 mm/41U (w x d x h) RAL 9011.....	MRS201012B	17
Switching and routing rack - 1000 x 1200 x 2200 mm/46U (w x d x h) RAL 7047.....	MRS221012	17
Switching and routing rack - 1000 x 1200 x 2200 mm/46U (w x d x h) RAL 9011.....	MRS221012B	17
Switching and routing rack - 1000 x 1200 x 2400 mm/50U (w x d x h) RAL 7047.....	MRS241012	17
Switching and routing rack - 1000 x 1200 x 2400 mm/50U (w x d x h) RAL 9011.....	MRS241012B	17
Switching and routing rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 7047.....	MRS208010	17
Switching and routing rack - 800 x 1000 x 2000 mm/41U (w x d x h) RAL 9011.....	MRS208010B	17
Switching and routing rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 7047.....	MRS228010	17
Switching and routing rack - 800 x 1000 x 2200 mm/46U (w x d x h) RAL 9011.....	MRS228010B	17
Switching and routing rack - 800 x 1000 x 2400 mm/50U (w x d x h) RAL 7047.....	MRS248010	17
Switching and routing rack - 800 x 1000 x 2400 mm/50U (w x d x h) RAL 9011.....	MRS248010B	17
Switching and routing rack - 800 x 1200 x 2000 mm/41U (w x d x h) RAL 7047.....	MRS208012	17
Switching and routing rack - 800 x 1200 x 2000 mm/41U (w x d x h) RAL 9011.....	MRS208012B	17
Switching and routing rack - 800 x 1200 x 2200 mm/46U (w x d x h) RAL 7047.....	MRS228012	17

Switching and routing rack - 800 x 1200 x 2200 mm/46U (w x d x h) RAL 9011.....	MRS228012B	17
Switching and routing rack - 800 x 1200 x 2400 mm/50U (w x d x h) RAL 7047.....	MRS248012	17
Switching and routing rack - 800 x 1200 x 2400 mm/50U (w x d x h) RAL 9011.....	MRS248012B	17
Swivel handle, Fix Easy, conversion set	MLK0011	49
Swivel handle, Fix Easy, with number lock, conversion set	MLK0010	49

T

Telescopic cable bridge 1235-2000 mm (150 mm wide), RAL 7047.....	MCM0307	36
Telescopic cable bridge 1235-2000 mm (150 mm wide), RAL 9011.....	MCM0307B	36
Telescopic cable bridge 2000-3700 mm (150 mm wide), RAL 7047.....	MCM0308	36
Telescopic cable bridge 2000-3700 mm (150 mm wide), RAL 9011.....	MCM0308B	36
Telescopic cable bridge 990-1750 mm (150 mm wide), RAL 7047.....	MCM0306	36
Telescopic cable bridge 990-1750 mm (150 mm wide), RAL 9011.....	MCM0306B	36
Thermostat.....	MCSTF01	52
Tripac, fan unit - IEC connection.....	TRI.VE.00.02	55
Tripac, wall enclosure with glass door - 600 x 500 x 478 mm/9U (b x d x h).....	TRI.095015	55
Tripac, wall enclosure with glass door - 600 x 500 x 744 mm/15U (b x d x h).....	TRI.155015	55
Tripac, wall enclosure with glass door - 600 x 500 x 1011 mm/21U (b x d x h).....	TRI.215015	55

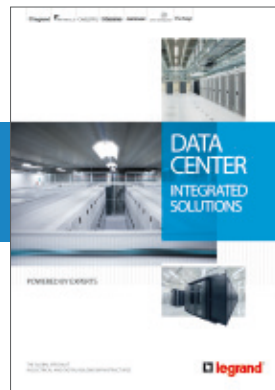
V

VariCondition dummy cooler - open loop - 300 mm (w), RAL 7047	MCS7021	63
VariCondition dummy cooler - open loop - 300 mm (w), RAL 9011	MCS7021B	63
VariCondition dummy cooler - hybrid loop - 300 mm (w), RAL 7047	MCS7022	63
VariCondition dummy cooler - hybrid loop - 300 mm (w), RAL 9011.....	MCS7022B	63
VariCondition dummy cooler - closed loop - 300 mm (w), RAL 7047	MCS7023	63
VariCondition dummy cooler - closed loop - 300 mm (w), RAL 9011.....	MCS7023B	63
VariCondition filler for top of unit - 300 x 1000 x 2075 mm (w x d x h), RAL 7047	MCS7041	63
VariCondition filler for top of unit - 300 x 1000 x 2075 mm (w x d x h), RAL 9011	MCS7041B	63
VariCondition filler for top of unit - 300 x 1000 x 2200 mm (w x d x h), RAL 7047	MCS7042	63
VariCondition filler for top of unit - 300 x 1000 x 2200 mm (w x d x h), RAL 9011	MCS7042B	63
VariCondition filler for top of unit - 300 x 1000 x 2275 mm (w x d x h), RAL 7047	MCS7043	63
VariCondition filler for top of unit - 300 x 1000 x 2275 mm (w x d x h), RAL 9011	MCS7043B	63
VariCondition filler for top of unit - 300 x 1100 x 2075 mm (w x d x h), RAL 7047	MCS7051	63
VariCondition filler for top of unit - 300 x 1100 x 2075 mm (w x d x h), RAL 9011	MCS7051B	63
VariCondition filler for top of unit - 300 x 1100 x 2200 mm (w x d x h), RAL 7047	MCS7052	63
VariCondition filler for top of unit - 300 x 1100 x 2200mm (w x d x h), RAL 9011	MCS7052B	63
VariCondition filler for top of unit - 300 x 1100 x 2275mm (w x d x h), RAL 7047	MCS7053	63
VariCondition filler for top of unit - 300 x 1100 x 2275mm (w x d x h), RAL 9011	MCS7053B	63
VariCondition filler for top of unit - 300 x 1200 x 2075mm (w x d x h), RAL 7047	MCS7061	63
VariCondition filler for top of unit - 300 x 1200 x 2075mm (w x d x h), RAL 9011	MCS7061B	63

