



Data & Telecommunications Solutions and Racks

CONTEG product catalog selection



Closed loop

New solutions:
Rack monitoring
Side-to-Side Airflow Rack
PDUs
EC Fans
Accessories

PDUs

EC fans

RAMOS

CONTEG ... to complete your network

CONTEG is pleased to provide our valued clients around the world with a wide range of physical infrastructure solutions for IT applications. Our offering includes cabinets and racks, total solutions for data centers, accessories, and services for all of these areas. The breadth of our solutions positions us amongst the top companies in our industry.

Satisfied customers from more than 50 countries across Europe, Asia, and Africa coupled with technical and quality certifications, serve as proof of a firm commitment to outstanding product quality and of the effectiveness of CONTEG solutions and services. We believe that the CONTEG experience will guarantee the highest level of satisfaction even to the most discerning clients.

**Vojtech Volacek
Sales Director**

We create the latest trends in the IT market

CONTEG as well as its team of experts is a member of prestigious associations and our professionals have achieved certification of global importance.



CONTEG has TÜV certificates for its products and acts according to strict ISO 9001 quality & ISO 14001 environment protection requirements.



New TestCenter for Data Centers

In May 2012, Conteg introduced a highly specialized TestCenter for Data Centers specifically for the testing of components and concepts related to energy efficiency, safety and quality of data center solutions.

Moreover, scientists from Czech universities actively collaborate on the studies and experiments. Plans and project proposals are supported by the theoretical knowledge of our experts as well as practical experience which is validated in labs.

The main measured values are air and water temperatures, humidity, air and water flow, pressures, acoustic and electric variables and others.

The TestCenter with a space of 156 m² is divided into a technical room and a laboratory, which is built as a 75m² large model data center with an 80cm high raised floor and 100 cm false ceiling.

It enables an installation of any rack layout that is similar to real situations such



as stand-alone racks, rack rows, contained aisles, and closed cabinet sets with cooling unit called closed-loops.

To ensure the most accurate measurement results TC4DC is equipped with the latest laboratory measuring systems and tools.

**VISIT OUR TC4DC in PELHŘIMOV !!! Contact your local sales representative and visit the Czech Republic.
Make use of our TC4DC to carry out tests of your components!**

News in the CONTEG product portfolio



:: EC fans

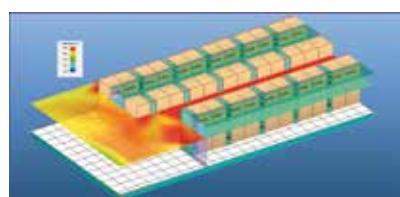
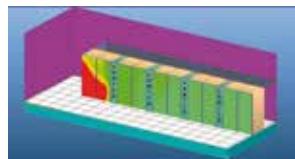
Conteg is a company that continuously focuses on the cost and energy saving product development. The EC technology fan-motors provide a modern high-end air-flow management solution that improves efficiency of the air condition with the aim to reduce the power consumption.



see page 19

:: Computational Fluid Dynamics (CFD) modeling

Computational Fluid Dynamics (CFD) modeling is a service designed to provide detailed data to assess and track the temperature and air-flow within your existing or proposed data center. Team of Conteg's professionals will assist to you with the space planning and DC layout, and then model your project on CFD software. The CFD model will simulate air flows, air pressures, and temperature maps of your data center. Using 3D imaging, the CFD application can run nominal and failure scenarios for the data center or server room project, which display how the design will perform under these varied conditions. Identifying potential hot spots, optimizing air flows and right sizing the cooling system are a few of the ways how the CFD simulation can assist you. The service includes detailed reports with graphics of

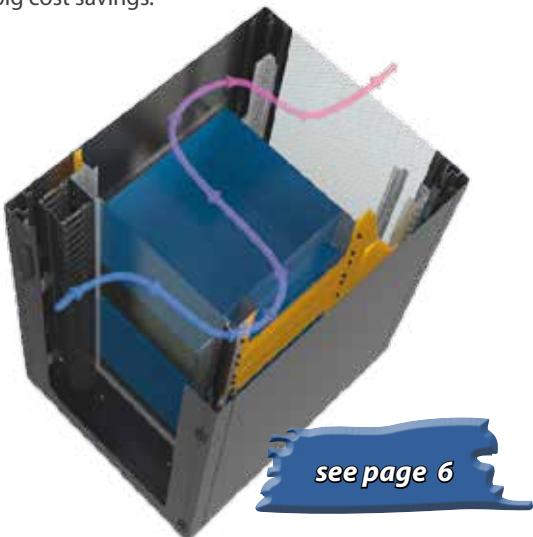


the room conditions under each scenario, details of the air flow maps, pressure and temperature for the racks, floor tiles, and at various elevations within the space.

for more information visit
www.conteg.com

:: Side-to-Side Airflow Support solution

New solution that allows using high speed network components near servers. It enables placement of components in server rooms and datacenters anywhere without limitations. Support of Hot/Cold Aisle, Contained Aisle, Chimney solution, and Modular Closed Loop layout will greatly impact efficiency in operating a datacenter resulting in big cost savings.



see page 6

:: RAMOS Mini, Optima, Ultra

We would like to introduce a new RAMOS monitoring solution. In accordance with a changing demand for installations and applications both small and big ones, Conteg is bringing three new solutions to the market:

RAMOS Mini – effective solution suitable for a single cabinet

RAMOS Optima – suitable for a small group of cabinets with different requirements

RAMOS Ultra – top range solution with wide range of accessories and possibility of expanding suitable for mid-size and big implementations, for Server Rooms and Data Centers, and for the Enterprise applications.



see page 8

:: Power Distribution Units

The range comprises power strips which feature either no intelligence (Basic), the ability to remotely monitor current draw using True RMS ammeter and Ethernet/IP interface (Monitored range) or the ability to fully manage power strips and groups of power strips across the network (Managed range).



see page 9

:: NEW! Conteg Assembling Assistance

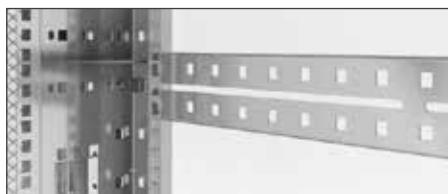
As an important part of our service to our customers we have started to offer a new service called Conteg Assembling Assistance (CAA). Conteg assembling assistance means that a Conteg specialist is present on site for supervising installation and to provide best practice training for local installers. We believe that CAA service will help our partners to provide installations of Conteg products at the highest level. Tasks like Containment Aisle (Modular/Fixed) installation, Optiway attachment, High Density Wire Management placement, RAMOS implementation together with eg. site survey, are ideal for CAA. For more info contact your sales representative.

PREMIUM RACK SERIES

We have embodied all the typical requests of users into the PREMIUM rack series design and created the TOP Rack Series among the CONTEG rack portfolio. With PREMIUM racks the variability acquires a new dimension – only the frame remains the same. All other parts – 19" extrusions, top and bottom plates, front and rear doors or panels, locks, side panels, foot or plinth – can be defined by you. A wide portfolio of all the mentioned parts is ready to be applied so an individual rack, meeting the most demanding requirements of data center and server rooms. Although the main design features remain the same, three configurations according to specific user needs have been pre-designed.

PREMIUM HEAVY - RHF

The PREMIUM Heavy rack is designed to cope with the increased loads of today's IT equipment within the data center, equipment room and network or telecommunications closet. The RHF's ultra



Ultra heavy duty design of 19" vertical extrusion results into RHF's load rating 1500kg



RHF's design will perfectly fit even in a row of cabling (RDF) or server (RSF) racks

heavy duty, all welded construction and 1500kg load rating mean that it's possible to accommodate the heaviest equipment within a standard rack footprint.

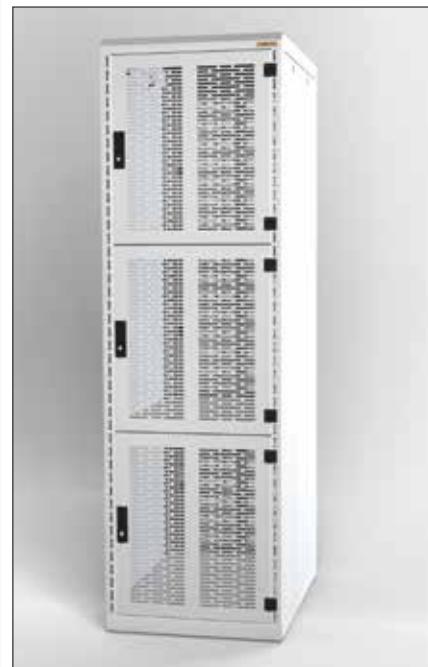
PREMIUM CABLING - RDF

The PREMIUM Cabling rack is designed as a dedicated cabling cabinet and is intended to be used in data centers, equipment rooms and network or telecommunication closets. Moreover, RDF is fully compatible with all cooling units from the Targeted Cooling portfolio and is recommended to be used together with top and wall mount A/C units. We have developed special cabling systems such as High Density Wire Management and optical pathway system OptiWay hand-in-hand with this PREMIUM rack series configuration. We strongly recommend you to combine the RDF rack series with both the mentioned cabling systems to give your cables the best possible support and care. For more information about cabling systems go to page 7.



