

Rittal – The System.

Faster – better – everywhere.

An appetite for perfection?

Rittal solutions for the food and beverage
industry



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES



FRIEDHELM LOH GROUP



One for all. Especially for you! “Rittal – The System.”

With tailor-made products, modern IT infrastructures and comprehensive service, Rittal offers specific solutions for every industry – for improved efficiency, greater added value and more security.

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Today's food producers must meet stringent standards in terms of hygiene, efficiency and digitalisation if they are to remain competitive. Industry professionals must seek answers to a series of questions. Which enclosures can I use in which hygiene zone? How do I reduce the carbon emissions from my production? How can I ensure reliable, continuous data traceability? The industry-specific solutions from Rittal provide an ideal platform. This brochure showcases our portfolio of solutions for the food and beverage industry.

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Rittal – The System.

At home in every industry



Rittal is one of the world's leading system providers of enclosures, power distribution, climate control, IT infrastructure and software & services. Rittal has a global presence, employing around 10,000 people across 58 subsidiaries.

For more than 50 years, Rittal has been setting trends with perfectly coordinated enclosure system solutions. Its broad portfolio also includes infrastructure solutions for modular, energy-efficient data centres using tried-and-trusted concepts for the physical protection of data and systems. Leading software providers Eplan and Cideon enhance the value chain with customised engineering solutions, and the range is rounded out by automation solutions for switchgear manufacturing from Rittal Automation Systems.

System solutions from Rittal are used throughout almost every industry, especially those with exacting requirements in terms of materials, energy efficiency and powerful IT needs.

We devise customised solutions to meet the specific demands of the food and luxury goods industry.

Every industry has its own specific needs. Knowing just what these are is the only way to offer a system that fits. A solution that combines both universal and specific aspects and which is both cost-efficient and customised. It not only does justice to one industry, but also meets a very special requirement – **Yours.**

Custom-made solutions



Aviation industry

Safe solutions for the aviation industry



Automotive industry

Standardised system solutions that ensure operational reliability and efficiency



Process industry

Integrating innovative technologies into demanding processes



Energy sector

Making modern energy supply efficient and flexible



Infrastructure / Telecommunications

Optimising bandwidth and availability



Railway technology

Setting the points for the future with Rittal



Electrical engineering and automation

Automating panel building and switchgear manufacturing, increasing productivity



Mechanical engineering

Controlling machines safely and efficiently



Maritime industry

Flexible on land and on the high seas



Food and beverage industry

Producing food hygienically and safely

Hygiene-compliant production in the food and beverage industry is regulated by law to ensure freshness and tolerance.



Discerning on every level. Food as a quality product

Exacting production conditions, the growing importance of food safety and digitalisation all pose major challenges for the food and beverage industry.

Clean work: Hygiene

In 2018, there were 186 food items recalled from circulation in Germany alone.¹ Meticulous hygiene is an absolute must, and this relies on optimum cooling/climate control to prevent the formation of pathogens, particularly in the case of fresh meat and poultry, dairy products, fruit and vegetables. Exacting standards and guidelines are rightfully and rigorously enforced by a wide range of regulations. Open processes in particular need systems and components to satisfy the most stringent hygiene requirements.

Sustainable manufacturing: Energy efficiency

Blue e+ cooling units could reduce carbon emissions in Europe by 3 million tonnes.² Alongside the quality of the product, resource consumption and pricing are the other main competitive factors in the food sector. High energy consumption levels are therefore a key cost driver. Moreover, climate change is creating a demand for solutions with a minimal carbon footprint and low F-gas emissions. These areas offer untapped potential for savings and sustainability.

Transparent information: Digitalisation

84 percent of food companies view digitalisation as an opportunity.³ In these times of well-informed customers, financial success is dictated by fairly traded quality, transparent supply chains and new business models. What is more, highly automated operations are reliant on consistent equipment availability and maintenance-friendly machinery, because systems can be adversely affected by ambient conditions such as heat, dust and damp. Powerful IT systems, the Industrial Internet of Things (IIoT), digital value chains and predictive maintenance offer new prospects for the future in this regard.



Blue e+ cooling units
**could cut carbon
emissions in Europe** by
**3 million
tonnes.**

¹ https://www.proplanta.de/agrar-nachrichten/verbraucher/lebensmittelrueck-rufe-in-deutschland-nehmen-deutlich-zu_article1554512508.html

² https://www.rittal.com/de_de/blue_e/new/public/en

³ <https://www.lebensmittelverarbeitung-online.de/branchennews/bitkom-und-bve-umfrage-digitalisierung-bringt-transparenz-in-die-lebensmittelproduktion>

Trust is good ...

Directives, standards and legislation

Meticulous hygiene in the food and beverage industry is not voluntary, but a legal requirement, as set out in numerous national, EU and international regulations.



European standards and directives

- EN 1672-2-2009-07 Food machinery/General design principles/ Part 2: Hygiene requirements
- EN ISO 14159:2008-07 Safety of machinery – Hygiene requirements for the design of machinery
- EN 16001:2009-06 Energy management to improve energy efficiency
- Machinery directive 2006/42/EC binding
- Document 13 EHEDG guideline on the hygienic design of apparatus for open processes
- EU Regulation No. 517/2014 on Fluorinated Greenhouse Gases
- EU Hygiene Regulation (EC) No. 852/2004

EU regulations

- 852/2004 on the hygiene of foodstuffs
- 853/2004 with specific hygiene rules for food of animal origin
- 854/2004 with specific rules for the organisation of official controls on products of animal origin intended for human consumption
- 1935/2004 on materials and articles intended to come into contact with food

In the interests of consumer safety, all regulations are designed to guarantee simple and thorough cleaning of production facilities. Food producers are inspected by recognised organisations to ensure that they meet these high quality standards.

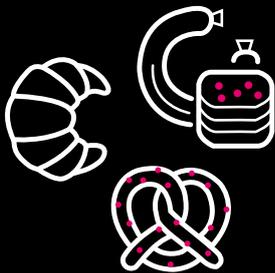


Rittal Hygienic Design has been specifically designed to facilitate easier cleaning of the components, machinery and production equipment. Detailed requirements governing the material, design and use of equipment ensures that all statutory regulations are observed.

The subtle differences in the food industry

The subtle differences in the food industry

The equipment design, material type and its use apply in varying degrees and with variable weighting, depending on the product being manufactured. The multifeed, dairy and beverage segments rely on company-specific solutions and measures to ensure a safe process and efficient production.



Foods

Food production must be exceptionally hygienic, efficient and fast to give discerning consumers the freshness, durability and optimum taste they demand. Daily cleaning cycles in cold environments guarantee clean production and compliance with hygiene standards, which are audited with random but regular inspections. Hygienic, reliable components are essential for ensuring a smooth production process.

Dairy products

Dairy products are a sensitive commodity, and a high level of automation is crucial. The proportion of closed and open processes varies according to the individual product. As the ambient conditions tend to be warm, there is an increased demand for powerful cooling units and bespoke climate control systems. Significant productivity gains can be achieved here with innovative IIoT solutions.



Beverages

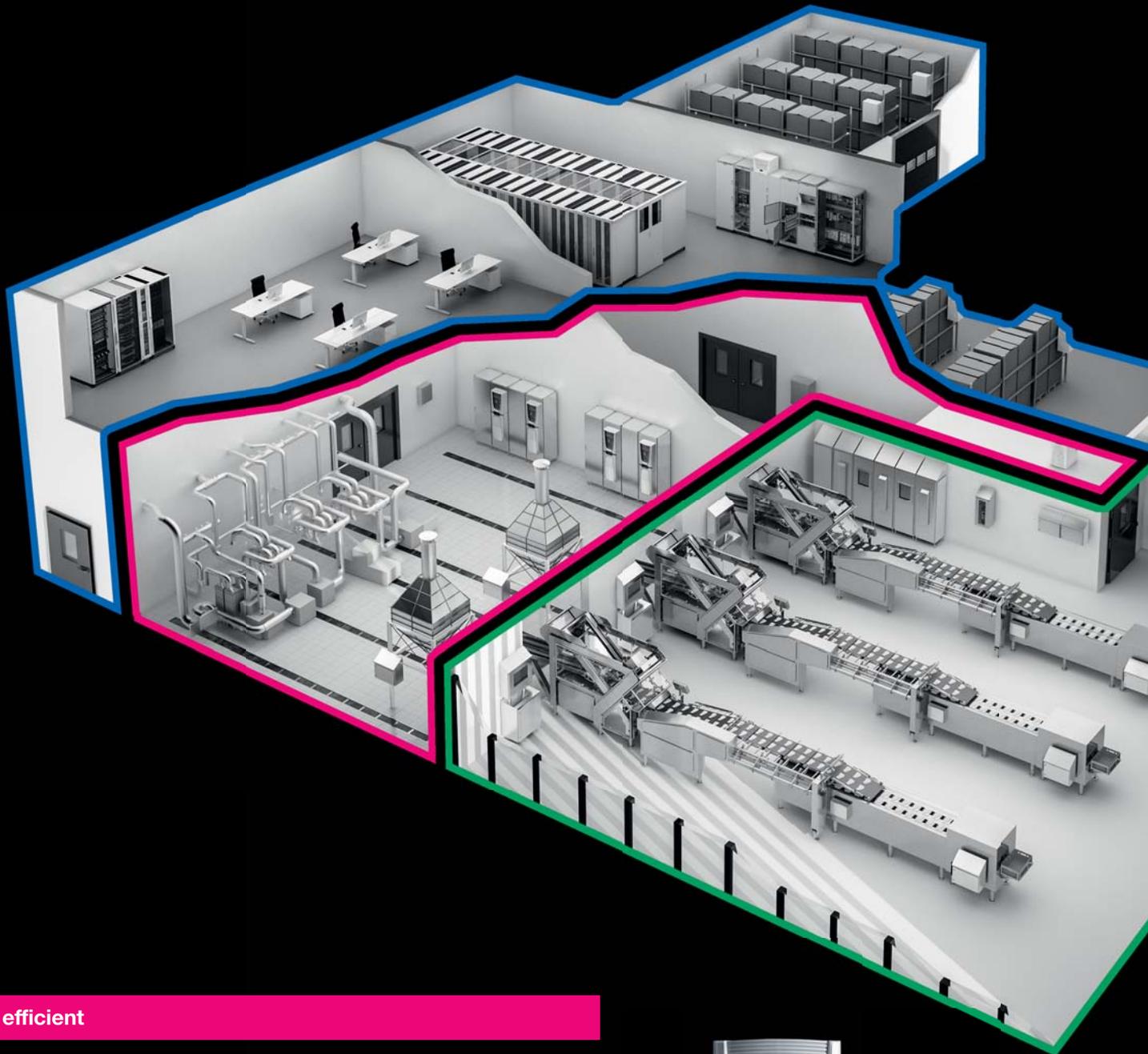
Efficiency and continuous availability of machines is a top priority for the beverage industry. As the ambient conditions tend to be warm, this industry segment likewise needs energy-saving climate control solutions and carbon-free production where possible. Such operations must prioritise investments in measures that maximise digitalisation potential, minimise downtime or contribute to energy efficiency.





