Rittal – The System.
Faster – better – everywhere.

Add value with our innovations – Enhance your productivity
Rittal – The System.

Faster – better – everywhere.

Industry meets IT

Integrated information – networked processes

The entire world is talking about Industry 4.0, the Industry of Things and the Digital Factory. One thing is clear: the fourth industrial revolution is in full swing, and there’s no stopping the union between industry and IT. Some of it is still a vision, but for Rittal, many aspects are already a reality: integrated engineering, standardised system technology and automated machining. We ensure a smooth progression from engineering to automated enclosure manufacturing.

Take advantage of our know-how – from industrial enclosure manufacturing through to a complete IT infrastructure portfolio, such as the standardised data centre RiMatrix S. Accelerate your processes with our contribution to Industry 4.0 and enjoy a saving in time of up to 50 percent.
Move up to the next level for industry!
Redefine your value chain in control and switchgear engineering.

- Link key process stages together instead of operating in isolation
- Stop walking, and start running!

- Systematically combine the virtual and real worlds
- Accelerate your production by integrating design and engineering through to the automated machining of enclosures

Your single point of contact for the next level for industry now has a name: Rittal.
Integrated added value

Four companies, one entire process
The alliance between Eplan, Cideon, Rittal and Kiesling is the only one of its kind in the world. It combines the process stages right from design engineering including enclosure technology solutions to enclosure machining into one single fully integrated process.
Add value with our innovations – Enhance your productivity

Engineering

Maximise the benefits:
- EPLAN Data Portal – Over 350,000 data records for project management in electrical engineering
- EPLAN Electric P8 and EPLAN Pro Panel – Consistent project management, documentation and administration

System

Maximise the benefits:
- Innovative modular system
- Tested quality
- Optimum cost efficiency
- Available for immediate, worldwide delivery
Your productivity is our business

Automation

Maximise the benefits:
- Fully automated machining of enclosures, cases and mounting plates
- Fully automated wiring of mounting plates
- Manufacturing support in the areas of cutting, configuration and handling
Start out right

With Eplan, you are placing your trust in Europe’s leading solutions for the engineering process. The Eplan platform integrates all relevant works in the development and design process. The EPLAN Data Portal is the basis for cross-platform engineering, with a Web service for high-quality device data available worldwide.

EPLAN Electric P8 – the high-end tool for process-oriented project management, documentation and administration of electrical automation projects – is incorporated into the Eplan platform.

- EPLAN Data Portal – Over 350,000 components for project management in electrical engineering
- EPLAN Electric P8 – Innovative project management, documentation and administration
- Flexible – Consistent support of graphic and device-oriented project management
- Macro-technology – Scalable, based on sets of technical values and graphical variants
- Logical check functions
- Support of international standards
- Platform technology – Direct communication between electrical, fluid and instrumentation technology
Add value with our innovations – Enhance your productivity
Simple calculations

The application-dependent design is a key element in the engineering process of an automation plant. "Rittal Power Engineering" allows you to easily configure standard-compliant Ri4Power low-voltage switchgear and busbar systems – with integral design verification. Our "Therm" software provides precise, fast calculation of your climate control requirements and helps you to design suitable climate control measures – also available as an App.

- **Power Engineering**
  Fast, easy switchgear planning

- **Therm**
  Calculation program for enclosure climate control

- **RiCAD-3D**
  3D data that enables efficient planning
Add value with our innovations – Enhance your productivity
"Rittal – The System." Due to its coordinated, innovative modular system, Rittal’s solutions offer maximum cost efficiency for your company, whatever its size. Tested components with regard to IP protection category, strength requirements and PE conductor function – ideal for compliance with standard IEC 61 439.

- Enclosures
- Power distribution
- Climate control
- IT infrastructure
- Software & services
Holistic project planning

Based on electrical project management and hardware engineering, correct system-based design of power distribution and climate control, backed up by technological data on Rittal system components, EPLAN Pro Panel allows you to achieve a virtual enclosure assembly layout. EPLAN Pro Panel is the software solution for technological project management and 3D assembly layout of enclosures. Consistent product data from the EPLAN Data Portal supports interdisciplinary engineering in electrical design and enclosure project management. The virtual 3D product data model provides all data needed to control NC production machines.

Eplan platform
- EPLAN eTouch – Assembly layout in 3D
- Planning aids for perfect dimensioning and space utilisation
- Virtual wiring
- Construction of copper bars – Including cutting to length, bending and connecting
- Supply of documents for material logistics and manufacturing
- Machine control during machining of parts
- Supply of data for machine wire and cable assembly
Add value with our innovations – Enhance your productivity
Automatic machining

The NC data output from EPLAN Pro Panel provides the basis for the professional machining of enclosures, cases and mounting plates. All machining (drilling, thread-tapping, milling) operations are fully automated, fast, precise and reliable with "Perforex" machining centres from Kiesling. The cost-intensive, time-consuming manual machining of enclosure parts is eliminated altogether, for the ultimate efficiency boost!

Optimisation of the entire workflow with Kiesling mechanical engineering:
- Perforex – NC metal machining centres
- Secarex – Cutting centre for cable ducts and top hat rails
- Athex – Automatic assembly of terminal strips
- Averex – Mass-wiring of mounting plates
- Panel Scout – Function testing and test runs
Add value with our innovations – Enhance your productivity
IEC 61 439-compliant documentation

Prepare your documentation to the latest standard IEC 61 439. Many Rittal components already meet the defined requirements, and have done for many years. Now, we can help you to prepare the required documentation with superbly coordinated processes in the value chain.

Harmonised and documented processes
- Planning and project management with engineering solutions from Eplan
- Calculation and design using tools from Rittal
- Tested system components from Rittal
- 3D enclosure layout with engineering solutions from Eplan
- Machining with the Kiesling machining centre
Maximise potential savings

Potential savings of up to 50%
- Shorter throughput times
- Enhanced quality
- Flexible response to customer requirements
- Faster delivery
- Cost transparency
- Standard-compliant documentation

Up to 50% faster processes
- Lower costs versus conventional machining
- Reduced throughput times
- Flexible response to customer requirements
- Shorter delivery times
- Cost control
Add value with our innovations – Enhance your productivity

Potential savings of up to 50%
Rittal – The System.

Faster – better – everywhere.

- Utilise the consistent compatibility of the world’s largest system of enclosures, power distribution, climate control and IT infrastructure
- At the same time, reduce your procurement, design, editing and installation work

Boost your efficiency.
With system components from Rittal.

In the second part of this brochure, you will find product innovations designed to save you time and money with procurement, design and assembly, under the heading "Rittal – The System."

Allow us to convince you with the following examples.
Rittal – The System.
Faster – better – everywhere.

Add value with our innovations – Enhance your productivity
System enclosures SE 8

Reduce assembly costs

High compatibility, minimal assembly work
- Identical mounting plate and compatibility with the TS 8 baying system for uniform engineering
- Flexible mounting plate attachment with clip for fast one-person assembly

Integral construction technique – complete, stable and time-saving
- Roof and sides from a single piece with roll-formed "frame"

Greater variability and reliability
- Wide range of sheet steel and stainless steel variants for almost any application area
- High protection category, optionally IP 55/NEMA 12 or IP 66/NEMA 4 (4X) available as standard
- Now even more efficient to configure and use, thanks to enclosure widths up to 1800 mm with one continuous mounting plate
Rittal – The System.
Faster – better – everywhere.
Support arm system CP 60/120/180

The system for all load levels

Components may be individually combined depending on the load
- Variable system for all load levels up to 1,800 N
- Simple system replacement of the vertical support arm components – to adapt to individual weight loads and to cut costs and weight

Efficient cable management
- Cross-section sufficient for large connectors
- Supports simple separation between data and power cables
- Flexible cable entry and routing options
- Open support section for easy upgrade and servicing access

Multi-functional assembly
- Uniform adjustment principle, even retrospectively without dismantling
- Perfect limitation of rotation ranges
- Simple, one-person installation
- Sections are easily cut to the required length

High standard of electrical safety
- Automatic, consistent potential equalisation of all support arm components
- Consistent cable protection thanks to rounded edges and special cable protection elements
Rittal – The System.
Faster – better – everywhere.