PREMIUM HOUSING - RSF

The PREMIUM Housing series racks are designed for operation in server housing and co-location centers where they can be deployed as stand alone or in rows. The rack is available in a 2-4 section design. The



compartments are individually lockable and separated by perforated high-load shelves. Moreover, the rack can be equipped with individually adjustable 19" extrusions (must be ordered separately). All types of the 19" active or passive equipment can be housed inside.

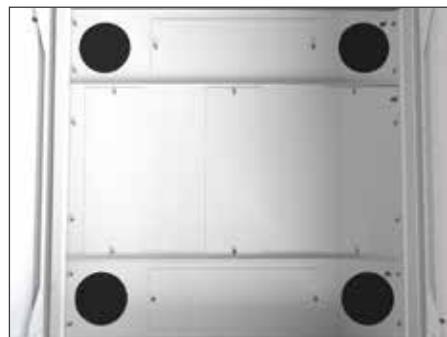
PREMIUM SERVER - RSF



Rear pair of 19" extrusions is vertically divided to enable variable depth settings according to different server depths

The PREMIUM Server rack is designed as a dedicated server cabinet and is intended to be used in data centers, equipment rooms and network or telecommunication closets. The RSF's heavy duty, all welded construction and 1000kg load rating mean that it is possible to accommodate the heavy equipment within a standard rack footprint. A full range of complementary systems, like Intelligent Power PDUs, is ready to be used together with RSF racks to make the housing of your servers even safer and more comfortable.

Interchangeable top and bottom plates in various design options provide a unique interface between in-rack and out-of-rack cabling systems (illustrative image only)



PREMIUM SERVER - RSF

The PREMIUM Server rack is designed as a pure server cabinet and is intended to be used in data centers, equipment rooms and network or telecommunication closets. The PREMIUM Server's heavy duty, all welded construction and 1000kg load rating mean that it is possible to accommodate the heavy equipment within a standard rack footprint. The PREMIUM Server rack comes with the full range of doors, panels and locks. Available in various heights and depths the PREMIUM Server rack is designed to work with CONTEG's air-flow optimization solutions and flexible cable management which means that the PREMIUM Server rack can be tailored to suit your needs. The PREMIUM Server rack can be completed with many complementary systems (e.g. Intelligent Power PDUs – see page 9) so housing your servers can become even safer and more comfortable.



RSF-42-80/80

Color sampler:

RAL 9005

RAL 7035

**BEST RACK IN
CLASS**

Sizes

- Height: 27, 42, 45, 48U
- Width: 600, 800mm
- Depth: 800, 1000, 1200mm (1200mm not available for 27U)

Construction

- Welded frame construction
- 1.5 & 2.0mm sheet steel

Load rating

- 1000kg balanced load (800kg for 27U only)

19" vertical extrusions

- 2 pairs of sliding 19" vertical L-type extrusions (600mm) or P-type (800mm) extrusions (extends installation height of the rack for 12U – valid for racks 42U and higher)
- Rear pair of vertical extrusions is divided in up to 3 parts (according to rack's height) for individual settings according to server depth

IP rating

- Standard IP20
- IP40 when solid doors or panels applied
- Optionally up to IP54
- A/C ready – IP54 when A/C unit installed

Colors

- Standard RAL 7035 and 9005
- Optionally other colors

Front door

- Vented door – perforation rate 83%
- Swivel handle lock – DIN profile, universal key 333, multipoint; optionally half profile cylinder or combination lock single or multipoint (other locks on request)
- Door opening angle 180°
- Easy re-hanging to open on right or left
- Optionally glass, steel, perforated, glass with perforation, vertically divided door

Rear door

- Vented door – perforation rate 83%
- Swivel handle lock – DIN profile, universal key 333, multipoint; optionally half profile cylinder or combination lock single or multipoint (other locks on request)
- Optionally can be replaced by full range of front doors and panels

Side panels

- Removable with locks

Top plate

- Single-piece design, removable
- 4" (100mm) rounded cable entry in every corner covered by plastic cap
- 300x100mm cable entries covered with removable sheet steel blank panels

Bottom plate

- Segmented design, removable
- 4" (100mm) rounded cable entry in every corner covered by plastic caps
- 300x100mm cable entries covered with removable sheets steel blank panels

Feet

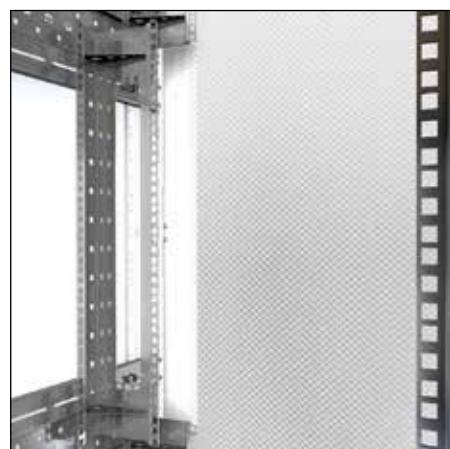
- Adjustable feet as standard; plinth or plinth with filter optionally

Adaptation

- Possibility to adapt for installation of 21" equipment (on request)
- Adaptor DP-RE-01 needed (ordered separately)

Other

- Racks can be installed in blocks by using DP-DR-UNI (ordered separately)
- A/C & cooling units compatible
- GND/earthing kit included



| product | code |
|--------------------------------------|---------------|
| 19" server racks RSF series * | |
| RSF 42U, width 800mm, depth 1200mm | RSF-42-80/120 |
| RSF 45U, width 800mm, depth 1200mm | RSF-45-80/120 |
| RSF 48U, width 800mm, depth 1200mm | RSF-48-80/120 |

* for more variation and information about RSF racks, please visit www.conteg.com

Side-To-Side airflow solution – STS

Conteg as a progressive supplier of Datacenter solutions is continuously striving to design solutions that satisfy demands of even our most discerning customers. These designs focus on efficiency and are aligned with the goals of leading advocates of green methods, such as the green grid ((TM)).

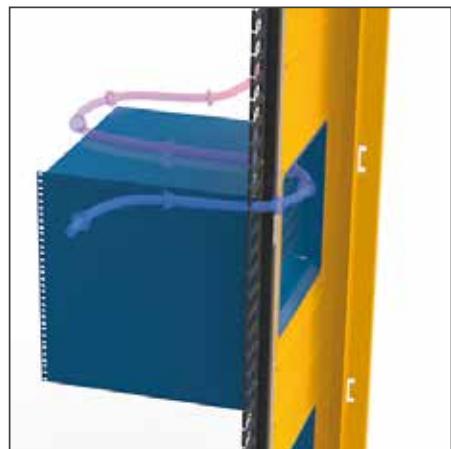
Increase of the computing capacity has direct impact on the volume of transferred data. Currently there are several high-end network equipment producers on the market who supply products that bring a new challenge in the airflow management area. Typical suppliers of such equipment include Cisco Systems Inc. and Juniper Networks Inc. These newly designed high performance products are not in compliance with the current industry standard "front to back" airflow configuration where vertical or front to back airflow is being supported. In these new applications more efficient "side to side" airflow management configuration is desirable. Designing for efficiency is nothing new at Conteg. The company has always led the industry with designs and solutions to meet the everchanging challenges:



for more information
visit www.conteg.com

| product | code |
|---|-------------------------|
| Side-to-Side Airflow Support | |
| RSF, 42U x 800 x 1000, S-t-S Airflow solution, Size 1 | RSF-42-80/100-WWWWA-SE1 |
| RSF, 42U x 800 x 1200, S-t-S Airflow solution, Size 1 | RSF-42-80/120-WWWWA-SE1 |
| RSF, 42U x 800 x 1200, S-t-S Airflow solution, Size 2 | RSF-42-80/120-WWWWA-SE2 |

Heights 45 and 48U available upon request



OptiWay - Optical pathway system



OptiWay is designed to provide a safe, easy to use and cost effective management system for your fragile optical cables. OptiWay allows you to route fiber optic cables among equipment and provides the physical protection and bend radius management that is crucial to optical cable performance.