With hygiene-optimised enclosures, energy-efficient Blue e+ units, IoT interfaces and edge data centres, Rittal has the best solutions to meet the specific requirements of each segment.

Clean, sustainable, efficient: Our three areas of expertise



More efficient

Rittal's innovative low-carbon cooling technology and efficient power distribution solutions are perfectly protected by high-quality stainless steel enclosures specifically developed for distinct industry sectors.

Rittal's focus products

- Stainless steel enclosure solutions
- Blue e+ climate control units
- RiLine Compact power distribution



More data

Digitalisation has really taken off in the food industry. Rittal supports the development of IIoT and Industry 4.0 concepts with pioneering IT infrastructures and smart services.

Rittal's focus products

- Edge data centre solutions
- Rittal RiMatrix data centres



Cleaner

Rittal Hygienic Design sets the standard for hygienic production, high productivity and food safety.

Rittal's focus products

- Hygienic Design enclosures
- Hygienic Design climate control solutions



Your gains: Added value and benefits

Rittal ensures fast planning, assembly/dismantling and commissioning. We translate trends into innovative products and are always close at hand. Faster – better – everywhere. We're here to help you.



Enhanced efficiency in the food industry

Rittal's industry specific solutions provide tangible benefits and added value for its end clients. Food and beverage companies benefit in particular from significant efficiency gains in production.

Specifically, our customers enjoy the following benefits:

- Greater reliability with certification and audits
- Faster, more effective cleaning for greater productivity
- Energy-saving climate control for carbon-neutral production
- Servicing and maintenance to minimise machine downtime
- Global availability and short delivery times for standard products and accessories
- Quality leadership on the market
- Simple supply of spare parts

Integrated solutions for machinery and plant manufacturing

For machine manufacturers that supply the food industry, Rittal offers attractive opportunities to underpin their market position as leading innovators:

- The right product available off the shelf for every hygiene zone
- Smart software solutions for efficient, integrated engineering with Rittal configurators and EPLAN Solutions
- Support for smart engineering scenarios with intelligent products such as Blue e+, IoT, CMC III and smart monitoring

Innovative solutions for planners

Rittal provides system designers and planners with access to tried-and-tested solutions and systems that can be tailored to a specific project planning task, to enhance their expertise with innovative infrastructures:

- Minimal liability risk
- Based around current standards – State-of-the-art building planning technology
- Our high quality and up-to-date industry knowledge makes us a valued contact for food producers



84%

of food producers
questioned
view **digitalisation**
as an opportunity.⁴



Food and beverage sector: Superior, efficient and intelligent Rittal solutions.

⁴ <https://www.lebensmittelverarbeitung-online.de/branchennews/bitkom-und-bve-umfrage-digitalisierung-bringt-transparenz-in-die-lebensmittelproduktion>

Stringent hygiene standards: OSI Food Solutions

Total hygiene is being championed by OSI Food Solutions, using state-of-the-art technology. At one of the world's most cutting-edge hamburger production lines, OSI produces around 5.5 million patties every day, most of which are destined for McDonald's in Germany. OSI is constantly on the lookout for innovative solutions to optimise the hygiene of its production. For many years, Hygienic Design (HD) enclosures have been pivotal to OSI's operations. At every stage in the production chain, the sensitive control technology is reliably protected from water and detergent ingress by compact Rittal HD enclosures and terminal boxes, providing effective protection from micro-organisms and hazardous cross-contamination.

Specific products for the food industry

Since the launch of the Rittal Hygienic Design series in 2007, these enclosures have featured extensively in OSI's hygiene-compliant production plants. They have been carefully designed to cover every conceivable requirement in the food sector. The HD enclosures designed with hygiene in mind are particularly ideal for use in open processes, i.e. areas that process unpackaged, unsealed sensitive foodstuffs such as fresh meat, fish and dairy products.



When we first saw HD compact enclosures at the 2007 Hanover Trade Fair, our curiosity was aroused, inspiring us to conduct some trials.

Thomas Schnitzler,
Head of Technology at OSI

Everything is hygiene-optimised

The blue external silicone seal is the HD trademark. It provides a slot-free seal and protects the electronics inside the enclosure from damp and moisture. The seal is made from a single piece and can be replaced in next to no time. The modular HD range is completed by a selection of hygiene-optimised special accessories. The options extend from a lock system with rounded surfaces to special levelling feet and cable glands with inward-facing threads.

Hygienic Design now included in specifications

“When we first saw HD compact enclosures at the 2007 Hanover Trade Fair, our curiosity was aroused, inspiring us to conduct some trials,” recalls OSI Head of Technology Thomas Schnitzler. Once installed at the heart of the processing operation, the HD enclosures proved to be leak-tight and easy to clean, and before long they found their way into the OSI specifications. “Whenever we are planning new machinery and plant, compact enclosures or terminal boxes from the Hygienic Design system are automatically included in the specs,” adds Schnitzler.



Electricity consumption slashed by 72 percent: Nestlé PTC

When you enter the heart of Nestlé's coffee research lab in the Swiss town of Orbe, it's like being invited into a maze. The production hall at the Nestlé Production Technology Center (PTC) houses countless cables, machines and control panels.

One field of development is the fine-tuning and improvement of Nespresso capsules. For decades, these halls have also been used to refine the freeze-drying process for roasted coffee.

Thanks to a slew of successful product innovations, the Nestlé research centre is now the Group's flagship technology centre for the use of new process technologies. The PTC uses the combined expertise of countless partners, and operations staff agreed to undertake a trial comparing the energy efficiency gains achievable with Rittal Blue e+ versus a standard cooling unit.

We are always motivated to gain genuine innovations and establish a foothold in the market.

Philippe Demarque,
Project Leader at Nestlé PTC Orbe



The food industry requires both process heat and continuous cooling, with maximum energy efficiency.

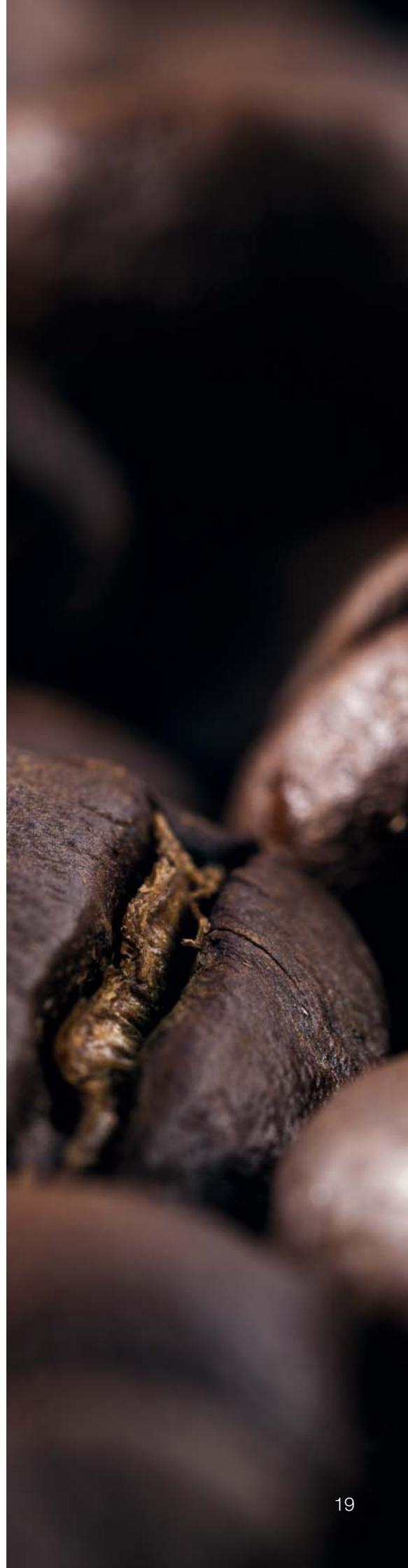
Focus on saving cooling energy

The food industry requires both process heat and continuous cooling, with maximum energy efficiency. Alongside the cold storage and freezing of foodstuffs, the cooling of critical electrical equipment also uses a lot of energy. Continuous heat dissipation is needed to guarantee constant temperatures inside the enclosure.

Rittal approached Nestlé PTC with the suggestion of pitting a conventional Blue e cooling unit against one of the latest generation Blue e+ units. Both units were mounted on identical Rittal enclosures already in use at the customer's factory. For the duration of the test, Rittal not only supplied the new climate control device but also provided measurement records and measuring instruments. It soon became clear that the Rittal Blue e+ option massively improves energy efficiency. Based on the results, electricity consumption during the test phase is expected to be around 72 percent lower with the Blue e+ unit than with the older Blue e standard unit.

Active and passive cooling

Enclosure cooling has taken a quantum leap forwards with the latest generation of Blue e+ wall-mounted cooling units. Rittal has succeeded in incorporating two heat transmission technologies into one device. Firstly, the speed-controlled compressor ensures optimum cooling output. Secondly, the refrigerant fills the volume of the heat pipe in both its liquid and vapour state. At a certain point in the pipe (in the evaporator coil), heat is transferred from the interior of the enclosure to the liquid, which then evaporates. This creates a pressure difference in the interior of the pipe, so that the vapour produced rises to the top near the condenser. The latent heat previously absorbed is emitted to the ambient air and the refrigerant changes its aggregate state from vapour back to liquid. Thanks to the power of gravity, the liquid refrigerant flows back into the evaporator coil and the cycle begins again. However, this principle can only work if the temperature outside of the enclosure is lower than the interior temperature. The heat pipe supports free cooling without external interference.



Manner relies on accurate documentation from Rittal

The cost and energy savings were the main factor in opting for the cold aisle solution, another point in Rittal's favour.

Richard Freitag,
IT and network operation, Manner

A fine aroma of ground cocoa beans pervades the air in Vienna. Manner has been producing its popular wafers in the Austrian capital for more than 100 years. This traditional company is currently investing heavily in a new production site, including a revamped headquarters with a brand new data centre, for which Rittal supplied the IT infrastructure. All areas of the food and beverage industry are required to keep detailed production records allowing product traceability and ingredient listing. A reliable IT system is therefore crucial.

Joint planning

Rittal's task was to equip the data centre with IT racks and energy-efficient climate control for reliable server operation, while also ensuring temperature, humidity and leak monitoring with a connected alarm and a redundant power supply. Manner's entire IT team got involved in planning the data centre.