Add value with our innovations – Enhance your productivity
Operating housing with handle strips

Ergonomic design

Attractive combination of function and design
- Ergonomically appealing handle strips for superior handling
- Attractive design for optimum functional support
- Adapted to support arm system CP 60/120/180

Quick to install, easy to use, locks simply
- Standard interior installation bracket with TS system punchings, to match TS system accessories
- Fast, safe, simple servicing access from the front or rear
- Intelligent lock with integral door runners for easy locking
Rittal – The System.

Faster – better – everywhere.
PC enclosure based on SE 8

All-in-one solution – Protection and workstation

Solutions for almost any application

- Innovative keyboard drawer concept
  - Handle strip folds down to serve as a handrest during data input
  - Integral mousepad extension piece, pulls out to the left or right
  - Stowage tray for mouse behind the keyboard
- Alternative operating concept via fold-out tray or desk section

More space – more options

- Now also available in 800 mm width, e.g. for 24” TFT

Practical – The wide range of functions

- Gap-free design provides greater protection from dust and moisture
- Practical rear door allows easy access for servicing
- Also available in stainless steel, see Cat. 34, page 187
- Robust glazed door with supporting frame and single-pane safety glass
- High level of access protection thanks to moulded side panels and roof, plus interior glazed door lock and lockable keyboard drawer
- Secure cable routing, thanks to cable supports on the keyboard extension piece
Rittal – The System.

Faster – better – everywhere.
Flex-Block base/plinth system

Tool-free assembly

Simple assembly
- Tool-free assembly of all base/plinth components
- Tool-free mounting of accessories, e.g. baying and levelling feet

Assembly-friendly system
- Symmetrical enclosure widths and depths
- Combinations of 100 and 200 mm high trim panels may be used with the 200 mm high Flex-Block

More installation freedom
- Space-saving cable management in the base/plinth means more space for enclosure configuration
- Configuration with punched rail – clip into position from outside or inside
- Flexible configuration: Punched rail with 25 mm pitch pattern of holes
Rittal – The System.

Faster – better – everywhere.
TS isolator door cover

Easy to assemble

Simple assembly
- Useful mounting aid for simple positioning and high standards of work safety
- One-person assembly
- May be mounted on the left or right of the enclosure
- Mounting plate depth-adjustable and bayable to the TS 8 mounting plate

Precise adjustment of the mechanism
- Pre-configured mechanical system for fast assembly
- No machining needed
- Easily adjustable for reliable functioning
Rittal – The System.

Faster – better – everywhere.

Add value with our innovations – Enhance your productivity
Ri4Power system 185 mm

Reliable contact

System assembly – no drilling required
- For busbar dimensions 30 x 10 to 120 x 10 mm
- New contact system allows components to be top-mounted on the cover section and busbar support
- Components easily retrofitted without removing the cover section

Form-fit connection system
- Component adaptor for reliable use of standard compact circuit-breakers 630 to 1600 A
- Make contact without drilling
- Pre-assembled connection kits from the adaptor to the circuit-breaker

Fuse elements – to suit all situations
- NH fuse-switch disconnectors, sizes 00 to 3, with or without fuse monitoring
- Single-pole or 3-pole switched variants
- Separate air routing to counteract temperature rise and selectively remove switching gases
Rittal – The System.

Faster – better – everywhere.

FRIEDHELM LOH GROUP

Add value with our innovations – Enhance your productivity
Bus-mounting fuse bases

Faster contacting

Easy Connect – pre-configured ready to connect
- The Easy Connect bus-mounting fuse bases are supplied as complete units, so all you have to do is:
  - Unpack
  - Snap into position
  - Connect

Reliable attachment and contact
- Spring-mounted contact plates and multi-track threads in the screw cap mountings offer:
  - Easy snap-fastening
  - Optimum contact-making
  - Good heat dissipation
  - Busbar surface protection
- For 5 mm and 10 mm busbars
- Integral anti-slip guard
- Unlatch button allows simple removal
- Flexible cable routing up to 16 mm²
  - Between the bus-mounting fuse bases
  - In the side connection space extender
  - Below the busbar
- Direct connection via integral connection clamp
Rittal – The System.
Faster – better – everywhere.
Ri4Power ISV distribution enclosures

Use the diversity

The benefits of this large family
- By using the TS, SE or AE enclosure system, the new ISV product portfolio builds on a system that has already been proven a million times over. This means that the distribution enclosures are members of a global family, with the following benefits:
  - Large selection of enclosure types
  - Simple assembly
  - Fast, ergonomic installation
  - With stainless steel enclosure types available as standard, also ideally suited for exposed and aggressive ambient conditions
  - A diverse range of enclosure accessories

Remain transparent and independent
- Design verification to IEC 61 439
- Manufacturer-independent device selection
  - ABB
  - Eaton
  - Schneider Electric
  - Siemens
Rittal – The System.
Faster – better – everywhere.
TopTherm fan-and-filter units with EC technology

Controlled efficiency

Monitoring
- The control interface integrated into the fan with tachometer signal output may be used for monitoring the fan speed and fan function in EC fan-and-filter units
  – via the control unit for EC fan-and-filter units and the sensor for speed control
- With this monitoring system, fan failures are reported directly, enabling you to respond immediately rather than waiting until the temperature inside the enclosure exceeds the alarm setting

Control
- TopTherm EC fan-and-filter units support a virtually linear control response
- Activation is via the 0 – 10 V interface built into the EC fan or PWM signal
  – via the control unit for EC fan-and-filter units and the sensor for speed control
Rittal – The System.

Faster – better – everywhere.
TopTherm cooling units
TÜV-tested output

TÜV-tested output to EN 14511:2012-01
Rittal is the only supplier in the world to supply an entire range of enclosure cooling units tested to the latest (DIN) EN standard.

Genuine, clear performance data – TÜV-tested and guaranteed
All TopTherm cooling units in the output range from 300 to 4,000 W are tested to the latest EN 14511:2012-01 standard by the independent test institute TÜV NORD, and are authorised to carry the relevant test mark for the entire series.¹)
- Proven additional performance of up to 10%
- Increased EER (energy efficiency ratio)

¹) Except cooling units with Atex approval for Zone 22

Basis of test: DIN EN 14511:2012-01
This European standard sets out the conditions for testing the output of air conditioning units, liquid cooling packages and heat pumps that use air, water or brine as a thermal transfer medium, with electrical compressors for space heating and/or cooling. It also specifies the conditions for testing multi-split heat recovery systems.
Rittal – The System.
Faster – better – everywhere.
LCP – Liquid Cooling Package for industry

Integrated cooling

Cools between the front panels, left and right

- Bayable to all 600 or 800 mm deep and 2000 mm high TS 8 enclosures
- Flexible baying options allow efficient, space-saving installation
  - between two enclosures or
  - at the end of a bayed enclosure suite

Powerhouse in a very small space

- The compact design gives plenty of performance in a limited space
- High heat loads can be dissipated from the enclosure in two ways
  - On both sides with 5 kW each
  - On one side with 10 kW

Variable cooling water connection

- The water supply may optionally be connected to the top or bottom of the unit

Air outlet on both sides with 5 kW each

Air outlet on one side with 10 kW
Rittal – The System.
Faster – better – everywhere.
Configuration and CAD data
Always up-to-date

Use software to dimension and design your support arm systems
- Software-assisted design based on user-specific parameters
- Individual assembly tailored to the specific application requirements
- Built-in consistency check
- A parts list is produced for each configuration, with the option of transferring into an enquiry or order

CAD data accessible from anywhere
- CAD data as a mobile app
- Data can be requested via any e-mail address
- Selection of a suitable CAD format
- Direct link to the relevant page in the latest Rittal Catalogue for an "all-in-one" solution

Compact climate control calculation
- Compact version of the "Therm" software for rapid selection
- Intelligent calculation of your individual climate control requirements
- Convenient forwarding of the results by e-mail
- Evaluations based on IEC/TR 60 890 AMD1 and DIN 3168 for enclosure cooling units
Rittal – The System.
Faster – better – everywhere.