- Designed for fiber-optical cables and high density structured networks
- Flame retardant and halogen-free material
- Solution intended for data centers
- Fully modular and flexible system



High Density Wire Managers

The new range of High Density Wire Managers from CONTEG ensures that cabling can be properly managed while maintaining the proper bend radii for today's high speed data cabling and helping to optimize network throughput.

- Made of high quality materials
- Ease of use - cover can be opened to the right, to the left or completely removed to get unhindered access
- Fully compatible with RSF, RDF, RHF, ROF racks and RSG2 and RSG4 frames
- Comprehensive solution with excellent design
- Available in horizontal and vertical configurations
- Effective bend radius management
- Vertical managers for racks (VMR series) can be used only in racks 800mm width



| product | code |
|--|---|
| High Density Wire Managers | |
| Horizontal Manager 1U ¹⁾ x 10 finger front only with removable cover, (HxWxD) 1U x 19" x 112mm | HDWM-HM-1F ¹⁾ |
| Vertical Manager (Rack) with three section removable cover, 41 fingers, front only, (HxWxD) 42U ²⁾ x 100 x 126 mm, 10 Velcro ties | HDWM-VMR-42 ^{2)-12/10F} |
| Vertical Manager (Rack) - one row, 41 fingers, front only, (HxD) 42U ²⁾ x 126 mm, 5pcs Velcro Cable Ties-small, 13 mm x 190 mm, compatible with L-type ⁷⁾ of extrusion, black, 1pcs | HDWM-VMR-42 ^{2)-12L⁷⁾} |
| Vertical Manager (Frame) with three section removable cover, 41 fingers, front only, (HxWxD) 42U ²⁾ x 200 x 151 mm ³⁾ , 10 Velcro ties | HDWM-VMF-42 ^{2)-15/20F³⁾} |
| Front duct system , compatible with HDWM-VMF-xx-yy/20F ⁴⁾ installed on the left-hand side, 1x cable radius protector included | HDWM-FDF-S3-20L ⁴⁾ |
| Adjustable Cable Trough manages cables between front and rear mounted VMR ⁵⁾ , includes top radius | HDWM-VMR ^{5)-ACT} |
| Fibre Slack Storage Spool Kit 100 mm ⁶⁾ deep, pair | HDWM-FSS-100 ⁶⁾ |

Optimize your cable management with HDWM

¹⁾ 2U and 3U variants available also models with front-rear cable through and models with brushes

²⁾ instead of 42U is possible order 45U

³⁾ other sizes available (25/20F, 25/30F)

⁴⁾ other size and orientations available

⁵⁾ variant for open frames available - VMF

⁶⁾ other size 50mm available

⁷⁾ P-type of extrusion model available



Rack Monitoring System RAMOS

The RAMOS (RAck MOnitoring System) is designed to be deployed within a rack to monitor its internal and external environment. As a network attached device, the RAMOS can report the status of sensors deployed in and around racks to any location worldwide and, using SNMP traps, can be integrated with any network management software such as HP OpenView.

RAMOS Mini

- Up to 2 sensors - temperature or humidity (T/H)
- One dry contact for any detector
- One output for control external equipment
- Output logic by conditionally at inputs
- Email and SNMP notifications
- Basic graphic view of measured data of T/H



RAMOS
MINI



RAMOS Optima

- Up to 8 autosense ports of intelligent sensors
- Input or output functionality by type of connected sensor
- Simple extension of cable length by standard cable Cat.5/6
- All intelligent sensors are powered by main unit
- Output logic by conditionally at inputs
- Embedded host with proprietary Linux OS with TCI/IP stack
- Email and SNMP notifications with time stamp of raised alarms
- Extended graphic view of measured data with time selection and export of values

RAMOS Ultra

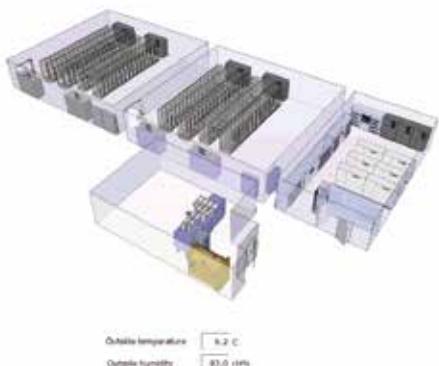
- Excellent solution for wide monitoring network
- Up to 500 autosense ports of intelligent sensors with expanders
- Graphic view of sensors position include mapping for better and quick locating
- Virtual mapping for monitoring other SNMP or OID units and parameters
- Input or output functionality by type of connected sensor
- Simple extension of cable lenght by standard cable Cat.5/6
- All intelligent sensors are powered by main unit or expanders
- Output logic can be controlled by input
- Ability to connect external GPRS / GSM modem, Bluetooth and WiFi USB adapters.
- Full Modbus support : Modbus Master / Slave, Modbus RTU, Modbus over TCP / IP
- Embedded host with proprietary Linux OS with TCI/IP stack
- Email and SNMP notifications with time stamp of raised alarms
- Extended graphic view of measured data with time selection and export of values

RAMOS
ULTRA

Communication scheme:



AEGIS Data Center Infrastructure Management (DCIM)



CONTEG has developed the Aegis DCIM system which collects, analyses and reports all the necessary information using standardized data communication protocols.

DCIM has a real-time performance dash-board with Metrics like PUE, EUE, EER, etc. DCIM monitors status and reports defects / equipment malfunctions, temperature problems, exceeding humidity or temperature set point, etc. With DCIM you have your Data Center under full control.

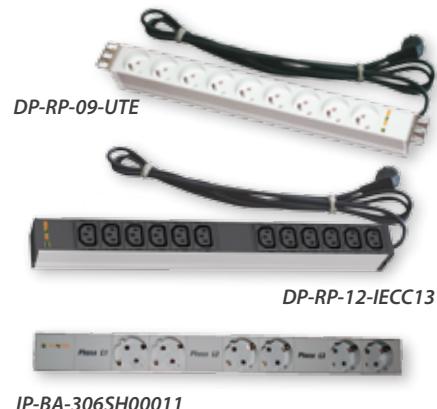
Aegis is not only a conventional DCIM, it also can control the strategic equipment of Data Centers to improve PUE.

Power Basic

Basic Power Distribution Units are designed for high density, mission-critical server applications. These models provide reliable power to the rack for both standard and Blade server environments.

| product | code |
|---|-------------------|
| Power Basic | |
| 19" socket panel, 6x UTE, surge protection, switch | DP-RP-06-UTEESP |
| Socket panel with free placing, 6x UTE, surge protection, switch | DP-RP-06-UTEESP-F |
| 19" socket panel, 8x UTE, switch | DP-RP-08-UTES |
| 19" socket panel, 9x UTE, no switch | DP-RP-09-UTE |
| 19" socket panel, 12x IEC C13, power cord SCHUKO | DP-RP-12-IECC13 |
| Vertically mounted socket panel, 20x UTE | DP-RP-20-UTEV |
| NEW PRODUCTS 2012 | |
| Basic PDU (Splitter), plug IEC 309 3m 3 phase 16A, Outlet 1 - 6x C19* with locking mechanism (IEC-lock), power rating 3x16A, 11kW | IP-BA-306C900011 |
| Basic PDU (Splitter), plug IEC 309 3m 3 phase 32A, Outlet 1 - 6x C19 with locking mechanism (IEC-lock), power rating 3x32A, 22kW | IP-BA-306C900022 |

*) UTE and Schuko outlets are also available



Intelligent Power Monitored & Managed

Deploying a server-grade microprocessor, strips feature a local easy-to-read ammeter on the outlet strip along with the ability to monitor the current draw of outlets remotely over an Ethernet connection. The user can aggregate the information from thousands of Intelligent Power Strips in one location.

Managed power strips represent the leading edge in functionality allowing unprecedented management and monitoring capabilities through the built in web-server and firewall. CONTEG Intelligent Power strips provide reliable power to the rack for both standard and blade server environments. They perfectly match the needs of high density, mission-critical server applications.