Focus on energy efficiency

The Manner servers were accommodated in 14 Rittal TS IT racks, arranged in two rows facing one another to form the cold aisle. The aisle housing prevents cold and warm air from mixing, as this would adversely affect the energy footprint. Door and roof components separate hot and cold air in the data centre. By preventing the air flows from mixing, the efficiency of the cooling system is increased, which in turn improves energy consumption and helps to conserve the power reserves of the climate control technology.

Reliable maintenance included

Manner also operates a monitoring solution from Rittal. The Computer Multi Control III (CMC III) system uses sensors in the racks to monitor temperature and humidity, while any leaks trigger an alarm. A central fault signal unit notifies the technical support service in the event of malfunctions. The cooperation between Rittal and Manner extends beyond the commissioning of the system: with a customised maintenance contract rounding off the service package.



The Manner servers are accommodated in 14 Rittal TS IT racks, which are arranged in two rows facing one another to form the cold aisle.

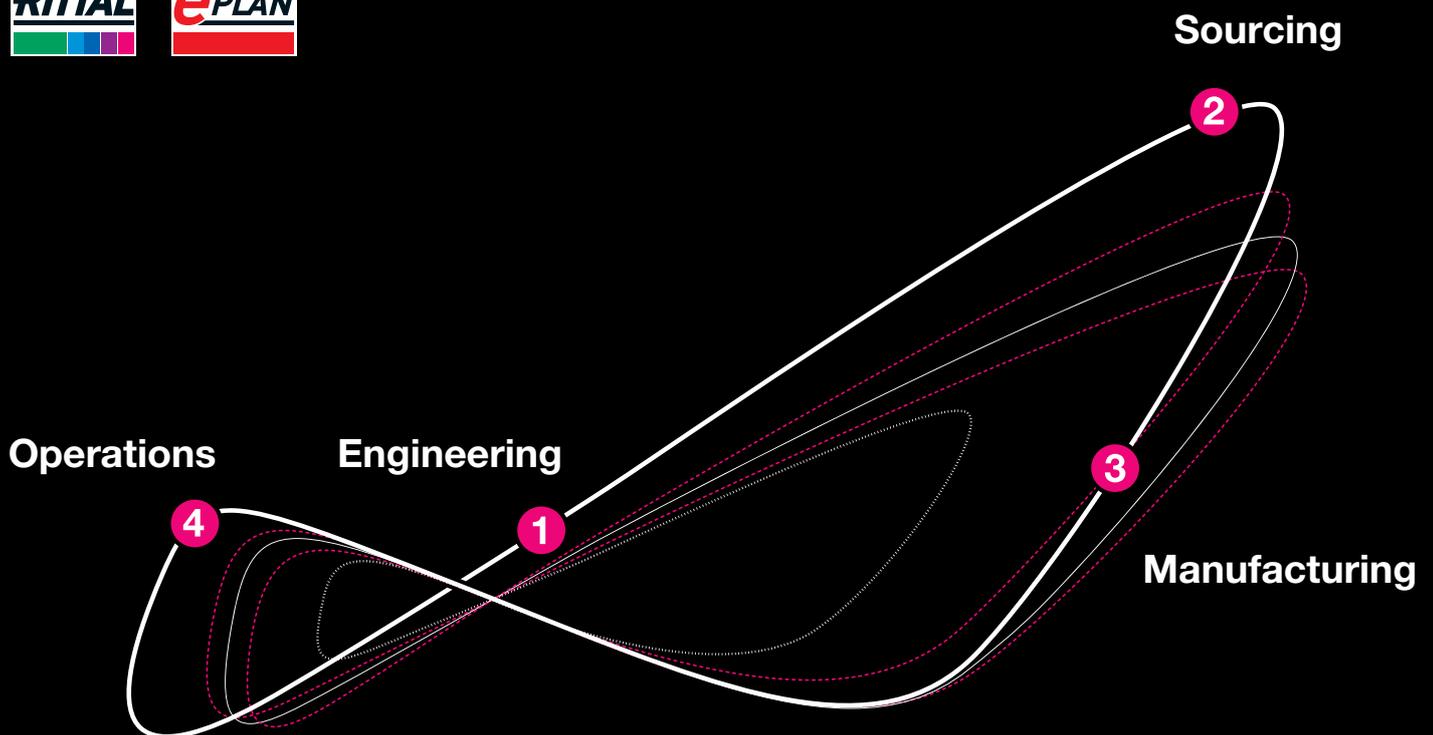
Powerful partners for the food industry

Digitalisation and integration. Clear efficiency gains

With incredibly tight food production cycles, the industry is always under huge time and cost pressure. Apart from delivering a delicious product, competitiveness relies on an efficient process and high plant availability. From the original specification, planning and design, to ordering, production and delivery, through to the after-sales service, food producers should collaborate closely with their machine suppliers and switchgear manufacturers, and consider the entire value creation chain. This will help them to boost their efficiency and gain market advantages.

Save time on system
expansions, updates or
retrofits and at the same time
increase your production.





Engineering

Boost your efficiency at the engineering stage with:

- Dedicated products for the specific hygiene zone
- Simple, fast pre-planning tools
- Avoid supplier interface problems with uniform planning tools

Sourcing

Boost your efficiency in the purchasing process with:

- Greater transparency during the product development process
- Automatic generation of parts lists
- Preparation of data for import into the ERP system

Production

This is how you boost your productivity in production:

- Accelerated switchgear assembly
- Fast exchange and handling of information between the end client, machine manufacturer and switchgear manufacturer
- Shorter delivery times with an integral value chain

Operations

Efficient operation is ensured thanks to:

- Access to data and parts lists via cloud solutions
- High product availability with spare parts available off the shelf
- Plant maintenance and repairs, complete end to end operational traceability

95%

of companies have been able to **increase** their **productivity** and **improve products and services** through digitisation.⁵

⁵ According to the Digital Value 2018 survey of 200 decision-makers from a variety of sectors in Germany, Austria and Switzerland.

EPLAN Solutions – Your Gateway to greater efficiency

You will be able to ensure a longer term competitive edge by digitalising your processes and standardising your data. We can support you with open systems and professional advice to safeguard your efficient engineering for the future.

Eplan helps you to develop a cross-disciplinary approach to your engineering. The EPLAN platform provides the basis for this, by linking our software solutions together. For you, this translates into significant efficiency gains when working on your EPLAN project, because your digital data flows seamlessly from project to project, becoming further enhanced with every process step. EPLAN ePULSE additionally provides access to an innovative cloud system, genuinely adding value to multi-location projects, for example. The EPLAN platform and EPLAN ePULSE combine to create EPLAN Solutions, your key to cutting-edge advanced engineering.

Bernd Schewior,
Senior Vice President, Professional Services Eplan



EPLAN platform

The EPLAN platform combines software solutions for every engineering discipline, from pre-planning, to project management, through to the construction of switchgear and cable harnesses. It comprises:

- **Automated Engineering:** EPLAN Engineering Configuration (EEC) provides you with a versatile tool for the design and use of configuration interfaces. EPLAN Cogineer provides you with the basis for automated generation of wiring schematics.
- **EPLAN Preplanning** helps you record engineering data, even at the pre-planning stage.
- **EPLAN Fluid** is your engineering tool, specifically designed for the project management and automated documentation of circuits for fluid engineering systems.
- **EPLAN Electric P8** helps you project-plan your electrical design for machinery and equipment in an engineering solution at the heart of the EPLAN platform.
- With **EPLAN Pro Panel** you devise and design control cabinets, switchgear and power distribution systems for energy supply in 3D.
- Use **EPLAN Harness proD** for efficient design and documentation of cables and cable harnesses in 3D and 2D.

EPLAN platform



Rittal Smart Service: maximum availability and top efficiency



Rittal Service
is **on call**
for its customers
24/7.

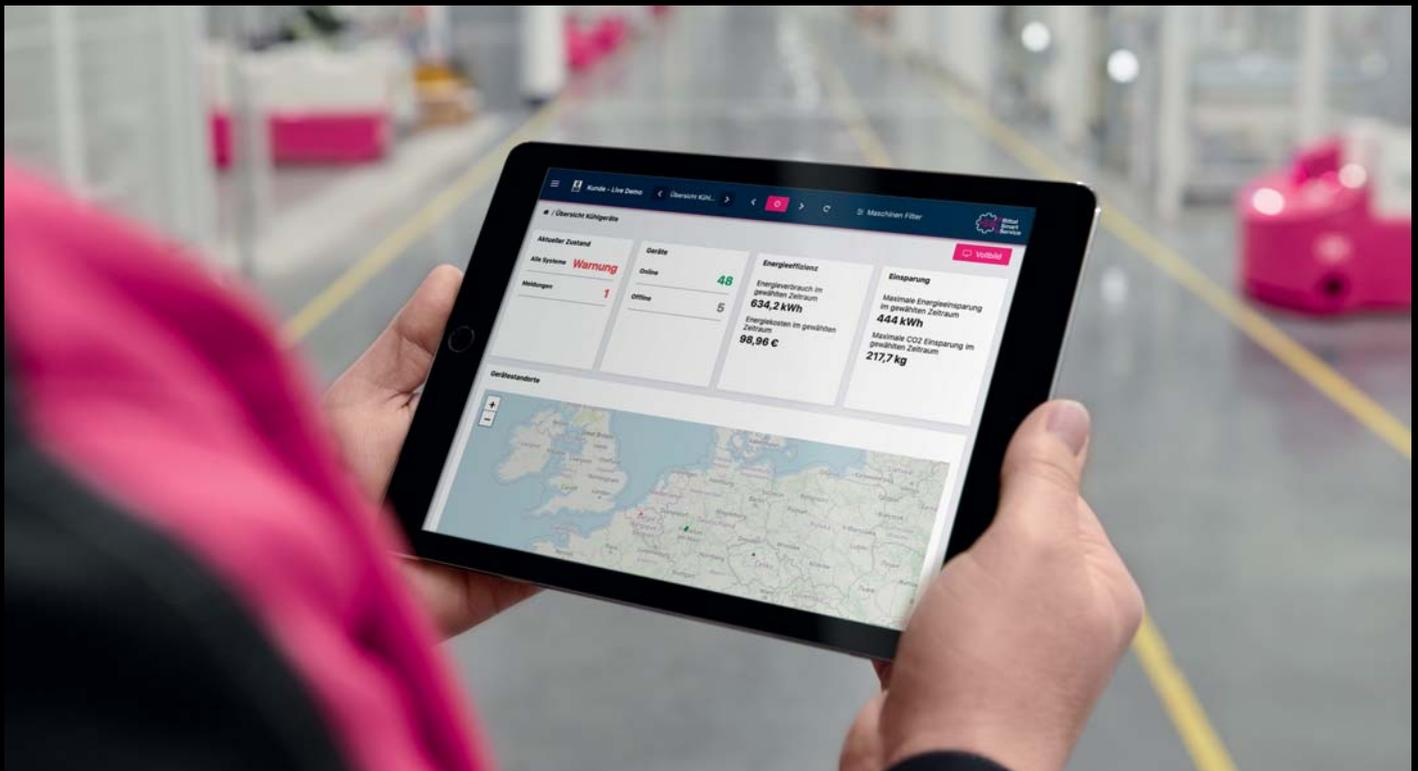
Increasing system availability and optimising service processes

Rittal Smart Service monitors and presents graphically the operating behaviour of Blue e+ cooling devices. By transmitting data in real time, it ensures that maintenance requirements are determined and any anomalies are detected early on. The automated processing of device data permits fast and efficient troubleshooting.