RiMatrix
The system for individual IT solutions

IT components for modern infrastructures
If you want to assemble and expand a modular IT system, step by step, you’ve come to the right place. The RiMatrix system from Rittal offers a huge range of components for flexible configuration of forward-looking data centre infrastructures.

The broad range includes
- IT enclosure systems and housings
- IT power
- IT cooling
- IT monitoring
- IT security solutions
All components are available off the shelf with short delivery times.
Add value with our innovations – Enhance your productivity
Rittal – The System.
Faster – better – everywhere.
Network/server enclosures TS IT

Tool-free assembly

Forget the toolbox
- Essentially tool-free installation of all slide rails, component shelves, telescopic slides and much more
- Simply locate into the rear mounting angle, extend to the required size, and secure at the front

No more tedious screw-fastening; simply locate and connect
- The side panel is divided to allow easy one-person assembly
- Locate the side panel at the top, slot in at the bottom, snap shut – and it’s done; no screw-fastening required
- Quick-release fasteners with integral lock, additionally with internal latch, for enhanced security
Rittal – The System.

Faster – better – everywhere.

Add value with our innovations – Enhance your productivity.
Power Distribution Unit

Efficient power distribution

Economical and safe, with measurement and monitoring
- Comprehensive management and monitoring functions
- Measurement of power, current, active and apparent power and power factor
- Measurement of energy consumption and zero conductor current (with 3-phase PDUs)
- Connection options for CAN sensors (temperature/humidity/access)
- TCP/IP v4 and v6 plus SNMP
- Future-proof – with optional integration via the IP interface, e.g. into RiZone or third-party systems
- Minimal energy consumption thanks to bistable relays

Fits everywhere
- Complete range of international sockets
- Various designs to suit every application
- Super-easy assembly – with time-saving, tool-free snap-in system in the TS IT rack
- Flexible installation at the required height in the zero-U space
- Two bayed PDUs may be fitted in 800 mm wide racks
Rittal – The System.

Faster – better – everywhere.
LCP – Liquid Cooling Package DX

Efficient cooling of compact systems

More performance in a minimal space

- Maximum energy efficiency, thanks to EC fan technology and IT-based control
- Minimal air-side pressure loss, which in turn minimises the power consumption of the fans
- The speed-regulated compressor means that the cooling output is ideally adapted to actual requirements
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room
- Ideal for IT cooling in small and medium-sized locations
Rittal – The System.

Faster – better – everywhere.
CMC III Processing Unit/Compact

Reliable monitoring of processes

Round-the-clock monitoring
- Autonomous monitoring system with e-mail and text alarm message function
- Modular bus sensors for the assembly of individual applications
- Reliable data communication between components via CAN bus technology
- Simple, fast wiring with CAN bus topology and standard cable (RJ 45)
- Redundant power supply, also with Power over Ethernet (PoE)

- Integral Web interface for configuration and operation via the network using a Web browser
- Connection to DCIM software via SNMP (v1, v2c, v3)
- Connection to building management or control room systems via OPC UA
- Automated actions may be programmed individually
Rittal – The System.

Faster – better – everywhere.

Add value with our innovations – Enhance your productivity
Micro Data Centre as compact data centre

Reliable prevention of data losses

A safe that controls everything
- Robust, flexible rack, especially for server and network technology
- The safe and computer form a compact unit, creating a superbly protected, highly efficient data centre in a minimal space
- Efficient cooling solutions in a range of designs and outputs

- IT-specific power distribution
- Networkable monitoring and security solutions with the CMC III system
- Early fire detection and automatic rack extinguishing
Rittal – The System.
Faster – better – everywhere.

RiMatrix S
The first standardised data centre

Standardised, off-the-shelf data centre modules
Fully pre-configured data centre modules in the RiMatrix S series offer a pioneering alternative to building your own data centre. They already include all the necessary components such as:

- IT enclosure systems
- Power backup and distribution
- Climate control
- Monitoring and security solutions

A single Model Number is all you need to order a complete RiMatrix S module. Complete RiMatrix S data centres can be assembled in next to no time, because all modules are available off the shelf.
Rittal – The System.

Faster – better – everywhere.

Add value with our innovations – Enhance your productivity.
RiMatrix S – The standardised data centre

Complete system as standard

IT infrastructure – Fully operational
- The data centre modules are pre-configured and therefore ready for immediate installation of the IT equipment
- The complete system is fully functional including server and network enclosures, climate control, power distribution and back-up, monitoring and optionally with RiZone, the DCIM (Data Center Infrastructure Management) system
- Documented system test of the entire module

Operational within 6 weeks – Complete and off the shelf
- To order RiMatrix S, you only need one Model Number for the entire data centre
- Supplied off the shelf
- Lead time from ordering to commissioning: just 6 weeks

The right physical structure for every requirement
- The modules are supplied with the right physical structure to suit the application
  – In a standard room or standard security room for installation in existing properties
  – In a standard container for outdoor siting
Innovations 2014

Brand new additions to Rittal Catalogue 2014/2015
Hot on the heels of the latest 744 page Rittal catalogue is a clutch of new products about to hit the shelves. This reflects our outstanding capacity for innovation and ongoing adaptation to customer needs.

Take advantage of the latest ordering options
Over the following pages, you will find all the latest additions to the 2014/2015 Rittal catalogue, including the relevant ordering information. This means that you can plan and order any products and components that might interest you straight away.
Add value with our innovations – Enhance your productivity
## Baying systems TS 8

**Add value with our innovations – Enhance your productivity**

### System accessories


- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Glazed door: Extruded aluminium section, single-pane safety glass, 3 mm, powder-coated
- Rear door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

### Colour

- RAL 7035

### Protection category IP to IEC 60 529:

- IP 55

### Supply includes:

- Enclosure frame
- Roof plate
- Gland plates
- Glazed door at the front, 180° hinges
- Rear door, 130° hinges
- 4 eyebolts
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E

### Approvals:

- UL
- cUL

### Technical details:

Available on the Internet

### Enclosure with glazed door at the front, rear door

<table>
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<th>600</th>
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<th>800</th>
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</table>

2 support strips fitted in the enclosure depth

### Accessories

- Side panels, screw-fastened, sheet steel 2 pc(s)
- Flex-Block corner pieces, 100 mm 1 set(s)
- Flex-Block trim panels, 100 mm, sealed, for width 1 set(s)
- Flex-Block trim panels, 100 mm, sealed, for depth 1 set(s)
- Flex-Block corner pieces, 200 mm 1 set(s)
- Flex-Block trim panels, 200 mm, sealed, for width 1 set(s)
- Flex-Block trim panels, 200 mm, sealed, for depth 1 set(s)
- Base/plinth components, front and rear, 100 mm 1 set(s)
- Base/plinth components, front and rear, 200 mm 1 set(s)
- Base/plinth trim panels, side, 100 mm 1 set(s)
- Base/plinth trim panels, side, 200 mm 1 set(s)
- Levelling feet 4 pc(s)
- 482.6 mm (19") installation system from page 678
- 482.6 mm (19") mounting frame see page 72