Features of Managed strips:

- Switch individual outlets on or off to enable remote reboot of servers
- Virtual grouping of outlets for single-click reboot of multi-corded servers
- Single-click control of entire racks or non-critical loads
- Current Monitoring per outlet (POM)
- User definable sequencing of outlets for reboot



| Intelligent Power Distribution Units – MONITORED | | | | | | | | | | Dimensions in mm | | |
|--|------------|--------|---------------|-----|---------------|-----|--------|----------|------|------------------|----|--|
| Code | Input Plug | Length | Type 1 Outlet | Qty | Type 2 Outlet | Qty | Rating | Mounting | H | W | D | |
| IP-DMI-321C33C911 | IEC309 | 3m | C13 | 21 | C19 | 3 | 3x16A | 0U | 1778 | 56 | 44 | |
| IP-DMI-318C36C922 | IEC309 | 3m | C13 | 18 | C19 | 6 | 3x32A | 0U | 1778 | 56 | 44 | |

Total Solutions for Data Centers

CONTEG has developed a comprehensive range of products and technologies for data centers and server rooms which include a wide range of high quality racks, frames, cable management products as well as monitoring, managing and fire extinguishing solutions to ensure that your equipment remains in a stable and safe operating environment and your network cabling is adequately protected.

HOT / COLD AISLE

The open Hot/Cold Aisle arrangement is considered to be the "standard" for data center designs. Racks are aligned front to front and cold air is delivered using the raised floor as a cold air handling space (plenum). The ANSI/TIA/ EIA-942-A (data center) standard recommends a cold aisle width of 1.2 metres (which is equivalent to two floor tiles) to allow a perforated tile to be placed in front of each cabinet which allows for cold air to be delivered to the cabinet front.



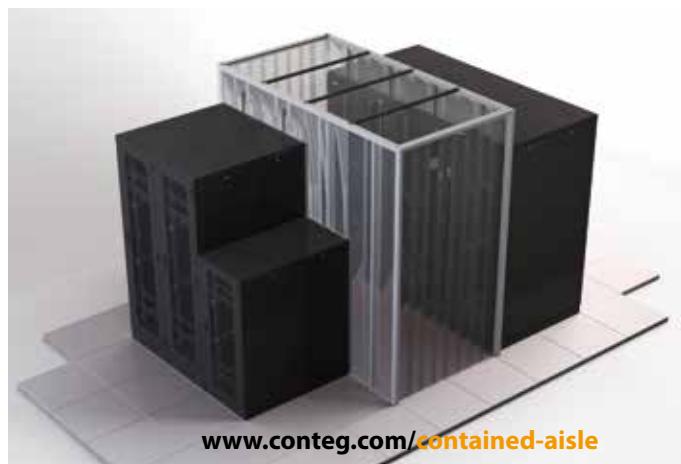
www.conteg.com/hot-cold-aisle

CONTAINED COLD AISLE

One of the potential drawbacks with the open Hot/Cold aisle arrangement is the risk of hot air recirculation and hot-spots. With CONTEG Contained Cold Aisle (CCA) solution, the containment system is used to physically separate cooled air from hot exhaust by forming a cold plenum space and preventing mixing of hot and cold air, thereby eliminating hot-spots. The cold air is supplied into the contained aisle through perforated tiles from the raised floor or produced locally by CoolTeg units which are installed directly in the row of cabinets as an integral part of the aisle. Standard width of CCA is 1.2m (two perforated tiles) or 1.8m (three perforated tiles) and containment can be deployed with standard swing doors or dual leaf sliding doors. To use Contained Cold Aisle is highly recommended to maximize cooling efficiency and minimize energy consumption of the entire Datacenter.



Modular Contained Aisle system is available upon request. This system is an ideal solution when a row of racks with different heights or even with gaps because of missing racks is required to be contained. System is based on self-supporting construction with clear polycarbonate panels on the top of the roof. Vertical side sections of the roof feature PVC foil strips, which can be easily cut to the required length. Modular Contained Aisle is very flexible and can work with standard swing door or with PVC foil strips instead of standard door. Contact us for more information.



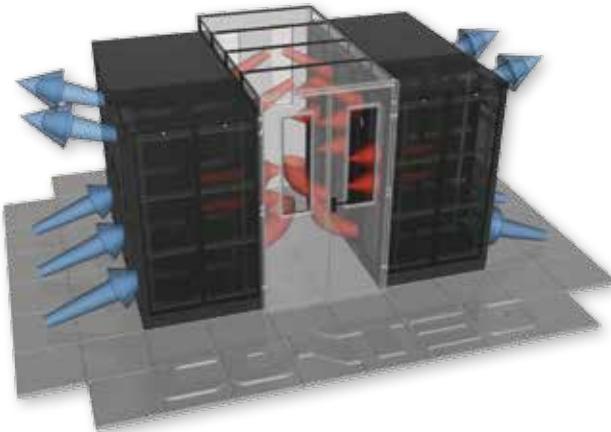
www.conteg.com/contained-aisle

Installation examples



CONTAINED HOT AISLE

In cases where there is no raised floor for cold air delivery or the room dimensions do not support contained cold aisle deployment, the best way is to use the CONTEG Contained Hot Aisle (CHA) together with CoolTeg units. With CONTEG Contained Hot Aisle (CHA) solution, the containment system is used to physically separate cooled air from hot exhaust by forming a hot plenum space and preventing mixing of hot and cold air, thereby eliminating hot-spots. Racks are aligned back to back and hot air is contained at the rear of row of cabinets where it is cooled by the CoolTeg units which are positioned directly in the row of cabinets as an integral part of the aisle. The cold air is blown out of CoolTeg units and it's delivered directly at the front of active IT equipment. Standard width of CHA is 1m, can be also 1.2m or 0.8m wide and containment can be deployed with standard swing doors or dual leaf sliding doors. To use Contained Hot Aisle is highly recommended to maximize cooling efficiency and minimize energy consumption of the entire Datacenter.

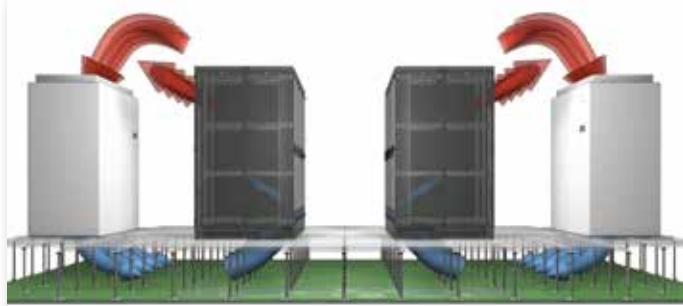


www.conteg.com/contained-aisle

PLENUM FEED WITH ROOM RETURN

This solution optimizes the use of cooled air by directing the cold air directly from the raised floor to the equipment within the rack. The rack sits on a special positioning welded frame which replaces a standard 600 x 600 floor tile. A deflector located in the bottom of the rack directs the cold air to the front of the rack to be drawn through the equipment mounted inside. Cold air is kept within the rack by a solid front door and hot exhaust air is rejected into the room through

a vented rear door ensuring that cold supply and hot exhaust air-streams remain separated leading to more efficient use of the cooled air and elimination of hot spots.

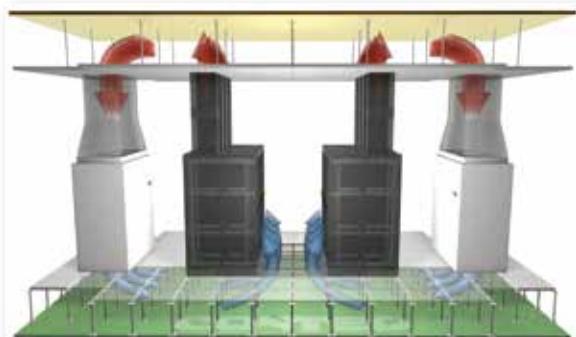


www.conteg.com/plenum-feed-with-room-return

ROOM FEED WITH PLENUM RETURN

A potential drawback with Contained Cold Aisle and Direct Feed / Room Return technologies is that the hot exhaust is introduced into the facility. Generally this should not pose a problem as long as the layout of the data center takes this into account. However, in certain very high density applications it may be desirable to completely separate the hot exhaust.

CONTEG's Hot Plenum Return Kit addresses this requirement by using a vertical "chimney" at the top rear of the rack directly connected to a hot plenum at ceiling height. The hot air is removed from the plenum by CRAC units, cooled again and delivered back to the room. The rack is equipped by front vented door, so the cold air can easily enter the rack space, where it is sucked in by the installed equipment.