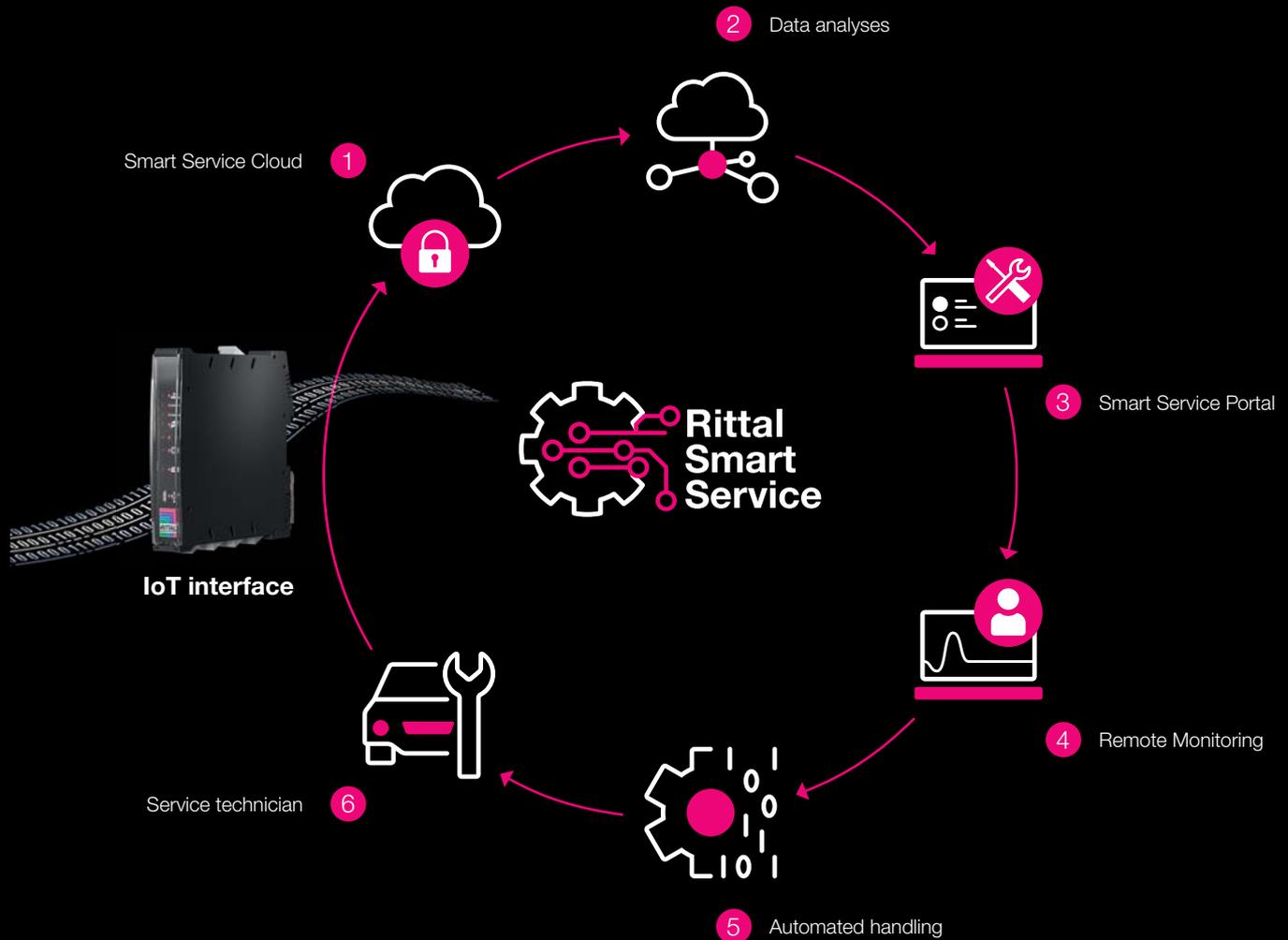
In the event of a malfunction, you receive situation-specific recommendations and energy efficiency analyses via the Rittal Smart Service portal. You also benefit from remote diagnosis and advice from the Rittal service experts.

The availability and analysis of the data forms the basis for predictive maintenance of the Rittal components. The forecast of the remaining service life of components underpins the predictive nature of essential maintenance, so that maintenance can be planned and carried out cost-efficiently as and when needed.

Professionally conducted service work ensures that the machines and technical systems function properly.



Rittal Smart Service



Your advantages

- Improved control and management of maintenance
- Visual presentation of data via the Web portal (condition monitoring)
- Access to operating and temperature characteristics
- Overview of energy consumption and efficiency analyses
- Situation-based recommendations for action underpinned by manufacturer's industry knowledge and experience

Your benefits

- Maximised system availability
- Increased service efficiency through on-demand maintenance
- Fast problem analysis and troubleshooting with remote diagnosis

Enclosures



-
- Hygienic Design
 - Switch housings
 - Small enclosures KX
 - Compact enclosures AX
 - Bayed enclosure system VX25
 - Support arm systems
 - Free-standing enclosure system VX SE
 - Command panels
 - Accessories
-



HD accessories Page 36 System accessories Page 65 Terminal boxes KX, stainless steel Page 44 Switch housings Page 43

Design:

- Enclosure angled forwards by 3°

Material:

- Enclosure and cover: Stainless steel 1.4301 (AISI 304) 1.5 mm
- Mounting bracket: Sheet steel, zinc-plated, passivated, 2.0 mm
- Screw plug: Stainless steel
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:

- Enclosure and cover: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

- IP 66
- IP X9

Protection category NEMA:

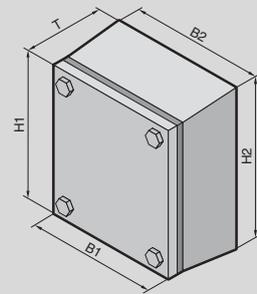
- NEMA 13
- NEMA 3R
- NEMA 4X

Supply includes:

- Enclosure of all-round solid construction
- Cover
- Mounting bracket (pre-assembled)
- Seal and screw plug (supplied loose)

Approvals:

- UL
- cUL



HD terminal box

	Packs of	150	150	200	300	400	400	Page
Width (front) (B1) mm		150	150	200	300	400	400	
Width (rear) (B2) mm		172	177	227	327	427	427	
Height front (H1) mm		150	150	200	200	200	300	
Height rear (H2) mm		172	177	227	227	227	327	
Depth (T) mm		80	120	120	120	120	120	
Model No.	1 pc(s).	1670.600	1671.600	1672.600	1674.600	1675.600	1676.600	
Weight kg		1.7	2.2	3.0	4.0	5.0	5.9	

Accessories

Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	39
Support rail TS 35/7.5	10 pc(s).	2314.000	2314.000	2315.000	2316.000	2317.000	2317.000	
Cable gland HD		see page	41					
Mounting plate	1 pc(s).	1560.800	1560.800	1562.800	1563.800	1564.800	1568.800	

Hygienic Design



HD accessories Page 36 System accessories Page 65 AX, stainless steel Page 48

Design:

- Roof angled forwards by 30°

Material:

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Mounting plate: Sheet steel
- Lock insert HD: Stainless steel 1.4404 (AISI 316L)
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:

- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Mounting plate: Zinc-plated
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

- IP 66
- IP X9

Protection category NEMA:

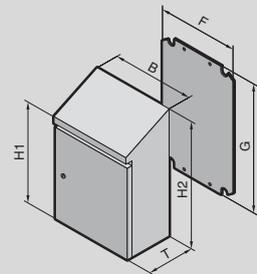
- NEMA 13
- NEMA 4X

Supply includes:

- Enclosure of all-round solid construction
- Door with inserted seal
- Door hinged on the right, may be swapped to the left
- Mounting plate

Approvals:

- UL
- cUL



Compact enclosure HD, single-door

	Packs of	220	390	390	510	610	Page
Width (B) mm							
Height front (H1) mm		350	430	650	550	430	
Height rear (H2) mm		437	549	769	669	601	
Depth (T) mm		155	210	210	210	300	
Mounting plate width (F) mm		162	330	330	450	550	
Mounting plate height (G) mm		275	355	575	475	355	
Model No.	1 pc(s).	1302.600	1306.600	1308.600	1307.600	1320.600	
Weight kg		6.6	14.7	17.9	19.7	21.7	

Accessories

Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	39
Cable gland HD		see page	41				
Rail for interior installation	4 pc(s).	-	-	5001.050	-	-	40
T handle HD	1 pc(s).	4000.065	4000.065	4000.065	4000.065	4000.065	37

Compact enclosure HD, single-door

	Packs of	610	810	810	810	810	Page
Width (B) mm							
Height front (H1) mm		650	430	650	1050	1250	
Height rear (H2) mm		769	549	821	1221	1421	
Depth (T) mm		210	210	300	300	300	
Mounting plate width (F) mm		550	750	750	745	745	
Mounting plate height (G) mm		575	355	575	975	1145	
Model No.	1 pc(s).	1310.600	1314.600	1315.600	1316.600	1317.600	
Weight kg		27.4	25.5	39.0	60.1	71.0	

Accessories

Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	39
Cable gland HD		see page	see page	see page	see page	see page	41
Rail for interior installation	4 pc(s).	5001.050	-	5001.050	see Internet	see Internet	40
T handle HD	1 pc(s).	4000.065	4000.065	4000.065	4000.065	4000.065	37



HD accessories Page 36 System accessories Page 65 AX, stainless steel Page 48

Design:

- Roof angled forwards by 30°

Material:

- Enclosures and doors: Stainless steel 1.4301 (AISI 304)
- Mounting plate: Sheet steel
- Lock insert HD: Stainless steel 1.4404 (AISI 316L)
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:

- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Mounting plate: Zinc-plated
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

- IP 66
- IP X9

Protection category NEMA:

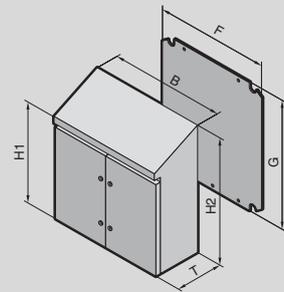
- NEMA 13
- NEMA 4X

Supply includes:

- Enclosure of all-round solid construction
- Door with inserted seal
- Mounting plate

Approvals:

- UL
- cUL



HD compact enclosure, double-door

Width (B) mm	Packs of	1010	1010	Page
Height front (H1) mm		1050	1250	
Height rear (H2) mm		1280	1480	
Depth (T) mm		400	400	
Mounting plate width (F) mm		945	945	
Mounting plate height (G) mm		975	1175	
Model No.	1 pc(s).	1318.600	1319.600	
Accessories				
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	39
Cable gland HD		see page	see page	41
Rail for interior installation	4 pc(s).	5001.052	5001.053	40
T handle HD	1 pc(s).	4000.065	4000.065	37

Hygienic Design



HD accessories Page 36 System accessories Page 65 Air/water heat exchangers Page 93

Material:

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Lock insert HD: Stainless steel 1.4404 (AISI 316L)
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600
- Mounting plate: Sheet steel

Surface finish:

- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Mounting plate: Zinc-plated
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

- IP 66

Supply includes:

- Enclosure frame with welded rear panel gland plate
- Door with inserted seal
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Mounting plate

Optional:

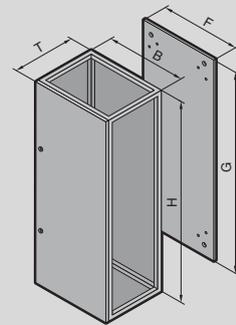
- HD supporting structure with levelling

Note:

- To achieve a protection category of IP 66/IP 59K, the HD versions of the side panel, roof and (where applicable) baying frame must be selected.

Approvals:

- UL
- cUL



System enclosure HD

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		1800	1800	1800	
Depth (T) mm		500	500	500	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1696	1696	1696	
Model No.	1 pc(s).	4000.685	4000.885	4000.285	
Weight kg		89.0	108.0	177.0	
Screw-fastened centre bar		–	–	■	
Number of doors		1	1	2	
Accessories					
Side panels HD	2 pc(s).	4000.185	4000.185	4000.185	36
Baying frame HD	1 pc(s).	4000.785	4000.785	4000.785	36
Mounting plate infill	1 pc(s).	4000.508	4000.508	4000.508	74
Attachment HD	1 pc(s).	4000.565	4000.585	4000.525	38
T handle HD	1 pc(s).	4000.065	4000.065	4000.065	37
Levelling feet HD		see page	see page	see page	36
Hinge HD	2 pc(s).	4000.130	4000.130	4000.130	38
Viewing window HD	1 pc(s).	4000.080	4000.080	4000.080	37
LED system light	1 pc(s).	2500.110	2500.110	2500.110	61



HD accessories P. 36 Printer enclosure HD P. 34 Support arm system CP 40, stainless steel P. 57 Command panel housing with door, stainless steel P. 60

Design:

- Roof angled forwards by 30°

Benefits:

- For hygienic, secure siting of monitors and PCs in the production hall
- Combinable with HD printer enclosure to assemble a complete PC enclosure
- Holder for desktop TFT, height-adjustable for screens up to 24"

Material:

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Lock insert HD: Stainless steel 1.4404 (AISI 316L)
- Viewing window: Polycarbonate
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:

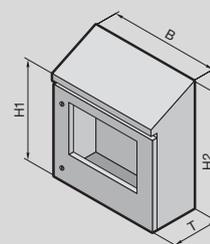
- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

- IP 66

Supply includes:

- Enclosure of all-round solid construction
- Door with viewing window and inserted seal
- R/h door hinge
- Holder for desktop TFT with VESA 75/100 locator



Command panel HD

Design	Packs of	Roof angled forwards by 30°	Page
Width (B) mm		810	
Height front (H1) mm		692	
Height rear (H2) mm		848	
Depth (T) mm		266	
Viewing window width mm		535	
Viewing window height mm		325	
Model No.	1 pc(s).	4000.062	
Weight kg		33.2	
Accessories			
Keyboard support HD	1 pc(s).	4000.072	42
Wall spacer bracket HD	1 pc(s).	4000.100	39
Wall spacer bracket HD	1 pc(s).	4000.110	39
Hinge HD	2 pc(s).	4000.130	38
Cable gland HD		see page	41
Connection components HD	1 pc(s).	4000.066	37
T handle HD	1 pc(s).	4000.065	37

Hygienic Design



HD accessories Page 36 System accessories Page 65 Command panel HD Page 33

Design:

- Enclosure angled forwards by 3°

Benefits:

- For hygienic, secure siting of printers in the production hall
- Combinable with HD command panel to assemble a complete PC enclosure
- Pull-out, height-adjustable component shelf for fast access to printer, e.g. for changing the labels

Material:

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Lock insert HD: Stainless steel 1.4404 (AISI 316L)
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600
- Component shelf: Sheet steel, spray-finished

Surface finish:

- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

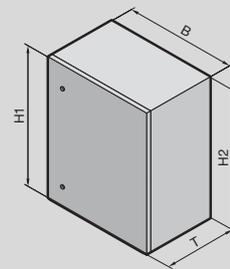
- IP 66

Supply includes:

- Enclosure of all-round solid construction
- Door with inserted seal
- Door hinged on the right, may be swapped to the left
- Component shelf

Optional:

- HD supporting structure with levelling



Printer enclosure HD

Design	Packs of	Enclosure angled forwards by 3°	Page
Width (B) mm		810	
Height front (H1) mm		863	
Height rear (H2) mm		888	
Depth (T) mm		496	
Model No.	1 pc(s).	4000.064	
Weight kg		54.2	
Accessories			
Flap HD	1 pc(s).	4000.068	
Hinge HD	2 pc(s).	4000.130	38
Cable gland HD		see page	41
Connection components HD	1 pc(s).	4000.066	37
T handle HD	1 pc(s).	4000.065	37
Levelling feet HD		see page	36



HD accessories Page 36

Design:

- Roof angled forwards by 30°

Benefits:

- Hygienic, hose-proof storage of fire extinguishers
- Time and cost savings thanks to simple, effective cleaning options
- Fire extinguisher is easily removed with one hand thanks to the T handle
- Quick inventory check with the integral viewing door

Material:

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Handle and lock: Stainless steel 1.4301 (AISI 304)
- Viewing window: Polycarbonate
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish:

- Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
- Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:

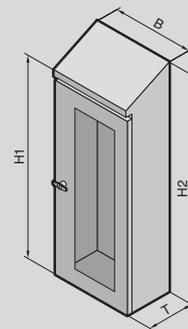
- IP 66

Protection category IP to DIN 40 050-9:

- IP 59K

Supply includes:

- Enclosure of all-round solid construction
- Door with viewing window and inserted seal
- Interchangeable door hinge
- T handle with 3-point lock system



Fire extinguisher enclosure HD

Width (B) mm	Packs of	390	Page
Height (front) (H1) mm		840	
Height (rear) (H2) mm		1010	
Depth (T) mm		300	
Viewing window width mm		190	
Viewing window height mm		670	
Model No.	1 pc(s).	4000.075	
Weight kg		22.0	
Accessories			
Wall spacer bracket HD	1 pc(s).	4000.100	39
Levelling feet HD		see page	36
Hinge HD	2 pc(s).	4000.130	38

Hygienic Design

Accessories



Levelling feet HD

Benefits:

- Minimises cleaning time due to fully covered, permanently sealed threads
- Compensation of floor inclines up to a maximum of 10°, thanks to flexible base
- Baying can even be achieved on sloping floors, thanks to a large levelling range

Material:

- Stainless steel 1.4301 (AISI 304)

Load capacity:

- Max. 7000 N static per levelling foot

Supply includes:

- Assembly parts and seals

Design	Thread	Adjustment range mm	Packs of	Model No.
without base attachment	M12	122 - 175	4 pc(s).	4000.240
with base attachment	M12	122 - 175	4 pc(s).	4000.250



Side panels HD

for HD system enclosure

Material:

- Stainless steel 1.4301 (AISI 304), 2.0 mm

Supply includes:

- With assembly parts for screw-fastening from the inside

Note:

- Depending on the fitted side panel, the overall width of the enclosure is increased by 25 mm

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
1800	500	2 pc(s).	4000.185



Baying frame HD

for HD system enclosure

Material:

- Stainless steel 1.4301 (AISI 304)

Supply includes:

- Seal for HD angled roof
- Assembly parts

Note:

- Depending on the fitted baying frame, the overall width of the enclosure is increased by 44 mm

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
1800	500	1 pc(s).	4000.785

Connection components HD

for command panel HD, printer enclosure HD

For combining the HD command panel and the HD printer enclosure into one PC enclosure.

Material:

- Stainless steel 1.4301 (AISI 304)

Supply includes:

- 2 reinforcement plates for enclosure, top
- 4 reinforcement plates for enclosure, bottom (2 for the roof, 2 for the attachment of levelling feet or supporting structure)
- 2 spacer supports with drilled hole Ø 40 mm for cable entry, height 50/45.8 mm
- Assembly parts and seals

Packs of	Model No.
1 pc(s).	4000.066



Viewing window HD

For the protection of switches or displays.

Benefits:

- Large viewing panel
- Gap-free transition between the viewing window and the frame
- External hinges
- With T handle for easy opening without a key

Material:

- Frame: Stainless steel 1.4301 (AISI 304)
- Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600
- Viewing window: Polycarbonate

Supply includes:

- 2 hinges
- T handle

Width mm	Height mm	Depth mm	Viewing area mm	Packs of	Model No.
518	436	23	410 x 320	1 pc(s).	4000.080



T handle HD

For easy opening without a key. May be exchanged in all enclosures with cam lock.

Material:

- Stainless steel 1.4301 (AISI 304)

Packs of	Model No.
1 pc(s).	4000.065



Cam lock HD

Hygienic Design variant for easy, safe cleaning.

Applications:

- May be integrated into customised applications, e.g. covers of machine panels.

Material:

- Stainless steel 1.4404 (AISI 316L)
- Fastener lug, lock nut: Sheet steel, zinc-plated

Packs of	Model No.
1 pc(s).	2304.010



Accessories:

- Enclosure key HD, see page 42



Hygienic Design

Accessories



Hinge HD

May be exchanged in all HD enclosures with external hinge.