### Materials/surface finish:

- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Glazed door: Extruded aluminium section, single-pane safety glass, 3 mm, powder-coated
- Rear door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

### Colour:

- RAL 7035

### Protection category IP to IEC 60 529:

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### Supply includes:

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### Approvals:

- UL
- cUL

### Technical details:

Available on the Internet

### System accessories

Network/server enclosures TS IT

with vented door for room climate control

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<tr>
<td>Model No.</td>
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</table>

Product-specific scope of supply

- Sheet steel door at the front, vented (vented surface approx. 85% perforated), 180° hinges
- Sheet steel door at the rear, vertically divided, vented (vented surface approx. 85% perforated), 180° hinges
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E
- Two 482.6 mm (19") mounting sections front and rear, variably mounted on support strips with quick-release fasteners
- Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- Connection accessories for potential equalisation with central earthing point (supplied loose)
- Multi-tooth screws M5, cage nuts M5, conductive (supplied loose)

Accessories

- Side panels, divided
- Base mount
- Gland plates
- Base/plinth
- Fan mounting plate
- Air baffle plates
- Cable route
- Other accessories

Material:
- Sheet steel

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation: RAL 9005

Load capacity of the 482.6 mm (19") mounting angles:
- 15000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
- Please note the product-specific scope of supply.

Note:
- Depending on the siting type and location, the door opening may vary for selected applications

Approvals:
- UL
- cUL

Technical details:
Available on the Internet
Available from November 2014

System accessories Cat. 34, Page 507
IT power Cat. 34, Page 407
Monitoring Cat. 34, Page 445
IT cooling Cat. 34, Page 427
with vented door for room climate control, pre-configured

<table>
<thead>
<tr>
<th>Units U</th>
<th>Packs of</th>
<th>42</th>
<th>Cat. 34, page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width mm</td>
<td></td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Height mm</td>
<td></td>
<td>2100</td>
<td></td>
</tr>
<tr>
<td>Depth mm</td>
<td></td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Model No.</td>
<td>1 pc(s).</td>
<td>5509.160</td>
<td></td>
</tr>
</tbody>
</table>

**Product-specific scope of supply**

- Sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges [1 pc(s.)]
- Sheet steel door at the rear, vertically divided, vented (vented surface area approx. 85% perforated), 180° hinges [1 pc(s.)]
- Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E [1 pc(s.)]
- Two 482.6 mm (19”) mounting sections front and rear, variably mounted on support strips with quick-release fasteners [1 pc(s.)]
- Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate [1 pc(s.)]
- Spacers to raise the fan cover plate, for passive cooling (supplied loose) [4 pc(s.)]
- Connection accessories for potential equalisation with central earthing point (supplied loose) [1 set(s.)]
- Multi-tooth screws M5, cage nuts M5, conductive (supplied loose) [50 pc(s.)]
- Base mount [2 pc(s.)]
- Gland plate, one-piece, vented, with cable entry [1 pc(s.)]
- Flex-Block base/plinth 100 mm, vented [1 set(s.)]
- Side panels, one-piece, lockable [2 pc(s.)]
- Levelling feet incl. base/plinth adaptor sleeve (supplied loose) [4 pc(s.)]
- Cable clamp rail (T-head) for outer mounting level, to fit enclosure depth (supplied loose) [4 pc(s.)]
- Cable shunting rings, 125 x 65 mm (supplied loose) [10 pc(s.)]

**Accessories**

- Side panels, divided [1 pc(s.) 5501.030 536]
- Gland plate, module types [from page 528]
- Fan mounting plate [1 pc(s.) 5502.020 437]
- Air baffle plates [1 set(s) 5501.815 692]
- Cable route [1 pc(s.) 5502.120 672]
- Cable duct [1 pc(s.) 5502.105 673]
- Other accessories [from page 507]
Network/server enclosures TS IT

Material:
- Sheet steel
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure frame and panels: RAL 7035
- Interior installation: RAL 9005

Load capacity of the 482.6 mm (19") mounting angles:
- 15000 N

Supply includes:
- TS 8 enclosure frame with doors and roof plate
Please note the product-specific scope of supply.

Note:
- Depending on the siting type and location, the door opening may vary for selected applications

Technical details:
Available on the Internet
Available from November 2014

with glazed door for rack climate control, pre-configured

<table>
<thead>
<tr>
<th>Units U</th>
<th>Packs of</th>
<th>42</th>
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<tr>
<td>Depth mm</td>
<td></td>
<td>800</td>
<td>800</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

Model No. 1 pc(s).
5507.150 5507.170 5509.150

Product-specific scope of supply

| Glazed aluminium door at the front, 180° hinges 1 pc(s). ■ ■ ■ |
| Sheet steel door at the rear, vertically divided, 180° hinges 1 pc(s). ■ – ■ |
| Lock front and rear: Comfort handle for semi-cylinders and security lock 3524 E 1 pc(s). ■ ■ 1) ■ |
| Sheet steel rear panel 1 pc(s). – ■ – |
| Two 482.6 mm (19") mounting sections front and rear, variably mounted on support strips with quick-release fasteners – ■ – ■ |
| Swing frame, large, with side trim panel, 180°, 150 kg static load capacity – ■ – ■ |
| Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate 1 pc(s). ■ – ■ |
| Roof plate, multi-piece, removable, for rear cable entry in the enclosure width and covered cut-out for fan mounting plate – ■ – ■ |
| Spacers to raise the fan cover plate, for passive cooling (supplied loose) 4 pc(s). ■ ■ ■ |
| Connection accessories for potential equalisation with central earthing point (supplied loose) 1 set(s). ■ ■ ■ |
| Multi-tooth screws M5, cage nuts M5, conductive (supplied loose) 50 pc(s). ■ ■ ■ |
| Base mount 2 pc(s). ■ ■ ■ |
| Base module mounted at front as infill panel 1 pc(s). ■ – ■ |
| Gland plate, one-piece, vented, with cable entry 1 pc(s). ■ ■ ■ |
| Flex-Block base/plinth 100 mm, vented 1 set(s). ■ ■ ■ |
| Side panels, one-piece, lockable 2 pc(s). ■ – ■ |
| Levelling feet incl. base/plinth adaptor sleeve (supplied loose) 4 pc(s). ■ ■ ■ |
| Cable clamp rail (T-head) for outer mounting level, to fit enclosure depth (supplied loose) 4 pc(s). ■ ■ ■ |
| Cable ducting rings, 125 x 65 mm (supplied loose) 10 pc(s). ■ ■ ■ |

Accessories
Side panel, lockable 2 pc(s).
Gland plates 1 set(s).
Fan mounting plate 1 pc(s).
Air baffle plates 1 set(s).
Cable route 1 pc(s).
Cable duct 1 pc(s).

1) Front only, rear panel without handle

Add value with our innovations – Enhance your productivity
Network/server enclosures TS IT

Accessories

Mounting frame, 482.6 mm (19")
for TS, TS IT

Firmly linked 482.6 mm (19") mounting frame for integration of a 482.6 mm (19") mounting level within a TS frame structure. Profiles analogous to TS IT for complete system compatibility, including tool-free assembly. Depth-variable mounting between the roof and base frames. Individual height units bi-directionally numbered. Mounting frame at the front, prepared for the integration of cable management and Dynamic Rack Control (RFID), mounting frame at the rear for space-saving integration of the PDU busbar, in the Zero-U space on both sides.

Load capacity:
– Up to 1,000 kg static load, with even load distribution on two mounting frames, with full installation.