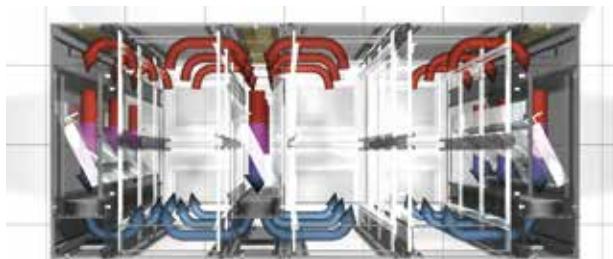
www.conteg.com/room-feed-with-plenum-return



MODULAR CLOSED LOOP SOLUTIONS

The Closed Loop architecture offers the ability to achieve up to 36kW per rack of cooling capacity in one specific assembly. This type of architecture can be especially useful when planning to install a few very high density racks into a facility as the racks do not release any heat out into the data center environment. It is also an ideal solution when limited rack space (for example, in atypical server room of a mid-size company) is required, but the cooling becomes an issue because of high density applications housed there.

The Closed Loop architecture is available in modular design, when virtually unlimited number of racks and cooling units can be combined into a closed module. The modular design is fully flexible and accommodates any combinations of cooling units and racks to give the required levels of cooling and redundancy.



Top view – air flow detail – closed air-loop architecture with side coolers



www.conteg.com/modular-side-closed-loop

Targeted cooling - CoolTeg & CoolSpot units

CoolTeg units

CoolTeg units are available to be installed in either closed or open air loop configurations. Open loop configuration is designed for cooling units to be deployed inside a row of racks, positioned next to server racks, to deliver chilled air directly to the cold aisle side. Closed loop configuration currently provides the most accurate cooling solution with cooling capacity up to 36kW. In close loop configuration cooling units are enclosed together with server racks as one unit in order to blow chilled air directly in front of equipment. CoolTeg cooling units are available as direct expansion units such as DX or XC type and in chilled water CW version. All CoolTeg units are designed to perfectly match and fit together with Conteg manufactured cabinets to maximize cooling efficiency. Either top or bottom piping connection is available as standard on all units. CoolTeg DX and CW units have AC type fans installed as standard with optional EC fan configuration. All CoolTeg XC units are equipped with high efficiency EC fans as standard.

CoolTeg DX units are connected to Mitsubishi outdoor condensing units which are equipped with an inverter driven compressor.

CoolTeg XC units have EC compressor located inside the indoor unit. XC units are connected to the remote condenser which can be designed for a high ambient temperature use up to 53 °C. Both direct expansion units use refrigerant R410A.

CoolTeg CW units use a central chilled water system as a source of chilled media. CoolTeg CW unit is equipped with either, a 3-way valve or optionally, a 2-way valve to control CW unit's cooling capacity.



CoolSpot units

CoolSpot units come in either Top Mounted or Wall Mounted configuration. This type of cooling solution has been developed specifically for an area where insufficient cooling is currently available as to avoid hot spots generated by the heat load. As an example we could use Telecommunications Closets where insufficient capacity exists simply because no source of cooling is provided by a central air conditioning system.

CoolSpot units include a complete refrigerant circuit with compressor, evaporator, condenser, and all necessary components and control systems. These systems are designed to deliver cooling capacity up to 6 kW for a standalone, IP54 sealed cabinets. IP54 cabinets won't allow any dust, smoke or any additional humidity to enter inside of the cabinet which permits the entire cabinet to be placed in dusty areas such as production line or assembly halls.

CoolSpot units are designed as Plug & Play easy to use cooling system that requires low maintenance with no air filters or condensation buildup.



OPTIMAL - ROF

The OPTIMAL rack is designed to cope with the demanding needs of IT equipment within the data center, equipment room and network or telecommunications closet. The OPTIMAL's flexible configuration options mean that it's easy to tailor the solution to your exact requirements. Various height, depth and width options, along with load rating of up to 1000kg, air-flow optimization solutions and flexible cable management mean that it has never been simpler to custom configure a cabinet that meets your requirements.

- Height: 15 - 48U
- Width: 600 or 800mm
- Depth: 600, 800, 1000 or 1200mm
- Load rating: 300kg (15-33U), 400kg (36U), 500kg (42-48U)
- IP rating: standard IP30, optionally IP54; using perforated door results in IP20
- Frame construction: 1.5mm, 2mm sheet steel

Equipment:

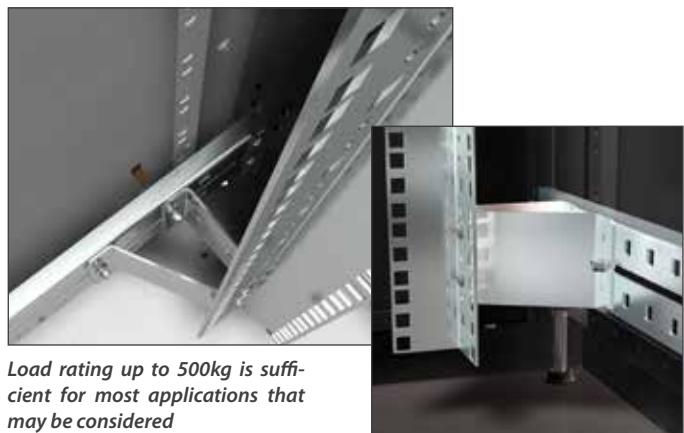
- Wide variety of doors: tinted security glass door, optionally steel, perforated steel, vented (perforation rate 83%), vertically divided doors etc.
- Front door with swivel handle lock, optionally cylinder or combination lock, other locks on request
- Removable rear panel with module for cable entry, optionally can be replaced by full range of doors
- Removable side panels with lock, easy access to installed devices
- Top, bottom, and rear openings for cable entry, covered by removable blank panels
- Top and bottom openings for ventilation units covered with blank panels
- 2 pairs of sliding 19" vertical extrusions; marking of height units on vertical extrusions
- GND/earthing kit
- Compatible with all of the CONTEG original accessories

Standard configuration:

2 pairs of 19" sliding vertical extrusions, 1 pair of side panels with lock, tinted security glass front door (EN 12150-1) with swivel handle lock, rear panel with module for cable entry, 4 adjustable feet, GND/earthing kit, 28 mounting kit, allen key, door positioning wedges

| product | code * |
|------------------------------------|---------------|
| 19" OPTIMAL rack | |
| ROF 21U, width 600mm, depth 600mm | ROF-21-60/60 |
| ROF 27U, width 600mm, depth 600mm | ROF-27-60/60 |
| ROF 33U, width 600mm, depth 600mm | ROF-33-60/60 |
| ROF 42U, width 600mm, depth 600mm | ROF-42-60/60 |
| ROF 21U, width 600mm, depth 800mm | ROF-21-60/80 |
| ROF 27U, width 600mm, depth 800mm | ROF-27-60/80 |
| ROF 33U, width 600mm, depth 800mm | ROF-33-60/80 |
| ROF 42U, width 600mm, depth 800mm | ROF-42-60/80 |
| ROF 42U, width 600mm, depth 1000mm | ROF-42-60/100 |
| ROF 21U, width 800mm, depth 800mm | ROF-21-80/80 |
| ROF 27U, width 800mm, depth 800mm | ROF-27-80/80 |
| ROF 33U, width 800mm, depth 800mm | ROF-33-80/80 |
| ROF 42U, width 800mm, depth 800mm | ROF-42-80/80 |
| ROF 42U, width 800mm, depth 1000mm | ROF-42-80/100 |

* for ROF rack in light grey (RAL 7035) simply add -B to the code
for ROF rack in black (RAL 9005) simply add -H to the code



Load rating up to 500kg is sufficient for most applications that may be considered



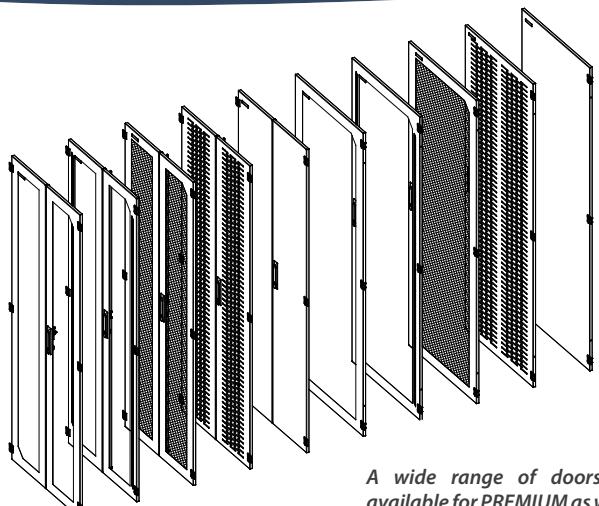
ROF-42-80/80

Color sampler:

RAL 9005

RAL 7035

For UNASSEMBLED rack with these options, please refer to OPTIMAL Flex at www.conteg.com



A wide range of doors is available for PREMIUM as well as for OPTIMAL rack series

19" distribution racks iSEVEN / iSEVEN Flex

The SEVEN rack series has been designed to provide the user with an unmatched ratio between price, utility value and quality. The SEVEN rack series is available in two versions - iSEVEN with welded construction and an unassembled version - iSEVEN Flex. iSEVEN Flex is delivered in 4-5 carton boxes for an easy transportation to the installation site where they can be assembled quickly and easily. After thorough research, we have prepared a portfolio of the most common dimensions in one universal design.