Material:

- Stainless steel 1.4301 (AISI 304)

Supply includes:

- Assembly parts

Packs of	Model No.
2 pc(s).	4000.130



Attachment HD for HD system enclosure

Design:

- Roof angled forwards by 30°

Material:

- Stainless steel 1.4301 (AISI 304)

Supply includes:

- Assembly parts

For enclosure width mm	For enclosure depth mm	Packs of	Model No.
600	500	1 pc(s).	4000.565
800	500	1 pc(s).	4000.585
1200	500	1 pc(s).	4000.525



Also required:

- Side parts HD, see page 38



Side parts HD for HD angled roof

Material:

- Stainless steel 1.4301 (AISI 304)

Supply includes:

- Assembly parts

Packs of	Model No.
2 pc(s).	4000.505

Wall spacer bracket HD

Wall distance mm	Packs of	Model No.
50	1 pc(s).	4000.100

Benefits:

- Creates space for cleaning behind the enclosure
- Shorter assembly times by eliminating the need for an all-round seal
- Improved hygiene by avoiding inaccessible dead spaces or gaps between the enclosure and wall

Functions:

- For mounting on the wall, either from the enclosure interior via a through-hole (max. M8) or from the rear via an integral M10 thread

Material:

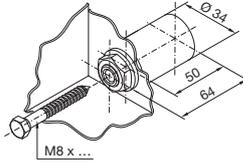
- Stainless steel 1.4301 (AISI 304)

Supply includes:

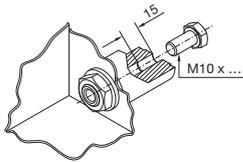
- Assembly parts and seals

Note:

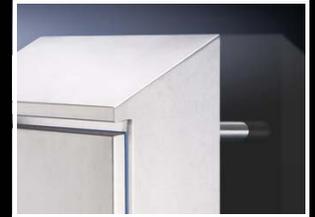
- Depending on the size of the enclosure, up to 4 wall spacer brackets are required to ensure sufficiently stable wall mounting



Attachment from inside



Attachment from outside



Wall spacer bracket HD

Wall distance mm	Packs of	Model No.
150	1 pc(s).	4000.110

Greater distance from the wall to allow cleaning of large surfaces.

Material:

- Bracket: Stainless steel 1.4301 (AISI 304)
- Spacers: Plastic approved for use with food-stuffs, dyed blue

Supply includes:

- 2 brackets
- Spacer support
- Assembly parts



Mounting plate infill HD

for HD system enclosure

For a continuous mounting surface in bayed suites where the mounting plate is set forward.

For enclosure height mm	Packs of	Model No.
1800	1 pc(s).	4000.508

Material:

- Sheet steel, 2 mm

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts



Hygienic Design

Accessories



Rails for interior installation

for HD compact enclosures

For mounting on the existing threaded bolts. With system punchings on three sides.

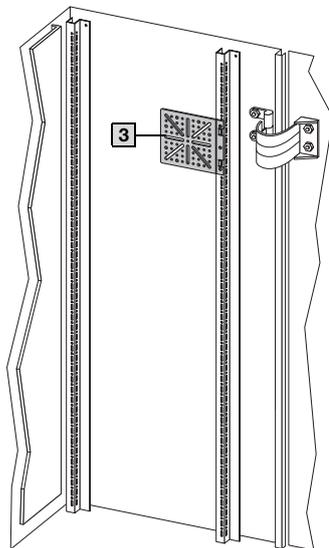
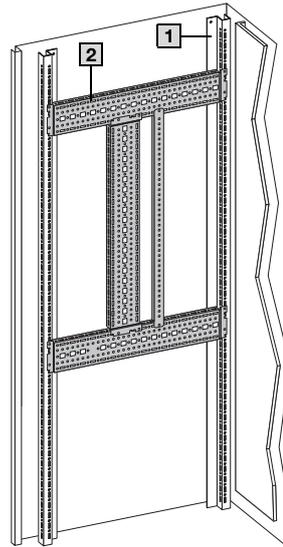
Material:

- Sheet steel, zinc-plated

Supply includes:

- Assembly parts

Length mm	Packs of	Model No.	Page
510	4 pc(s).	5001.050	995
710	4 pc(s).	5001.051	995
910	4 pc(s).	5001.052	995
1110	4 pc(s).	5001.053	995



Interior installation, door

Enclosure	1	1	1
Model No.	Model No.		
1316.600	5001.052	5001.050	5001.050
1317.600	5001.053	5001.051	5001.051
1318.600	5001.052	5001.050	5001.050
1319.600	5001.053	5001.051	5001.051
		5001.050	5001.050

Interior installation, enclosure

Enclosure	1	2	3
	Rails for interior installation 	Punched section with mounting flange, 17 x 73 mm 	Mounting plates
Model No.	Model No.	Model No.	
1308.600 1310.600 1315.600	5001.050	–	–
1316.600	5001.052	8612.130 (only on lock side)	8612.400 8612.410
1317.600	5001.053	8612.130 (only on lock side)	8612.400 8612.410
1318.600	5001.052	–	8612.400 8612.410
1319.600	5001.053	–	8612.400 8612.410

Cable gland HD

More compact design and the lock nut is included with the supply.

Applications:

- Manufacturing and packaging of foodstuffs etc.
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical industry

Benefits:

- Smooth, solid exterior surfaces effectively prevent the depositing of harmful micro-organisms
- Much easier, therefore cheaper, cleaning compared with conventional cable glands

Material:

- Nut: Stainless steel 1.4305 (AISI 303)
- Seal: Compliant with FDA 21 CFR 177.2600

Protection category IP to IEC 60 529:

- IP 69
- IP X8 (5 bar, 30 min.)

Supply includes:

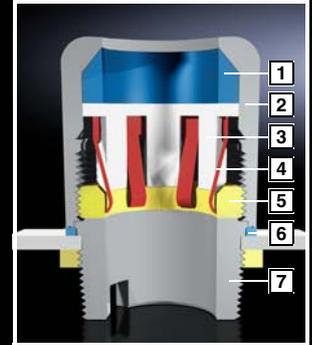
- Cable gland HD
- Lock nut

Standard version

Size	Cable diameter mm	Packs of	Model No.
M12 x 1.5	3 – 6.5	5 pc(s).	2410.001
M16 x 1.5	5 – 10	5 pc(s).	2410.011
M20 x 1.5	6 – 12	5 pc(s).	2410.021
M25 x 1.5	12 – 17	5 pc(s).	2410.031

EMC version

Size	Cable diameter mm	Packs of	Model No.
M16 x 1.5	5 – 10	5 pc(s).	2410.111
M20 x 1.5	6 – 12	5 pc(s).	2410.121
M25 x 1.5	12 – 17	5 pc(s).	2410.131

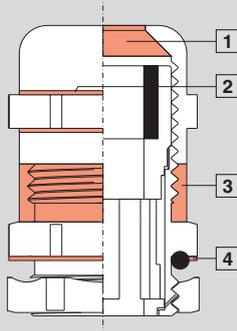


- 1 Seal
- 2 Cap nut
- 3 Gripper jaws
- 4 Shield spring (EMC version only)
- 5 Clamping ring
- 6 Enclosure seal
- 7 Base with locator for assembly tool

Why use hygienic cable glands?

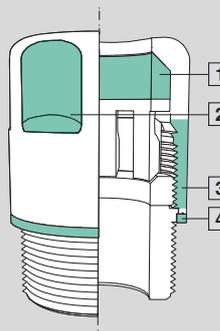
Critical points with conventional solutions

- 1 Cable entry in front of seal
- 2 No minimum radii on the hexagon
- 3 External threads
- 4 Gap caused by O-ring on the enclosure surface



Hygienic design features

- 1 Seal directly at the cable entry
- 2 Compliance with minimum radii on the hexagon
- 3 No external threads
- 4 Flush termination between the cap nut and the enclosure



Assembly tool

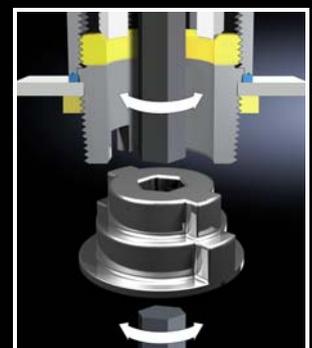
for cable gland HD

For attaching HD cable glands in an internal thread or using lock nuts. This can be achieved either from the inside or from the outside using an Allen key.

Supply includes:

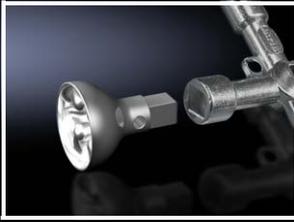
- 1 pc(s). = Adaptor for sizes from M12 – M25

Packs of	Model No.
1 pc(s).	2410.290



Hygienic Design

Accessories



Bit HD
for universal key 2549.500

Packs of	Model No.
1 pc(s).	2549.510



Enclosure key HD

For cam lock HD.

Note:

- Enclosure, case and lock systems are supplied as standard with matching keys

Packs of	Model No.
1 pc(s).	2549.600



Keyboard support HD

To support standard keyboards, including water drain hole.

Material:

- Stainless steel 1.4301 (AISI 304)

Supply includes:

- Spacer support to the enclosure

Width mm	Depth mm	Contact surface, width mm	Contact surface, depth mm	Packs of	Model No.
573	250	570	190	1 pc(s).	4000.072





System accessories Page 65

Material:

- Enclosures: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:

- Enclosure and cover: Brushed, grain size 240

Protection category IP to IEC 60 529:

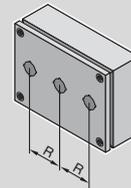
- IP 66

Protection category NEMA:

- NEMA 4X

Supply includes:

- Enclosure with cover
- Quick-release fastener including plastic bushes



Switch housing, stainless steel

Width mm	Packs of	100	160	220	280	Page
Height mm		100	100	100	100	
Depth mm		90	90	90	90	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	2384.010	2384.020	2384.030	2384.040	
Pitch pattern (R) mm		–	60	60	60	
No. of switch cut-outs Ø 22.5 mm		1	2	3	4	
Number of locks		2	4	4	4	
Accessories						
Wall mounting bracket	4 pc(s).	1594.010	1594.010	1594.010	1594.010	72
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	68
Cable gland HD		see page	see page	see page	see page	41
Earth straps	5 pc(s).	2565.100	2565.100	2565.100	2565.100	76

Small enclosures KX



System accessories Page 65 Hygienic Design Page 29

Material:

- Enclosures: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:

- Enclosure and cover: Brushed, grain size 400

Protection category IP to IEC

- 60 529:**
- IP 66

Protection category NEMA:

- NEMA 4X

Supply includes:

- Enclosure with cover
- Mini cam locks

Approvals:

- UL
 - cUL
- Further approvals can be found on the Internet.