<table>
<thead>
<tr>
<th>Width mm</th>
<th>Height mm</th>
<th>Installation position</th>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>1800</td>
<td>front</td>
<td>1 pc(s).</td>
<td>5501.242</td>
</tr>
<tr>
<td>600</td>
<td>1800</td>
<td>rear</td>
<td>1 pc(s).</td>
<td>5501.245</td>
</tr>
<tr>
<td>800</td>
<td>1800</td>
<td>front</td>
<td>1 pc(s).</td>
<td>5501.252</td>
</tr>
<tr>
<td>800</td>
<td>1800</td>
<td>rear</td>
<td>1 pc(s).</td>
<td>5501.255</td>
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<tr>
<td>600</td>
<td>2000</td>
<td>front</td>
<td>1 pc(s).</td>
<td>5501.262</td>
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<tr>
<td>600</td>
<td>2000</td>
<td>rear</td>
<td>1 pc(s).</td>
<td>5501.265</td>
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<tr>
<td>800</td>
<td>2000</td>
<td>front</td>
<td>1 pc(s).</td>
<td>5501.272</td>
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<tr>
<td>800</td>
<td>2000</td>
<td>rear</td>
<td>1 pc(s).</td>
<td>5501.275</td>
</tr>
<tr>
<td>600</td>
<td>2200</td>
<td>front</td>
<td>1 pc(s).</td>
<td>5501.285</td>
</tr>
<tr>
<td>600</td>
<td>2200</td>
<td>rear</td>
<td>1 pc(s).</td>
<td>5501.292</td>
</tr>
<tr>
<td>800</td>
<td>2200</td>
<td>front</td>
<td>1 pc(s).</td>
<td>5501.295</td>
</tr>
</tbody>
</table>

Material:
– Sheet steel

Surface finish:
– Primed

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Note:
– The outer mounting level of the enclosure frame is left free for other installed equipment; all-round compartmentalisation with air baffle plates is supported.

Available from November 2014

Additional fastening attachment for mounting angles
for TS IT

Prevents the mounting angles from twisting in case of unequally distributed loads. Secured directly between the mounting angle and a mounting section on the outer mounting level of the TS frame structure. Tool-free mounting, with optional screw fastening.

Material:
– Sheet steel

<table>
<thead>
<tr>
<th>For enclosure width mm</th>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>2 pc(s).</td>
<td>5501.225</td>
</tr>
<tr>
<td>800</td>
<td>2 pc(s).</td>
<td>5501.235</td>
</tr>
</tbody>
</table>

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Gland plate, one-piece, vented
for TS, TS IT

To completely cover the open base assembly in one piece. Perforated over the entire surface. Cold air is able to flow in from the base or base/plinth area. This ensures the inflow of cold air, particularly in enclosures with rack climate control. With rear brush strip for user-friendly cable entry from below over the entire enclosure width. Integral card guides mean that filter mats are easily accommodated and replaced.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Gland plate with filter mat, including assembly parts

<table>
<thead>
<tr>
<th>For enclosures Width mm</th>
<th>Depth mm</th>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>600</td>
<td>1 pc(s).</td>
<td>5502.310</td>
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<tr>
<td>800</td>
<td>800</td>
<td>1 pc(s).</td>
<td>5502.330</td>
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<tr>
<td>600</td>
<td>1000</td>
<td>1 pc(s).</td>
<td>5502.340</td>
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<tr>
<td>800</td>
<td>1000</td>
<td>1 pc(s).</td>
<td>5502.350</td>
</tr>
<tr>
<td>600</td>
<td>1200</td>
<td>1 pc(s).</td>
<td>5502.360</td>
</tr>
<tr>
<td>800</td>
<td>1200</td>
<td>1 pc(s).</td>
<td>5502.370</td>
</tr>
</tbody>
</table>

Also required:
– Base mount for TS IT in accordance with the enclosure depth, see Cat. 34, page 524

Accessories:
– Spare filter mat, 5502.380
PC enclosure systems

For use of TFT monitors up to 24"
Secure accommodation of all PC components, from monitors, to PCs, to keyboards. For ultimate ease of operation in a modern design. Perfect protection from humidity and dirt, temperature fluctuations and unauthorised access.

Material:
- Enclosure, door, mounting compartment, supports: Sheet steel
- Handles, decorative trim panels: Plastic
- Door trim panels: Aluminium
- Viewing window: Single-pane safety glass

Surface finish:
- Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Mounting compartment, support: powder-coated

Colours:
- Enclosure, door, decorative trim panels, supports: RAL 7035
- Handle: Similar to RAL 9006
- Monitor field, central door section: RAL 7015

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, door, rear door Please note the product-specific scope of supply.

Approvals:
- UL
- cUL

Technical details:
Available on the Internet

Width 800 mm

<table>
<thead>
<tr>
<th>Width mm</th>
<th>Packs of</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Height mm</td>
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<td></td>
<td></td>
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<tr>
<td>Depth mm</td>
<td>636</td>
<td>636</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product-specific scope of supply

| Glazed door, top | |
| Keyboard drawer | |
| Component shelf | |
| Folding keyboard | |
| Desk section | " |
| Mounting compartment, small | " |
| Mounting compartment, large | " |
| Monitors up to 24" | " |

Model No. 5386.000
Max. keyboard dimensions (WxHxD) mm 480 x 70 x 260

Accessories

| Base/plinth components, front and rear, 100 mm | 1 set(s) | 8801.800 | 513 |
| Base/plinth components, front and rear, 200 mm | 1 set(s) | 8802.800 | 513 |
| Base/plinth trim panels, side, 100 mm | 1 set(s) | 8601.060 | 514 |
| Base/plinth trim panels, side, 200 mm | 1 set(s) | 8602.060 | 514 |
| Partial mounting plates | see page | 596 |
| Paper removal flap | 1 pc(s) | 6903.200 | 713 |
| Socket strips in an aluminium duct | see page | 422 |
| Lock systems | from page | 561 |
System accessories

Accessories

Mini-comfort handle
for AE with cam, including
VW E1 lock
For retro-fitting to AE enclosures with cam locks.
Handle mounting:
- vertically from an enclosure height of 380 mm
- horizontally from an enclosure width of 300 mm
is supported
Material:
- Die-cast zinc
Surface finish:
- Powder-coated

<table>
<thead>
<tr>
<th>Version</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAL 7035</td>
<td>2537.045</td>
</tr>
</tbody>
</table>

Note:
- Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key

Rail
for EMC shielding bracket and strain relief
Combined rail for strain relief and EMC contacting of inserted cables.
Mounting options
- On the horizontal/vertical TS, SE, PC enclosure section
- May also be fitted without a retaining bracket on a mounting plate
Additional contacting on the left or right of the rail via existing holes (9 mm diameter)
Design:
- C rail to accommodate cable clamps
- T-head cut-outs on a 40 mm pitch pattern for cable clamping with cable ties
- Prepared for tool-free mounting of EMC shielding brackets
Material:
- Extruded aluminium section
Surface finish:
- Chrome-free passivated
Supply includes:
- 1 rail
- 2 retaining brackets
- Assembly parts

<table>
<thead>
<tr>
<th>Width mm</th>
<th>Packs of</th>
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<tbody>
<tr>
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<tr>
<td>1200</td>
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</tr>
</tbody>
</table>

Also required:
- EMC shielding brackets, see Cat. 34, page 641.
- Cable clamps for strain relief, see Cat. 34, page 666

Accessories:
- Earth straps, see Cat. 34, page 644
- Earthing braid, see Cat. 34, page 644
- Assembly components, see Cat. 34, page 621

Technical details:
Available on the Internet
**Material:**
- Polyamide (PA 6.6).
- Fire protection corresponding to UL 94-V0