- Height: 21, 27, 42, and 45U
- Width: 600 and 800mm
- Depth: 600, 800 a 1000mm
- Frame construction: 1.5mm sheet steel
- Load rating: max. 300kg (21, 27U) or 400kg (42, 45U) balanced load
- Color powder coated RAL (standard RAL 7035 or 9005)

Equipment:

- Front glass door with swivel handle lock, optionally sheet steel door
- Easy re-hanging to open on right or left
- Removable side panels with lock, easy access to installed devices
- Rear panel with knock-out cable entry and lock
- 19" vertical extrusions marked with U positions
- Top, bottom, and rear knock-out openings for cable entry (300x100mm); can be covered with removable blank panels (ordered separately)
- Top and bottom openings for ventilation units covered with removable blank panels
- Compatible with most of the CONTEG original accessories

Standard configuration:

Frame of rack(RI7) / top and bottom covers, 4 columns (RM7), 2 pairs of 19" sliding vertical extrusions, 2 or 3 pairs of vertical extrusions holders, front door with swivel handle lock and safety glass (EN 12150-1), removable rear panel with knock-out cable entry and lock, 1 pair of sheet steel side panels with locks, 4 adjustable feet, GND/earthing kit, 28 mounting kits.



RI7-42-60/60-H

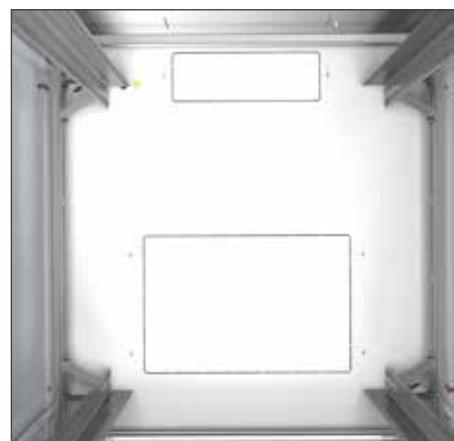
Color sampler:

RAL 9005

RAL 7035



Top frame is perforated to allow effective air circulation. The frame is based on four stable columns of high-quality sheet steel



SEVEN racks are equipped with knock-out cable openings

| product | code | |
|--|----------------|----------------|
| 19" racks iSEVEN / iSEVEN Flex series 600x600mm | iSEVEN | iSEVEN Flex |
| iSEVEN / iSEVEN Flex 21U, width 600mm, depth 600mm | RI7-21-60/60-X | RM7-21-60/60-X |
| iSEVEN / iSEVEN Flex 27U, width 600mm, depth 600mm | RI7-27-60/60-X | RM7-27-60/60-X |
| iSEVEN / iSEVEN Flex 42U, width 600mm, depth 600mm | RI7-42-60/60-X | RM7-42-60/60-X |
| iSEVEN / iSEVEN Flex 45U, width 600mm, depth 600mm | RI7-45-60/60-X | RM7-45-60/60-X |

| 19" racks iSEVEN / iSEVEN Flex series 600x800mm | code |
|--|----------------|
| iSEVEN / iSEVEN Flex 21U, width 600mm, depth 800mm | RI7-21-60/80-X |
| iSEVEN / iSEVEN Flex 27U, width 600mm, depth 800mm | RI7-27-60/80-X |
| iSEVEN / iSEVEN Flex 42U, width 600mm, depth 800mm | RI7-42-60/80-X |
| iSEVEN / iSEVEN Flex 45U, width 600mm, depth 800mm | RI7-45-60/80-X |

| 19" racks iSEVEN / iSEVEN Flex series 600x1000mm | code |
|---|-----------------|
| iSEVEN / iSEVEN Flex 27U, width 600mm, depth 1000mm | RI7-27-60/100-X |
| iSEVEN / iSEVEN Flex 42U, width 600mm, depth 1000mm | RI7-42-60/100-X |

| 19" racks iSEVEN / iSEVEN Flex series 800x800mm | code |
|--|----------------|
| iSEVEN / iSEVEN Flex 27U, width 800mm, depth 800mm | RI7-27-80/80-X |
| iSEVEN / iSEVEN Flex 42U, width 800mm, depth 800mm | RI7-42-80/80-X |
| iSEVEN / iSEVEN Flex 45U, width 800mm, depth 800mm | RI7-45-80/80-X |

| 19" racks iSEVEN / iSEVEN Flex series 800x1000mm | code |
|---|-----------------|
| iSEVEN / iSEVEN Flex 27U, width 800mm, depth 1000mm | RI7-27-80/100-X |
| iSEVEN / iSEVEN Flex 42U, width 800mm, depth 1000mm | RI7-42-80/100-X |
| iSEVEN / iSEVEN Flex 45U, width 800mm, depth 1000mm | RI7-45-80/100-X |

WALL-MOUNT RACKS & SOHO RACKS

WALL-mount PREMIUM and PREMIUM Split (RUN/RUD)

The **Wall-mount Premium** line is designed as a universal flexible solution for any mixed installation. It offers the highest possible access level to the equipment installed. The WM Premium versions allow access from both sides while WM Premium Split versions allow access from both sides and rear side (Swing-frame design). Racks are designed for installing patch panels, active components, etc., where frequent access to installed components is required. The WM Premium line contains models of 6 heights and 3 depths.



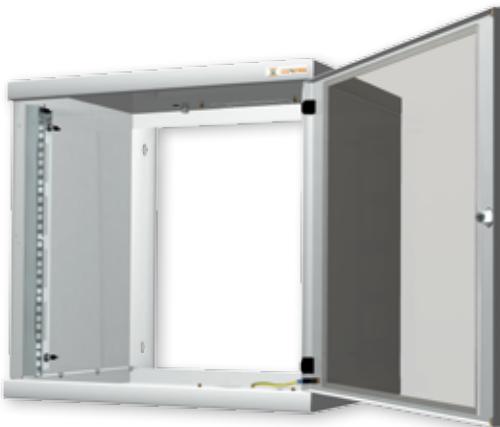
RUD-15-60/50



RON-15-60/40

WALL-mount OPTIMAL and OPTIMAL Split (RON/ROD)

The **Wall-mount Optimal** line is designed as a universal solution for standard installations. It offers standard access level to the equipment installed. The WM Optimal versions allow access from front side while WM Optimal Split versions allow access from front and rear sides (Swing-frame design). Racks are designed for installing patch panels, active components, etc., where access at installed components is not frequent. The WM Optimal line contains models of 6 heights and 3 depths.



REN-06-60/40

WALL-mount iSEVEN (REN)

The **Wall-mount iSEVEN** line is designed as an entry-level solution for basic installations. It offers standard access level to the installed equipment. The WM iSEVEN versions allow access only from front side. Rack is designed for installing patch panels, active components, etc., where access to installed components is not frequent. The WM iSEVEN line contains models of 4 heights and 3 depths.

SOHO In-wall and On-wall (ACP-IW/ACP-OW)

The **SOHO In-wall** and **On-wall** line is designed for placement in households and in small offices where 19" components are required. There are two versions depending on type of use - On-wall or In-wall installation. The SOHO In-Wall and On-wall 19" distribution enclosures give great deployment flexibility whilst offering a much more aesthetically pleasing and cost-effective solution for the developer/homeowner. The SOHO In-wall and On-wall racks are equipped with extrusions for active equipment installation (2U) as well as for passive elements mounting (4U). Racks offer a basic level of access to the equipment installed through the front door.