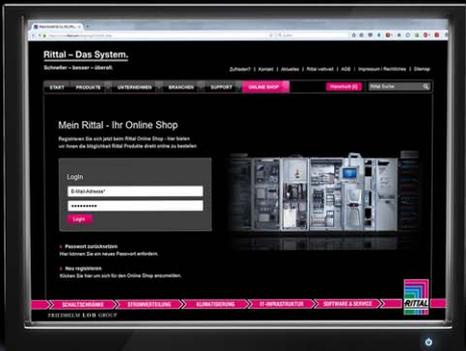
Terminal boxes KX, stainless steel, without gland plate

Width mm	Packs of	150	150	300	200	200	Page
Height mm		150	150	150	200	200	
Depth mm		80	120	80	80	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	1560.000	1564.000	1561.000	1562.000	1565.000	
Weight, approx. kg		1.3	1.6	1.8	1.8	2.2	
Mini cam lock		4	4	4	4	4	
Accessories							
Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	1594.010	1594.010	72
Wall angle	4 pc(s).	–	–	2583.010	2583.010	2583.010	73
Support rails TS 35/7.5	10 pc(s).	2314.000	2314.000	2316.000	2315.000	2315.000	
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	76
Cover hinge, stainless steel	2 pc(s).	1592.210	1592.210	1592.210	1592.210	1592.210	
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	68
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	67

Terminal boxes KX, stainless steel, without gland plate

Width mm	Packs of	300	300	400	300	400	Page
Height mm		200	200	200	300	300	
Depth mm		80	120	120	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	1563.000	1566.000	1568.000	1567.000	1569.000	
Weight, approx. kg		2.4	2.9	3.6	3.9	4.6	
Mini cam lock		4	4	4	4	4	
Accessories							
Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	1594.010	1594.010	72
Wall angle	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	73
Support rails TS 35/7.5	10 pc(s).	2316.000	2316.000	2317.000	2316.000	2317.000	
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	76
Cover hinge, stainless steel	2 pc(s).	1592.210	1592.210	1592.210	1592.210	1592.210	
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	68
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	67

Rittal – The System.



Online shop

Further information can be found at www.rittal.com

Small enclosures KX



System accessories Page 65

Material:

- Enclosure: Stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting plate: Sheet steel

Surface finish:

- Enclosure and door: Brushed, grain size 400
- Mounting plate: Zinc-plated

Protection category IP to IEC

- 60 529:**
- IP 66

Protection category NEMA:

- NEMA 4X

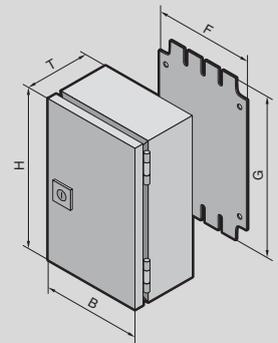
Supply includes:

- Enclosure with door
- Mounting plate
- Cam lock with 3 mm double-bit insert

Approvals:

- UL
- cUL

Further approvals can be found on the Internet.



E-Box KX, stainless steel, depth 120/155 mm

Width (B) mm	Packs of	200	200	200	380	Page
Height (H) mm		300	300	300	300	
Depth (T) mm		120	155	155	155	
Mounting plate width (F) mm		175	175	175	365	
Mounting plate height (G) mm		285	285	285	275	
Material	Stainless steel 1.4301 (AISI 304)	■	■	–	■	
	Stainless steel 1.4404 (AISI 316L)	–	–	■	–	
Material thickness – enclosure mm		1.25	1.25	1.5	1.25	
Material thickness – door mm		1.25	1.25	1.5	1.25	
Model No.	1 pc(s).	1584.000	1587.000	1301.000	1588.000	
Weight, approx. kg		3.6	4.1	4.1	7.5	

Accessories

Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	1594.010	72
Mini-comfort handle AX for padlocks and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	
Cam lock AX with double-bit insert, stainless steel 1.4404 (AISI 316L)	1 pc(s).	2309.110	2309.110	2309.110	2309.110	70
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	76
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	68
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	67

Small enclosures KX



System accessories Page 65

Material:

- Enclosures: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal
- Hinges: Die-cast zinc

Surface finish:

- Enclosure and cover: Brushed, grain size 400

Protection category IP to IEC 60 529:

- IP 66

Protection category NEMA:

- NEMA 4X

Supply includes:

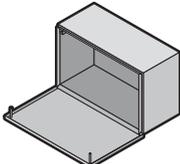
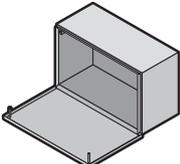
- Enclosure with hinged cover
- Mini cam lock

Approvals:

- UL
- cUL

Further approvals can be found on the Internet.

Bus enclosures KX, stainless steel

					
Width mm	Packs of	200	400	600	Page
Height mm		300	200	200	
Depth mm		80	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	
Model No.	1 pc(s).	1583.000	1585.000	1586.000	
Weight, approx. kg		2.8	4.5	6.0	
Accessories					
Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	72
Wall angle	4 pc(s).	-	-	2583.010	73
Support rails TS 35/7.5	10 pc(s).	2315.000	2317.000	-	
Support rails TS 35/15	10 pc(s).	-	-	2319.000	
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	76
Earth straps	5 pc(s).	2565.100	2565.050	2565.050	76
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	68
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	67

Compact enclosures AX



System accessories Page 65 Hygienic Design Page 29

Material:

- Enclosure: Stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting plate: Sheet steel
- Lock: Die-cast zinc, nickel-plated, double-bit insert stainless steel

Surface finish:

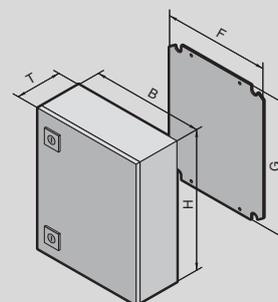
- Enclosure and door: Brushed, grain size 400
- Mounting plate: Zinc-plated

Supply includes:

- Enclosure with door(s)
 - Mounting plate
 - Lock: 3 mm double-bit
- Please note the product-specific scope of supply.

Approvals:

- UL
 - cUL
- Further approvals can be found on the Internet.



Basic enclosure AX, stainless steel

Width (B) mm	Packs of	300	300	Page
Height (H) mm		300	380	
Depth (T) mm		210	210	
Mounting plate width (F) mm		250	250	
Mounting plate height (G) mm		275	355	
Material	Stainless steel 1.4301 (AISI 304)	■	■	
	Stainless steel 1.4404 (AISI 316L)	–	–	
Model No.	1 pc(s).	1003.000	1005.000	
Weight, approx. kg		6.9	8.4	
Protection category IP to IEC 60 529		IP 66	IP 66	
Protection category NEMA		NEMA 4X	NEMA 4X	
Product-specific scope of supply				
Door(s)		1	1	
Cam lock		1	1	
3-point lock system		–	–	
Accessories				
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 15 mm	4 pc(s).	2433.010	2433.010	73
Wall angle, stainless steel 1.4301	4 pc(s).	2583.010	2583.010	73
Rail for interior installation	4 pc(s).	2393.210	2393.210	75
LED system light		–	–	61
Comfort handle AX for lock inserts or profile half-cylinders		–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	
Cam lock AX with double-bit insert, stainless steel 1.4404 (AISI 316L)	1 pc(s).	2304.100	2304.100	70
Lock inserts		see Internet	see Internet	
Perforated door strip		–	–	
Door stay	1 pc(s).	2519.010	2519.010	
Protective roof	1 pc(s).	2476.010	2476.010	74
Earth straps		see page	see page	76

Compact enclosures AX

Basic enclosure AX, stainless steel

Width (B) mm	Packs of	300	380	380	380	380	400	Page
Height (H) mm		380	300	380	380	600	500	
Depth (T) mm		210	210	210	210	210	210	
Mounting plate width (F) mm		250	330	330	330	330	350	
Mounting plate height (G) mm		355	275	355	355	575	475	
Material	Stainless steel 1.4301 (AISI 304)	–	■	■	–	■	■	
	Stainless steel 1.4404 (AISI 316L)	■	–	–	■	–	–	
Model No.	1 pc(s).	1302.000	1011.000	1006.000	1303.000	1008.000	1015.000	
Weight, approx. kg		8.4	8.4	9.8	9.8	15.1	12.9	
Protection category IP to IEC 60 529		IP 66						
Protection category NEMA		NEMA 4X						
Product-specific scope of supply								
Door(s)		1	1	1	1	1	1	
Cam lock		1	1	1	1	2	2	
3-point lock system		–	–	–	–	–	–	
Accessories								
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 15 mm	4 pc(s).	2433.510	2433.010	2433.010	2433.510	2433.010	2433.010	73
Wall angle, stainless steel 1.4301	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	73
Rail for interior installation	4 pc(s).	2393.210	2393.210	2393.210	2393.210	2393.210	2393.210	75
LED system light		–	–	–	–	–	2500.100	61
Comfort handle AX for lock inserts or profile half-cylinders		–	–	–	–	–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	
Cam lock AX with double-bit insert, stainless steel 1.4404 (AISI 316L)	1 pc(s).	2304.100	2304.100	2304.100	2304.100	2304.100	2304.100	70
Lock inserts		see Internet						
Perforated door strip		–	–	–	–	–	–	
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	
Protective roof	1 pc(s).	2476.010	2472.010	2472.010	2472.010	2476.010	–	74
Earth straps		see page	76					

Basic enclosure AX, stainless steel

Width (B) mm	Packs of	500	500	600	600	600	600	Page
Height (H) mm		500	500	380	600	600	760	
Depth (T) mm		210	300	210	210	210	210	
Mounting plate width (F) mm		450	450	550	550	550	550	
Mounting plate height (G) mm		475	475	355	575	575	735	
Material	Stainless steel 1.4301 (AISI 304)	■	■	■	■	–	■	
	Stainless steel 1.4404 (AISI 316L)	–	–	–	–	■	–	
Model No.	1 pc(s).	1007.000	1013.000	1009.000	1010.000	1304.000	1012.000	
Weight, approx. kg		15.7	18.4	14.6	23.5	23.5	30.2	
Protection category IP to IEC 60 529		IP 66						
Protection category NEMA		NEMA 4X						
Product-specific scope of supply								
Door(s)		1	1	1	1	1	1	
Cam lock		2	2	1	2	2	2	
3-point lock system		–	–	–	–	–	–	
Accessories								
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 15 mm	4 pc(s).	2433.010	2433.010	2433.010	2433.010	2433.510	2433.010	73
Wall angle, stainless steel 1.4301	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	73
Rail for interior installation	4 pc(s).	2393.210	2393.210	2393.210	2393.210	2393.210	2393.210	75
LED system light	1 pc(s).	2500.100	2500.100	2500.100	2500.100	2500.100	2500.100	61
Comfort handle AX for lock inserts or profile half-cylinders		–	–	–	–	–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	
Cam lock AX with double-bit insert, stainless steel 1.4404 (AISI 316L)	1 pc(s).	2304.100	2304.100	2304.100	2304.100	2304.100	2304.100	70
Lock inserts		see Internet						
Perforated door strip	2 pc(s).	–	–	–	–	–	2311.076	69
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	
Protective roof	1 pc(s).	2362.010	–	2473.010	2473.010	2473.010	2473.010	74
Earth straps		see page	76					
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	
Cable gland, polyamide M63 x 1.5	3 pc(s).	2411.671	2411.671	2411.671	2411.671	2411.671	2411.671	