**Colour:**
- Chassis: RAL 7035

**Technical details:**
Available on the Internet

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**Rated current max. 16 – 32 A, with connection cables**

<table>
<thead>
<tr>
<th></th>
<th>Packs of</th>
<th>16</th>
<th>32</th>
<th>Cat. 34, page</th>
</tr>
</thead>
<tbody>
<tr>
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<td>690, 3–</td>
<td></td>
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<tr>
<td>Rated operating voltage V, ~</td>
<td></td>
<td>3-pole</td>
<td>3-pole</td>
<td></td>
</tr>
<tr>
<td>Number of poles</td>
<td></td>
<td>AWG 12</td>
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<tr>
<td>Connection cables, length mm</td>
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<td>165</td>
<td>165</td>
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<td>With support frame mm</td>
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<td>45 x 170</td>
<td>45 x 170</td>
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<td></td>
<td>Height mm</td>
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<td>Support rail version</td>
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<td>TS 45D-V</td>
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<tr>
<td>Height mm</td>
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<tr>
<td>For bar systems with centre-to-centre spacing mm</td>
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<td>60</td>
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<tr>
<td>For bar thickness mm</td>
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<tr>
<td><strong>Model No.</strong></td>
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**Accessories**

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<tbody>
<tr>
<td>Connection pin</td>
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</tr>
<tr>
<td>Insert strip</td>
<td>2 pc(s)</td>
<td>9340.290</td>
<td>9340.290</td>
<td>259</td>
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<tr>
<td>Support rails</td>
<td></td>
<td>from page</td>
<td>from page</td>
<td></td>
</tr>
<tr>
<td>OM supports</td>
<td></td>
<td>see page</td>
<td>see page</td>
<td>259</td>
</tr>
<tr>
<td>PinBlock</td>
<td>5 pc(s)</td>
<td>9342.800</td>
<td>9342.800</td>
<td>260</td>
</tr>
</tbody>
</table>
Cover systems

Form 2b

Contact hazard protection cover

**for TS enclosures with NH slimline fuse-switch disconnectors**

To cover outgoing sections with NH slimline fuse-switch disconnectors and Maxi-PLS/Flat-PLS busbar system in the rear enclosure section so that they are safe from finger contact (IP 2X).

**Material:**
- Sheet steel, 1.5 mm

**Surface finish:**
- Zinc-plated

**Supply includes:**
- 4 covers
- Assembly parts

<table>
<thead>
<tr>
<th>For enclosure width mm</th>
<th>Packs of</th>
<th>600</th>
<th>800</th>
<th>1000</th>
<th>1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free installation width when using Flat-PLS mm</td>
<td>300</td>
<td>500</td>
<td>700</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td>Free installation width when using Maxi-PLSmm</td>
<td>500</td>
<td>700</td>
<td>900</td>
<td>1100</td>
<td></td>
</tr>
</tbody>
</table>

**Model No.**
- 1 set(s) 9674.960 9674.980 9674.900 9674.920

**Accessories**
- Cover panel 2 pc(s) 9674.905 9674.905 9674.905 9674.905

1) With top-mounting busbar support 9649.160/9659.160

---

Cover panel

To cover free NH slimline fuse-switch disconnector slots.

**Material:**
- Sheet steel, 1.5 mm

**Surface finish:**
- Zinc-plated

**Supply includes:**
- 2 cover brackets
- Assembly parts

<table>
<thead>
<tr>
<th>For NH slimline fuse-switch disconnectors</th>
<th>Width of</th>
<th>Packs of</th>
<th>Model No.</th>
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</thead>
<tbody>
<tr>
<td>Sizes 00 to 3</td>
<td>50</td>
<td>2 pc(s)</td>
<td>9674.905</td>
</tr>
</tbody>
</table>

---

Technical details

Available on the Internet

Add value with our innovations – Enhance your productivity
CMC III smoke detector
Optical component monitors the room air for smoke particles.

Connection:
- 2 x RJ 45: CAN bus
Material:
- Plastic
Colour:
- White
Supply includes:
- Mounting bracket
- Assembly parts

CMC III leakage sensor
Monitors a given point on the floor of the data centre or enclosure for liquids. The external sensor probe allows free selection of the point to be monitored.

Connection:
- 2 x RJ 45: CAN bus
Material:
- Plastic
Colour:
- Front and sensor head: RAL 9005
- Enclosure: RAL 7035
Supply includes:
- Sensor with connection cable, 3 m
- Mounting bracket
- Assembly parts

CMC III leakage sensor, 15 m
Monitors a larger floor area for liquids using the 15 metre long detection cable. The sensor additionally indicates the section of cable where a leak has been detected.

Connection:
- 2 x RJ 45: CAN bus
Material:
- Plastic
Colour:
- Front and detector cable: RAL 9005
- Enclosure: RAL 7035
Supply includes:
- Detector cable, 15 m
- Mounting bracket
- Assembly parts

Also required:
- CMC III Processing Unit/Compact 7030.000/7030.010, see Catalogue 34, from page 450

Available from November 2014
CMC III

Accessories

**CMC III GSM unit**
For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is designed in SMS format. Covering 4 GSM frequencies (quad-band): 850 MHz, 900 MHz, 1800 MHz and 1900 MHz. A standard, commercially available SIM card must be provided by the customer.

<table>
<thead>
<tr>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc(s).</td>
<td>7030.570</td>
</tr>
</tbody>
</table>

**Material:**
- Plastic

**Colour:**
- Front: RAL 9005
- Enclosure: 7035

**Supply includes:**
- RJ 12 cable
- GSM aerial
- Assembly parts

---

**CMC III ISDN unit**
For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is designed in SMS format.

**Requirement for the ISDN connection:**
- DSS1 (Euro-ISDN) must also be available when connecting to the ISDN system
- Point-to-multi-point configuration

<table>
<thead>
<tr>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc(s).</td>
<td>7030.580</td>
</tr>
</tbody>
</table>

**Material:**
- Plastic

**Colour:**
- Front: RAL 9005
- Enclosure: 7035

**Supply includes:**
- RJ 12 cable
- Assembly parts

---

**Interference suppressor for fans for CMC III**
For connecting fans via the CMC III Power Unit 7030.050. Prevents excessive start-up currents. One interference suppressor is required for each fan.

<table>
<thead>
<tr>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc(s).</td>
<td>7030.051</td>
</tr>
</tbody>
</table>

**Material:**
- Plastic

**Colour:**
- RAL 9005

**Supply includes:**
- Assembly parts

---

**Cable clamp strap for CMC III**
For securing to the rear of the CMC III 482.6 mm (19”) mounting unit 7030.070. Enables tidy cable routing behind the built-in CMC III devices and attachment of the cables for strain relief purposes. Cables can easily be laid in a loop to allow the built-in CMC III devices to be removed from the mounting unit without the need for tools.

<table>
<thead>
<tr>
<th>Packs of</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc(s).</td>
<td>7030.087</td>
</tr>
</tbody>
</table>

**Material:**
- Sheet steel

**Surface finish:**
- Zinc plated, passivated

**Supply includes:**
- Assembly parts
Door control system DCS

Consisting of:
– Door control module
– Door kit

For automatic opening of TS IT rack doors.

Sample applications:
• Overtemperature in the closed TS IT rack
• Extinguisher gas should be able to enter the rack from the room

Activated via the Door Control Module (DCM) control unit. One DCM must activate one rack with 2 doors (front/rear door). We recommend the use of CMC III and access sensors.