ACP-OW-55/53/14



ACP-IW-55/53/14



19" open frames RS series

The RS series frames are used in closed rooms with controlled access and within a suitable operating environment for installed components or wherever racks cannot be used for any reason. These frames are available either in single version (one frame) or in double version (two frames).

| product | code |
|----------------------------------|-------|
| 19" open frames RS series | |
| 19" frame RS 27U, 1pc | RS-27 |
| 19" frame RS 36U, 1pc | RS-36 |
| 19" frame RS 42U, 1pc | RS-42 |
| 19" frame RS 45U, 1pc | RS-45 |
| plinth (1pair) | RS-P |

- Height: 27, 36, 42, 45U
- Width: 559mm
- Depth: 600mm (base size)
- Load rating: 200kg single frame, 400kg double frame
- IP rating: IP00
- Color: RAL 9005

Color sampler:

RAL 9005



19" high-load open frames RSG2 and RSG4 series

RSG series frames are an alternative to housing the equipment in racks. Open frames bring unbeatable accessibility, but require a dust free environment with controlled access, because no protection is provided to the equipment. There are two lines:

The **RSG2** two post frames are available with two load ratings, depending on the type of equipment that you want to install – **500 or 1000 kg**.

The **RSG4** four post frame is suitable for installation of heavy servers, disk arrays etc., where **1500 kg** load rating is required. The frames are also suitable for use in testing and service rooms where they ensure unlimited access to components installed.

Both lines RSG2 and RSG4 are designed to be used together with High Density Wire Managers -HDWM.

- Height: 27, 42, 45, 47U – (27U only RSG2 version)
- Width: 550mm
- Depth:
 - › RSG2 - 100mm
 - › RSG4 adjustable: 500-680mm, 710-890mm, 920-1100mm
- Load rating (balanced load):
 - › RSG2 – 500 kg or 1000kg (balanced load; only 42, 45, 47U)
 - › RSG4 – 1500 kg
- IP rating: IP00 (no protection)
- Color: RAL 9005

| product | code |
|---|---|
| 19" high-load open frames RSG 2 series | |
| 19" open frame RSG2 27U, load rating 500kg | RSG2-27-19-L5 |
| 19" open frame RSG2 42U*, load rating 500kg | RSG2-42 ¹⁾ -19-L5 |
| 19" open frame RSG2 42U*, load rating 1000kg | RSG2-42 ¹⁾ -19-LA |
| 19" high-load open frames RSG4 series | |
| 19" open frame RSG4 42U*, adjustable depth 500-680mm | RSG4-42 ¹⁾ -19/50-LF ²⁾ |
| 19" open frame RSG4 42U*, adjustable depth 710-890mm | RSG4-42 ¹⁾ -19/74-LF ²⁾ |
| 19" open frame RSG4 42U*, adjustable depth 920-1100mm | RSG4-42 ¹⁾ -19/92-LF ²⁾ |

Color sampler:

RAL 9005



Cable protection in openings

Edging strips and brush panels help to protect cables on entry and can limit dust penetration into the rack. In all cases they are installed into the cable inlet openings.

- Installed in cable entry openings (300x100mm or 300x50mm)
- Mounting holes for wall installation on the back



| product | code |
|--|--------------|
| Protection of cables in openings | |
| Rubber piece on edges of cable entries (length 790mm) for free-standing racks | DP-KP-LEM |
| Hermetic dust-proof panel for IP54 racks, ready for 24x 12.6mm and 10x 10.5mm cable openings | DP-KP-HCE |
| Dust-proof panel with brush – for free-standing racks | DP-KP-KAR |
| Dust-proof panel with brush – for wall-mounting racks | DP-KP-KAR3 |
| Dust-proof panel with double brush – for free-standing racks | DP-KP-KAR4 |
| Divided dust proof panel with double brush – for free-standing racks | DP-KP-KAR4-D |
| Dust proof panel with brush – for PREMIUM free-standing racks, size of hole 300x50mm | DP-KP-KAR5 |
| Dust-proof panel with double brush – for raised floor installation (opening size 410x215mm) | DP-KP-KAR-A |
| Dust proof panel with sliding part covering with PUR material | DP-KP-KAR7 |
| Round cable entry with brush, 4" (100mm) | DP-KP-RB4 |

19" blank and vented panels with brush

| product | code |
|---|------------|
| Blank and vented panels with brush | |
| 19" fast blank panel 1U, color black | DP-ZA-1F |
| 19" fast blank panel 2U, color black | DP-ZA-2F |
| 19" fast blank panel 3U, color black | DP-ZA-3F |
| 19" fast blank panel 5U, color black | DP-ZA-5F |
| 19" blank panel 1U, color black | DP-ZA-1U |
| 19" blank panel 3U, color black | DP-ZA-3U |
| 19" blank panel 5U, color black | DP-ZA-5U |
| 19" vented panel with brush and cable management, color black | DP-BP-02 |
| 19" vented panel with double layer brush, color black | DP-BP-03 |
| 19" divided vented panel with double layer brush, color black | DP-BP-03-D |

These panels are mounted to 19" vertical extrusions. Blank panels are used to cover empty positions in rack. Vented panels enable front to rear cable passage through empty positions in the rack while helping to minimize by-pass airflow.



19" fixed shelves

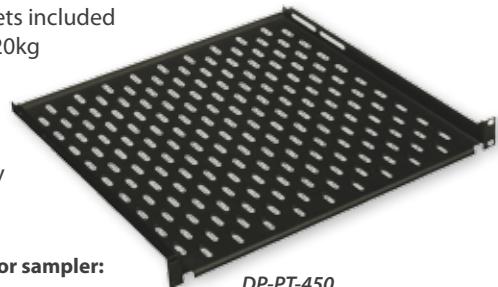
Fixed shelves represent the basic option for supporting equipment which is not mounted on 19" vertical extrusions. The whole surface is perforated for effective ventilation.

| product | code |
|---|-----------|
| Fixed shelves | |
| 19" shelf with supporting brackets, depth 250 mm | DP-PT-250 |
| 19" shelf with supporting brackets, depth 350 mm | DP-PT-350 |
| 19" shelf with supporting brackets, depth 450 mm | DP-PT-450 |
| 19" shelf with supporting brackets, depth 550 mm | DP-PT-550 |
| 19" shelf with supporting brackets, depth 650 mm | DP-PT-650 |
| 19" shelf with supporting brackets, depth 750 mm | DP-PT-750 |
| 19" shelf, depth 450 mm, load rating 100kg | DP-PZ-450 |
| 19" shelf, depth 550 mm, load rating 100kg | DP-PZ-550 |
| 19" shelf, depth 650 mm, load rating 100kg | DP-PZ-650 |
| 19" shelf, depth 750 mm, load rating 100kg | DP-PZ-750 |

- Made of 1.5mm sheet steel
- Supporting brackets included
- Load rating max. 20kg balanced load
(Load rating decreased to 25% when mounted only on front pair of vertical extrusions)

Color sampler:

RAL 9005



19" pull-out shelves

Pull-out shelves allow support of equipment which is not mounted on the 19" vertical extrusions. Owing to the telescopic system, the equipment can be accessed very easily. The whole surface is perforated for effective ventilation.

| product | code |
|----------------------------------|------------|
| Pull-out shelves | |
| 19" pull-out shelf, depth 250 mm | DP-PO-250V |
| 19" pull-out shelf, depth 350 mm | DP-PO-350V |
| 19" pull-out shelf, depth 450 mm | DP-PO-450V |
| 19" pull-out shelf, depth 650 mm | DP-PO-650V |

- Height 1U
- Made of 1.5mm sheet steel
- 1 pair of side telescopic rails
- Load rating max. 25kg balanced load
(Load rating decreased to 25% when mounted only on front pair of vertical extrusions)

Color sampler:

RAL 9005



19" pull-out high load shelves

- Height 1U
- Made of 2mm and 2.5mm sheet steel
- Max. pull-out 450 mm
- Load rating max. 80kg balanced load

Color sampler:
RAL 9005

| product | code |
|--|------------|
| Pull-out high load shelves | |
| 19" pull-out shelf, depth 450 mm, height 1U, high-load | DP-PZ-450V |
| 19" pull-out shelf, depth 550 mm, height 1U, high-load | DP-PZ-550V |



19" wire management brackets and ducts

Used for storage and horizontal management of cables within the rack. They are attached to the 19" extrusions.