VariCondition filler for top of unit - 300 x 1200 x 2200mm (w x d x h), RAL 7047.....	MCS7062	63
VariCondition filler for top of unit - 300 x 1200 x 2200mm (w x d x h), RAL 9011	MCS7062B	63
VariCondition filler for top of unit - 300 x 1200 x 2275mm (w x d x h), RAL 7047	MCS7063	63
VariCondition filler for top of unit - 300 x 1200 x 2275mm (w x d x h), RAL 9011	MCS7063B	63
VariCondition H2O-324 bottom filler - 1100/1200 x 75 mm (d x h) - RAL 7047	MCS7267	63
VariCondition H2O-324 bottom filler - 1100/1200 x 75 mm (d x h) - RAL 9011	MCS7267B	63
Velcro, roll - length 10 metres / width 16 mm.....	FDH1610	40

You can download our documentation via:
www.minkels.com/downloads

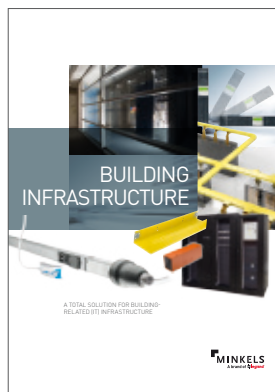
MINKELS



DOCUMENTATION

Legrand Datacenter integrated solutions

If you would like to know the possibilities for the data centre market offered by the Legrand Group as a whole, consult the brochure 'Legrand Integrated Data Centre Solutions'



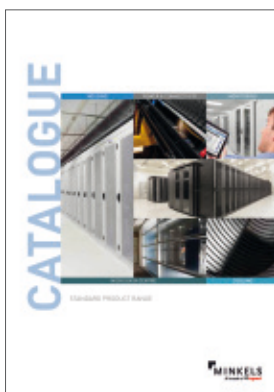
Building Infra

This brochure allows you to discover the total solutions which Minkels and Legrand can offer for your building-related IT infrastructure.



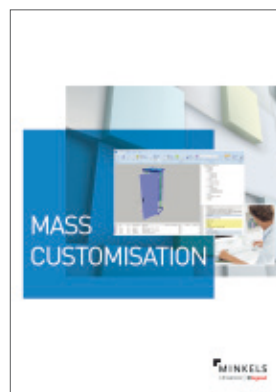
Data Centre Integrated Solutions

This brochure allows you to discover what Minkels and Legrand can mean for data centres specifically. Minkels focuses on the 'white space' – the heart of the data centre – and Legrand on the 'technical space' with its building-related infrastructure



Standard Product Catalogue

You are now reading the standard product catalogue. It provides details on our entire product range: total solutions for data centres and building-related systems. The standard products can be delivered from stock.



Mass Customisation brochure

A mass customised product is made up of preconfigured building blocks. These building blocks ultimately provide a modular and integrated solution which matches your requirements.



Minkels Magazine

Minkels issues the Minkels Magazine twice a year. The magazine is full of interesting and relevant customer cases, product introductions and the latest market trends.



MINKELS NETHERLANDS

Eisenhowerweg 12
P.O. Box 28
5460 AA Veghel
t. +31 (0)413 311 100
info@minkels.com

MINKELS BELGIUM

Vaartdijk 59
3018 Wijgmaal (Louvain)
t. +32 (0)16 44 2010
info-bel@minkels.com

MINKELS SWITZERLAND

Riedstrasse 3-5
CH -6330 Cham
t. +41 (0)41 748 4060
info-ch@minkels.com

MINKELS UK

4th Floor, 25-26 Lime Street
London, EC3M 7HR
t. +44 (0)1494 451706
info-uk@minkels.com

MINKELS FRANCE

Bâtiment D2
19 Bd. Georges Bidault
77183 Croissy Beaubourg
t. +33 (0)164 61 61 91
info-fr@minkels.com

MINKELS INTERNATIONAL

Eisenhowerweg 12
P.O. Box 28
5460 AA Veghel
t. +31 (0)413 311 100
info@minkels.com



FOLLOW US TOO ON

-  Minkels.com
-  Youtube.com/c/minkelshq
-  Twitter.com/Minkels_HQ
-  Facebook.com/Minkels
-  Linkedin.com/company/minkels