Also required:
– Door control module DCM, see page 80
– Door kits, see page 80
– Power supply units, see Cat. 34, page 457
– Connection cables, see Cat. 34, page 457
– Mounting unit 1 U, see Cat. 34, page 458

Accessories:
– CMC III Processing Unit/Compact with connection, power supply and mounting accessories, see Catalogue 34, from page 450
– Door switch/comfort handle, see Cat. 34, page 460
– Coded lock/transponder reader, see Cat. 34, page 452
– Access sensor, see Cat. 34, from page 451

System diagram – Door control system:

- A maximum of 16 door control modules per Processing Unit
- A maximum of 4 door control modules may be connected per Processing Unit Compact

Note:
The following door kits may be connected:
– 2 door kits (magnetic systems with dampers) 7030.240/.241/.250 (required for all applications, Model No. depending on door version)
– 2 door kits (spindle motor) 7030.261 (for applications with underpressure in the rack, e.g. LCP, powerful server fan motors etc.)
– All the power packs used must be connected to the same power supply as the servers, e.g. extinguisher systems.

Activation in case of alarm:
– CMC III task
– DCM, integral temperature sensor
– DCM, digital input

Activation for user access:
– One door handle/comfort handle 7320.793/.794 per door, see Cat. 34, page 460
– Coded lock/transponder reader 7030.220/230, see Cat. 34, page 455

Min. 800 mm enclosure depth
Door control module
Control unit for automatic opening of TS IT rack doors. Designed for a rack with front and rear door. To fit CMC III system with CAN bus.

Material:
- Plastic

Colour:
- Front: RAL 9005
- Enclosure: 7035

Supply includes:
- Basic system
- 4 mounting feet
- Quick-start instructions

Also required:
- Door kits, see page 80
- Power supply units, see Cat. 34, page 457
- Connection cables, see Cat. 34, page 457
- Mounting unit 1 U, see Cat. 34, page 458


table
<table>
<thead>
<tr>
<th>Model No.</th>
<th>Packs of</th>
</tr>
</thead>
<tbody>
<tr>
<td>7030.500</td>
<td>1 pc(s).</td>
</tr>
</tbody>
</table>

- 1st rated voltage: 24 V (DC) door control module via CMC III CAN bus, redundant to 2nd rated voltage
- 2nd rated voltage: 24 V (DC) 7030.060 for door control module and magnet systems
- 3rd rated voltage: 24 V (DC) 7030.060 for spindle motors only (protected by a UPS)
- 1 x temperature sensor input NTC sensor (included with the supply)
- 3 x digital inputs Alarm/front door/rear door
- 1 x input for reader units Coded lock/transponder reader
- 2 x outputs for door kits Magnetic system with damper
- 2 x outputs for door kits extension Spindle motors
- 2 x CAN bus CMC III RJ 45 for CAN bus cable

Available from November 2014

Door kit
for TS IT (magnetic system with damper)
To open the door in an emergency situation. Connection and activation via door control module, for standard TS IT doors. The doors are kept closed by a magnetic system. If the power supply to the magnets is interrupted, the gas pressure damper system pushes the door open.

Technical specifications:
- Rated voltage: 24 V DC
- Rated current 7030.240/241: 390 mA
- Rated current 7030.250: 520 mA

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Also required:
- Door control module DCM, see page 80

<table>
<thead>
<tr>
<th>TS IT design</th>
<th>Packs of</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-piece aluminium glazed door</td>
<td>1 pc(s).</td>
</tr>
<tr>
<td>1-piece sheet steel door</td>
<td>1 pc(s).</td>
</tr>
<tr>
<td>2-piece door</td>
<td>1 pc(s).</td>
</tr>
</tbody>
</table>

Supply includes:
- Gas pressure damper
- Cable harness
- Magnetic system with damper
- Instructions
- Assembly parts

Also required:
- Door control module DCM, see page 80
- Door kits, see page 80
- Power pack (with UPS protection), see Cat. 34, page 457

Available from September 2014

Door kit extension
for TS IT, LCP (spindle motor)
To open the door in an emergency situation. For applications with underpressure in the rack, e.g., LCP, powerful server fan motors etc., this kit is required in addition to the magnetic lock. The motor pushes the door open until the underpressure is released. It is mounted on the roof.

Technical specifications:
- Rated current: 900 mA
- Push force: 1000 N
- Stroke length: max. 200 mm

Material:
- Sheet steel
- Aluminium
- Plastic

Also required:
- Door control module DCM, see page 80
- Door kits, see page 80
- Power packs (with UPS protection), see Cat. 34, page 457

<table>
<thead>
<tr>
<th>Packs of</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 pc(s).</td>
</tr>
</tbody>
</table>

Supply includes:
- 2 spindle motors
- 2 push frames
- Instructions
- Assembly parts

Also required:
- Door control module DCM, see page 80
- Door kits, see page 80
- Power pack (with UPS protection), see Cat. 34, page 457

Available from November 2014

Add value with our innovations – Enhance your productivity
RiZone Appliance Standard
capacity management
RiZone 3.5 – the DCIM solution from Rittal – supports the monitoring and planning of available capacity in the data centre, as well as monitoring of the physical infrastructure.

- Which rack is the server installed in?
- Which height units (U) are used by the server?
- How much power is the server currently using?
- What is the temperature generation inside the server enclosure/data centre?
- What power reserves are still available?

All these questions can be answered using RiZone and server racks, low-voltage power distributors, UPS systems and climate control systems equipped with Dynamic Rack Control (DRC). This guarantees fully comprehensive server documentation and ensures the requisite availability. To this end, servers are equipped with a unique RFID tag at the time of commissioning, which remains with the server for its entire lifecycle. Alternatively, the server-specific data (type, height units, weight, power etc.) may also be entered manually in RiZone to enable use of the capacity management feature.

**Note:**
- The capacity management function module is part of the RiZone Software and Hardware Appliance Version 3.5, and is therefore available to all RiZone users.

**Also required:**
- RiZone Hardware and Software Appliance, see Cat. 34, page 463

RiZone Appliance Standard
RiMatrix S offline project planning
The offline project planning function module has been extended with RiZone 3.5. Installations containing modules from the standardised RiMatrix S data centre can now be configured in advance as well. You can configure the RiZone project from your desk even if the RiMatrix S data centre is not yet installed. All active components and sensors may be positioned in the project and later substituted with the real sensors simply by dragging and dropping.

In addition to the offline sensors already available, RiZone 3.5 also offers the following offline devices:

- ZUCS fan unit
- ZUCS server room temperature
- ZUCS server in
- ZUCS server out
- ZUCS fan
- ZUCS cooling consumption

In order to make RiMatrix S configuration even easier, the required devices are modularly combined for RiMatrix S Single 6, Single 9, Double 6 and Double 9.

**Also required:**
- RiZone Hardware and Software Appliance, see Cat. 34, page 463
Fire alarm and extinguisher system DET-AC III/EFD III

Advantages:
- Early fire detection
- Automatic extinguishing
  - Innovative extinguisher gas NOVEC™ 1230
  - Eco-friendly
  - Uncritical for IT components, non-conductive
- 482.6 mm (19”) rack mount with just 1 U
- Testing by VdS (VdS Schadenverhütung GmbH tests and certifies individual components and entire systems for damage prevention at its own laboratories)
- CAN bus interface for direct connection to the CMC III monitoring system

Note:
- All three systems are designed solely for use in closed, non-accessible enclosure systems

DET-AC III master
The active extinguisher system for use in closed 482.6 mm (19”) server enclosures includes the smoke extraction system and the extinguisher unit in a 482.6 mm (19”) subrack with just 1 U. The smoke extraction system is identical to that used in the EFD III smoke extraction system. When a main alarm is activated, the extinguishing process will begin automatically. The NOVEC™ 1230 extinguisher medium is stored in the extinguisher tank in liquid form. For the extinguishing process, the tank is pressurised, causing the extinguisher medium to evaporate at the extinguisher nozzle and is distributed in the server enclosure. Alarms and malfunctions may be forwarded directly to the CMC III monitoring system via the CAN bus interface. Floating contacts allow alarms (pre-alarm and main alarm) and collective fault signals to be forwarded from the device to a superordinate point (monitoring or control system).