- Height: 1 or 2U
- "Front only" or "front and rear" design
- Oval openings in panel allow front to rear cabling

| product | code |
|---|-----------|
| Wire management brackets and ducts | |
| 19" wire management panel 1U - front only, plastic brackets 40 x 50 mm | DP-VP-P1 |
| 19" wire management panel 1U - front only, plastic brackets 40 x 50 mm | DP-VP-P2 |
| 19" wire management panel 2U - both sides, plastic brackets 80 x 60 mm | DP-VP-P4 |
| 19" wire management panel 1U - front only, plastic brackets 40 x 80 mm | DP-VP-P5 |
| 19" wire management panel 1U - both sides, plastic brackets 40 x 80 mm | DP-VP-P6 |
| 19" wire management panel 2U - front only, plastic brackets 80 x 80 mm | DP-VP-P7 |
| 19" wire management panel with plastic duct 1U - front only, 40 x 40 mm | DP-VP-K01 |
| 19" wire management panel with plastic duct 2U - front only 80 x 60 mm | DP-VP-K03 |
| 19" wire management panel with plastic duct 2U - both sides 80 x 60 mm | DP-VP-K06 |



DP-VP-K



DP-VP-P

Plastic and metal brackets

Designed for mounting on 19" extrusions. They are used for vertical or horizontal cable management within the rack.

- Height: 1 or 2U
- Flange for installing on 19" vertical extrusions
- Front or side cable entry

| product | code |
|--|---------------|
| Plastic and metal brackets | |
| Plastic cable bracket 40 x 50 mm, vertical | VO-P1-40/50 |
| Plastic cable bracket 80 x 80 mm, vertical | VO-P7-80/80 |
| Plastic cable bracket 80 x 80 mm, horizontal | VO-P8-80/80 |
| Metal cable bracket 100x140mm, 10pcs | VO-W1-100/140 |
| Metal cable bracket 100x100mm, 10pcs | VO-W2-100/100 |
| Metal cable bracket 80x80mm, 10pcs | VO-W2-80/80 |



VO-W1-100/140
VO-P1-40/50
VO-P7-80/80

For High Speed networks with Cat.6A/7 recommended HDWM - see page 7

Vertical wire management panels

| product | code |
|---|-------------|
| Vertical wire management panels | |
| Vertical wire management panel 27u | DP-VP-VR-27 |
| Vertical wire management panel 42u | DP-VP-VR-42 |
| Vertical wire management panel 45u | DP-VP-VR-45 |
| Holder of vertical wire management panels 27u, 1 pair | HVMF-27 |
| Holder of vertical wire management panels 42u, 1 pair | HVMF-42 |
| Holder of vertical wire management panels 45u, 1 pair | HVMF-45 |

Used for storing and managing cables vertically in 800mm wide free-standing racks.

- For racks 27, 42 and 45U high
- Plastic duct for cable management, size 80x60mm
- Installation to the front part of vertical extrusions by using holder of vertical wire management panels (HVMF) which is not included

Mounting kits

For attachment of equipment to vertical extrusions

| product | set includes | code |
|----------------------------------|--|-------------------------|
| Mounting kit | | |
| Mounting kit | 1x screw M5, 1x floating nut, 1x washer | DP-MO-01 ¹ |
| Mounting kit - fast installation | 1x screw M6, 1x nut | DP-MO-F2 ^{1,2} |
| Mounting kit - multipack | 100x mounting kit (1x screw, 1x floating nut, 1x washer) | DP-MO-100 |



DP-MO-F2



DP-MO-01

¹ Please order in multiples of four only (one packaging = 4 above presented sets)

² Compatible with cut-out 9.5 x 9.5 mm

Ventilation units

Ventilation units are used to enhance airflow for improved cooling of equipment installed in the racks. Ventilation units are mounted either on 19" vertical extrusions (horizontally) or in the top or bottom frame of the rack (connecting kit required). Available units from 2 to 9 fans.

- Two to nine fans
- Possible to install:
 - a) in 19" extrusions – horizontally
 - b) in top or bottom frame of free-standing rack
 - c) in active doors
- Connecting kit for ventilation unit is needed when installing in top or bottom frame
- Temperature range -10°C to 55°C
- Thermostat in the range 0°C – 60°C included; optionally no thermostat
- Voltage range 230V/50Hz (optionally 48V DC)
- IP 20 protection category to EN 60 529
- Color powder coated RAL (standard RAL 9005)

Color sampler:
RAL 9005



| product | code |
|---|------------|
| Ventilation units | |
| Ventilation unit - 2 x AC fan | DP-VEN-02 |
| Frame for ventilation unit installation 1-3 fans | DP-VER-03 |
| Ventilation unit - 4 x AC fan | DP-VEN-04 |
| Frame ventilation unit installation, 4-6 fans | DP-VER-06 |
| Ventilation unit - 9 x AC fan | DP-VEN-09 |
| Frame for ventilation unit installation, 7-9 fans | DP-VER-091 |
| NEW PRODUCTS 2012 High-end EC fans | |
| Ventilation unit - 3 x EC fan | DP-VEC-03 |
| Ventilation unit - 6 x EC fan | DP-VEC-06 |
| Ventilation unit - 9 x EC fan | DP-VEC-09 |

NEW EC TECHNOLOGY:

Efficient, ecological, economical!

New high quality fans feature electronically commuted synchronous motors, well known as "EC motors". The main advantage of this technology is a very low power consumption in comparison to the standard AC motors. For example – power consumption of our new DP-VEC ventilation unit is seven times lower than the standard DP-VEN with equal air-flow. On the top of it, DP-VEC provides up to 60% bigger air-flow with an equal number of fans and required air pressure in comparison with the standard DP-VEN.

NEW! Live meeting webcast and Training Calendar!

As an important part of our training initiative, Conteg provides Live meeting webcasts using MS Office Live meeting service. These webcasts are focusing on Product portfolio training, marketing of new products on the market, introduction of Conteg Total Solutions and many others. With this service Participants will receive up-to-date information on the latest trends in Datacenter Solutions from dedicated Conteg professionals and Product Managers. There is a weekly schedule and live meetings are provided in English and Czech. Other language versions are available upon request. For a live meeting calendar and other training schedules check our website or contact your local sales representatives.

Live meeting 2012
High Density cabling systems

Petr Balus, Total solutions Engineer
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www.conteg.com/sales-representatives/

You can buy CONTEG products via our wide network of authorized distributors. The most up-to-date contact information can be found on the next page. You will find the nearest distributor quickly and easily.

NEW! Conteg Certification Program !

The Conteg certification program provides quality training for our business partners and integrators worldwide. We offer a wide range of certificates that are technically oriented. Certification training is carried out by our technical staff, in collaboration with local sales representatives. It is a personal training and we use our wide network of show rooms in the EMEA, as well as our training center at the factory in Pelhřimov, Czech Republic. Passing the certification training will help our partners fully understand all details of our products, solutions, and our sales strategy with the goal to improve our services to our customers. For a detailed Training Calendar and Certification schedule, check our website or contact your local sales representatives.

CONTEG CERTIFICATES:

CDCS – Conteg Data Center Solutions - For DC designers, project managers, professionals responsible for DC implementation

CDCSI – Conteg Data Center Solutions Integrator - For companies whose employees successfully passed CDCS

TRS – Total Rack Solutions - For sales representatives, pre-sales, Inside-sales, installers

CCIP – Conteg Certified Installation Partner – For installation companies and installers

CTSS – CoolTeg Start-up Service - For cooling professionals

CCSP – Conteg Certified Service Partner - For cooling professionals and companies

CONTEG participates in many seminars and conferences. Please visit us at following forums and seminars.

| Conferences and seminars 2012 / 2013 | | | |
|--------------------------------------|------------------------------------|-------------------------------|---|
| Date | Conference / seminar | Place | |
| 29th October 2012 | Datacenter Dynamics Amsterdam | Amsterdam, The Netherlands |  DatacenterDynamics AMSTERDAM - 29 OCTOBER 2012 |
| 1st November 2012 | Datacenter Dynamics Moscow | Moscow, Russia |  DatacenterDynamics MOSCOW - 1 NOVEMBER 2012 |
| 12th November 2012 | Datacenter Dynamics Dubai | Dubai, UAE |  DatacenterDynamics DUBAI - 12 NOVEMBER 2012 |
| March 2013 | Datacenter Dynamics Riyadh | Riyadh, Saudi Arabia |  DatacenterDynamics RIYADH - MARCH 2013 |
| March 2013 | Datacentres Europe | Moscow, Russia |  BROADGROUP consulting in practice |
| May 2013 | Datacenter Dynamics St. Petersburg | St. Petersburg, Russia |  DatacenterDynamics ST. PETERSBURG - MAY 2013 |
| May 2013 | Datacentres Europe | Nice, France |  BROADGROUP consulting in practice |
| June 2013 | Datacenter Dynamics Paris | Paris, France |  DatacenterDynamics PARIS - JUNE 2013 |



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