EFD III
The EFD III early fire detection system includes the smoke extraction system in a 482.6 mm (19”) subrack with just 1 U. An integral fan continuously extracts air from the area being protected via a system of pipes. The air drawn in passes two fire detectors. If smoke is detected, the highly sensitive detector will emit a pre-alarm, while the second detector will activate the main alarm. The fire detectors are permanently monitored for correct functioning by the evaluation and control electronics on the control card. Alarms and malfunctions may be forwarded to a superordinate point (monitoring or control system) via floating contacts. The integral CAN bus interface facilitates direct connection to the CMC III.

DET-AC III slave
This add-on unit to the DET-AC III Master includes an additional extinguisher unit. Combined use allows the extinguishing of up to five bayed enclosures. In addition to the DET-AC III unit, a DET-AC III slave unit is used for each additional bayed enclosure and supplies the extinguishing agent for that enclosure. Detection occurs via the DET-AC III master system, even when multiple enclosures are bayed together. If a main alarm is reported, the DET-AC III master will activate extinguishing in all systems simultaneously. The DET-AC III slave system can also be used in combination with the EFD III system.

Technical details:
Available on the Internet

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Fire alarm and extinguisher system DET-AC III Master</th>
<th>Early fire detection system EFD III</th>
<th>Additional unit DET-AC III Slave</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7338.121</td>
<td>7338.221</td>
<td>7338.321</td>
</tr>
<tr>
<td>Width mm</td>
<td>482.6 (19”) rack mount</td>
<td>482.6 (19”) rack mount</td>
<td>482.6 (19”) rack mount</td>
</tr>
<tr>
<td>Height mm</td>
<td>44 (1 U)</td>
<td>44 (1 U)</td>
<td>44 (1 U)</td>
</tr>
<tr>
<td>Depth mm</td>
<td>660</td>
<td>490</td>
<td>660</td>
</tr>
<tr>
<td>Weight, approx. kg</td>
<td>15.5</td>
<td>9.6</td>
<td>12.5</td>
</tr>
</tbody>
</table>
## Fire alarm and extinguisher system DET-AC III/EFD III

<table>
<thead>
<tr>
<th>Model No.</th>
<th>7338.121</th>
<th>7338.221</th>
<th>7338.321</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material of enclosure</td>
<td>Sheet steel</td>
<td>Sheet steel</td>
<td>Sheet steel</td>
</tr>
<tr>
<td>Colour of enclosure</td>
<td>RAL 7035</td>
<td>RAL 7035</td>
<td>RAL 7035</td>
</tr>
<tr>
<td>Colour of front panel</td>
<td>RAL 9005</td>
<td>RAL 9005</td>
<td>RAL 9005</td>
</tr>
<tr>
<td>Protection category</td>
<td>IP 30</td>
<td>IP 30</td>
<td>IP 30</td>
</tr>
<tr>
<td><strong>Rated operating voltage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated voltage V, ~, Hz</td>
<td>100 – 240 (AC), 1~, 50/60</td>
<td>100 – 240 (AC), 1~, 50/60</td>
<td>24 (DC)</td>
</tr>
<tr>
<td>Emergency power supply h</td>
<td>approx. 4</td>
<td>approx. 4</td>
<td>approx. 4</td>
</tr>
<tr>
<td>Max. permissible useful current</td>
<td>1.0 A at 24 Volt&lt;sup&gt;1&lt;/sup&gt;</td>
<td>1.0 A at 24 Volt&lt;sup&gt;1&lt;/sup&gt;</td>
<td>–</td>
</tr>
<tr>
<td>Max. permissible charging current</td>
<td>350 mA at 24 Volt</td>
<td>350 mA at 24 Volt</td>
<td>–</td>
</tr>
<tr>
<td>Airflow monitoring</td>
<td>approx. ±10% of total airflow</td>
<td>approx. ±10% of total airflow</td>
<td>–</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+10°C…+40°C (operation)</td>
<td>+10°C…+40°C (operation)</td>
<td>+10°C…+40°C (operation)</td>
</tr>
<tr>
<td>Humidity</td>
<td>up to 96% humidity, non-condensing</td>
<td>up to 96% humidity, non-condensing</td>
<td>up to 96% humidity, non-condensing</td>
</tr>
<tr>
<td><strong>Connections</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection terminal for relay output (pre-alarm, fire alarm, extinguishing)</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Connection terminal for relay output (collective fault)</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Jack (RU 12) for connection of door contact switch</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Connection terminal for door contact switch</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>3 x jacks (RU 12) for forwarding (collective fault, pre-alarm, main alarm)</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>2 x CAN connections for networking</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Connection of external alarm device</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Connection of external fill level monitoring and activation of external tank, max. 500 mA</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Connector for manual call point</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>Power supply (UEB), max. 500 mA</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>USB interface</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td>CAN bus interface to CMC III</td>
<td>◾</td>
<td>◾</td>
<td>◾</td>
</tr>
<tr>
<td><strong>Front panel</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display with status messages displayed in plain text</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>1 green LED (operational)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>1 yellow LED (deactivation)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>1 red LED (extinguisher system triggered)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>1 red LED (extinguisher system activated)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>1 yellow LED (blockage)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>1 yellow LED (malfunction)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td><strong>Extraction pipe (must be ordered separately)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraction holes</td>
<td>Min. 4 extraction holes, Ø 3 mm</td>
<td>Min. 4 extraction holes, Ø 3 mm</td>
<td>–</td>
</tr>
<tr>
<td>Extraction pipe (external diameter: 22 mm, internal diameter: 18 mm)</td>
<td>Adhesive-free connection system, black</td>
<td>Adhesive-free connection system, black</td>
<td>–</td>
</tr>
<tr>
<td><strong>Sensors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optical smoke detector (sensitivity: approx. 3.5%/m light obscuration)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>Optical smoke detector HS (sensitivity: approx. 0.25%/m light obscuration)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td><strong>Tank</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>Aluminium</td>
<td>–</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Empty volume</td>
<td>approx. 2.0 litres</td>
<td>–</td>
<td>approx. 2.0 litres</td>
</tr>
<tr>
<td>Contents</td>
<td>approx. 1.8 litres NOVEC™ 1230</td>
<td>–</td>
<td>approx. 1.8 litres NOVEC™ 1230</td>
</tr>
<tr>
<td>Extinguisher is emitted under pressurisation via propellant cartridge</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>Integral electrical activation unit</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td>Integral extinguisher loss/fill level monitoring (indication of &gt; 15% loss)</td>
<td>◾</td>
<td>◾</td>
<td>–</td>
</tr>
<tr>
<td><strong>Also required</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipe kit</td>
<td>7338.130</td>
<td>7338.130</td>
<td>7338.130</td>
</tr>
<tr>
<td>Access sensors</td>
<td>7320.530</td>
<td>–</td>
<td>7320.530</td>
</tr>
<tr>
<td>CAN bus connection cable RJ 45, 1 m&lt;sup&gt;2&lt;/sup&gt;</td>
<td>7030.091</td>
<td>7030.091</td>
<td>455</td>
</tr>
<tr>
<td>Depth-variable slide rails</td>
<td>5501.480</td>
<td>5501.480</td>
<td>5501.480</td>
</tr>
</tbody>
</table>

<sup>1</sup> The sum total of all connected units must not exceed the admissible useful current of 1.0 A

<sup>2</sup> Depending on the distance between the CMC III and DET AC III/EFD II, a different length should be selected for the CAN bus connection cable
Add value with our innovations – Enhance your productivity.