Compact enclosures AX

Basic enclosure AX, stainless steel

Width (B) mm	Packs of	760	800	800	1000	1000	1000	Page
Height (H) mm		760	1000	1200	1000	1200	1200	
Depth (T) mm		300	300	300	300	300	300	
Mounting plate width (F) mm		705	745	745	945	945	945	
Mounting plate height (G) mm		735	975	1175	975	1175	1175	
Material	Stainless steel 1.4301 (AISI 304)	■	■	■	■	■	–	
	Stainless steel 1.4404 (AISI 316L)	–	–	–	–	–	■	
Model No.	1 pc(s).	1014.000	1016.000	1017.000	1018.000	1019.000	1305.000	
Weight, approx. kg		42.5	52.9	61.5	71.0	76.0	76.0	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 55	IP 55	IP 55	
Protection category NEMA		NEMA 4X	NEMA 4X	NEMA 4X	NEMA 12	NEMA 12	NEMA 12	
Product-specific scope of supply								
Door(s)		1	1	1	2	2	2	
Cam lock		2	2	–	2	–	–	
3-point lock system		–	–	■	–	■	■	
Accessories								
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 15 mm	4 pc(s).	2433.010	2433.010	2433.010	2433.010	2433.010	2433.510	73
Wall angle, stainless steel 1.4301	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	73
Rail for interior installation	4 pc(s).	2393.300	2393.300	2393.300	2393.300	2393.300	2393.300	75
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	–	8619.750	8619.770	8619.750	8619.770	8619.770	
Punched section with mounting flange 14 x 39 mm, installation in the door	4 pc(s).	–	–	8619.730	–	8619.710	8619.710	
Support strips	20 pc(s).	4599.200	4697.000	4697.000	4695.000	4695.000	4695.000	
LED system light	1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	61
Comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	–	–	2435.100	–	2435.100	2435.100	
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	–	2537.100	–	–	
Cam lock AX with double-bit insert, stainless steel 1.4404 (AISI 316L)	1 pc(s).	2304.100	2304.100	2304.100	2304.100	–	2304.100	70
Lock inserts		see Internet						
Perforated door strip	2 pc(s).	2311.076	2311.100	2311.120	2311.100	2311.120	2311.120	69
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	
Protective roof	1 pc(s).	2474.010	2475.010	2475.010	2363.010	2363.010	2363.010	74
Earth straps		see page	76					

Baying enclosure system VX25, stainless steel



System accessories Page 65 Hygienic Design Page 29

Material and surface finish:

- Enclosure frame: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Roof: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated

Protection category IP to IEC 60 529:

- IP 55

Protection category NEMA:

- NEMA 12

Supply includes:

- Enclosure frame
- Door(s) (r/h hinge, may be swapped to opposite side)
- Roof plate
- Gland plates
- Rear panel
- Mounting plate
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

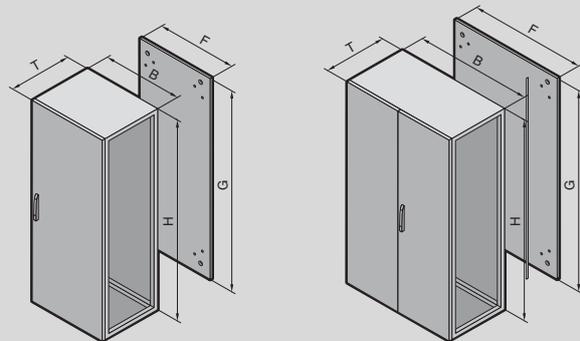
Note:

- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation

Approvals:

- UL
- cUL
- DNV-GL

Further approvals can be found on the Internet.



Baying enclosure system VX25, stainless steel

Basic enclosure, height 1800 mm, depth 400 mm

Width (B) mm	Packs of	800	1200	Page
Height (H) mm		1800	1800	
Depth (T) mm		400	400	
Mounting plate width (F) mm		699	1099	
Mounting plate height (G) mm		1696	1696	
Model No.	1 pc(s).	8454.000	8456.000	
Weight, approx. kg		110.0	167.0	
Product-specific scope of supply				
Door(s)		1	2	
Accessories				
Base/plinth corner pieces with base/plinth trim panel, front and rear, 100 mm	2 pc(s).	8620.051	8620.053	65
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.070	8620.070	65
Base/plinth corner pieces with base/plinth trim panel, front and rear, 200 mm	2 pc(s).	8620.061	8620.063	65
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.080	8620.080	65
Levelling feet	4 pc(s).	8100.780	8100.780	
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.030	8700.030	68
Baying connector, external, stainless steel	6 pc(s).	8617.503	8617.503	
Comfort handle VX for lock inserts	1 pc(s).	8618.220	8618.220	
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	8618.280	
Lock inserts		see Internet	see Internet	
180° hinges, stainless steel	4 pc(s).	8618.340	8618.340	69
Door stay	1 pc(s).	8618.430	8618.430	
Door stay for escape routes	1 pc(s).	8618.425	8618.425	
Ride-up roller	10 pc(s).	8618.420	8618.420	69
Mounting plate infill	1 pc(s).	4590.700	4590.700	74
LED system light		see page	see page	61
Earth straps		see page	see page	76

Basic enclosure, height 1800 mm, depth 500 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		1800	1800	1800	
Depth (T) mm		500	500	500	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1696	1696	1696	
Model No.	1 pc(s).	8457.000	8455.000	8453.000	
Weight, approx. kg		91.8	113.0	172.0	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Base/plinth corner pieces with base/plinth trim panel, front and rear, 100 mm	2 pc(s).	8620.050	8620.051	8620.053	65
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.071	8620.071	8620.071	65
Base/plinth corner pieces with base/plinth trim panel, front and rear, 200 mm	2 pc(s).	8620.060	8620.061	8620.063	65
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.081	8620.081	8620.081	65
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780	
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.040	8700.040	8700.040	68
Baying connector, external, stainless steel	6 pc(s).	8617.503	8617.503	8617.503	
Comfort handle VX for lock inserts	1 pc(s).	8618.220	8618.220	8618.220	
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	8618.280	8618.280	
Lock inserts		see Internet	see Internet	see Internet	
180° hinges, stainless steel	4 pc(s).	8618.340	8618.340	8618.340	69
Door stay	1 pc(s).	8618.430	8618.430	8618.430	
Door stay for escape routes	1 pc(s).	8618.425	8618.425	8618.425	
Ride-up roller	10 pc(s).	8618.420	8618.420	8618.420	69
Mounting plate infill	1 pc(s).	4590.700	4590.700	4590.700	74
LED system light		see page	see page	see page	61
Earth straps		see page	see page	see page	76

Baying enclosure system VX25, stainless steel

Basic enclosure, height 2000 mm, depth 600 mm

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		2000	2000	2000	
Depth (T) mm		600	600	600	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1896	1896	1896	
Model No.	1 pc(s).	8452.000	8450.000	8451.000	
Weight, approx. kg		101.0	126.0	191.0	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Base/plinth corner pieces with base/plinth trim panel, front and rear, 100 mm	2 pc(s).	8620.050	8620.051	8620.053	65
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.072	8620.072	8620.072	65
Base/plinth corner pieces with base/plinth trim panel, front and rear, 200 mm	2 pc(s).	8620.060	8620.061	8620.063	65
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.082	8620.082	8620.082	65
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780	
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.050	8700.050	8700.050	68
Baying connector, external, stainless steel	6 pc(s).	8617.503	8617.503	8617.503	
Comfort handle VX for lock inserts	1 pc(s).	8618.220	8618.220	8618.220	
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	8618.280	8618.280	
Lock inserts		see Internet	see Internet	see Internet	
180° hinges, stainless steel	4 pc(s).	8618.340	8618.340	8618.340	69
Door stay	1 pc(s).	8618.430	8618.430	8618.430	
Door stay for escape routes	1 pc(s).	8618.425	8618.425	8618.425	
Ride-up roller	10 pc(s).	8618.420	8618.420	8618.420	69
Mounting plate infill	1 pc(s).	4591.700	4591.700	4591.700	74
LED system light		see page	see page	see page	61
Earth straps		see page	see page	see page	76



Free-standing enclosure system VX SE



System accessories Page 65

Material and surface finish:

- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm, uncoated

Protection category IP to IEC 60 529:

- IP 55

Protection category NEMA:

- NEMA 12

Supply includes:

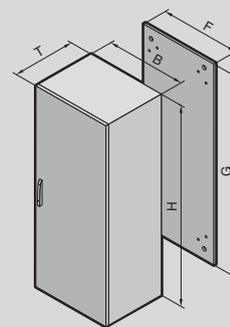
- Enclosure, solid top and sides
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Rear panel, detachable
- Mounting plate
- Gland plates
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Note:

- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation

Approvals:

- UL
- cUL



Free-standing enclosure system VX SE

Stainless steel

Width (B) mm	Packs of	600	600	800	800	1000	1200	Page
Height (H) mm		1600	1800	1800	2000	1800	2000	
Depth (T) mm		400	500	500	600	400	500	
Mounting plate width (F) mm		499	499	699	699	899	1099	
Mounting plate height (G) mm		1496	1696	1696	1896	1696	1896	
Model No.	1 pc(s).	5850.600	5851.600	5852.600	5853.600	5854.600	5855.600	
Door(s)		1	1	1	1	1	2	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.050	8620.050	8620.051	8620.051	8620.052	8620.053	65
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.070	8620.071	8620.071	8620.072	8620.070	8620.071	65
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.060	8620.060	8620.061	8620.061	8620.062	8620.063	65
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.080	8620.081	8620.081	8620.082	8620.080	8620.081	65
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780	8100.780	8100.780	8100.780	66
Comfort handle for lock inserts	1 pc(s).	8611.330	8611.330	8611.330	8611.330	8611.330	8611.330	
Comfort handle for profile half-cylinders	1 pc(s).	8611.340	8611.340	8611.340	8611.340	8611.340	8611.340	
Lock inserts	1 pc(s).	see Internet	see Internet	see Internet	see Internet	see Internet	see Internet	
180° hinges	4 pc(s).	8701.180	8701.180	8701.180	8701.180	8701.180	8701.180	
Punched section with mounting flange, 14 x 39 mm, for door	4 pc(s).	8619.720	8619.720	8619.730	8619.730	8619.750	8619.720	76
Wiring plan pocket, depth 35 mm	1 pc(s).	4116.500	4116.500	4118.500	4118.500	–	4116.500	
Wiring plan pocket, depth 90 mm	1 pc(s).	4116.000	4116.000	4118.000	4118.000	4124.000	4116.000	
Door stay	5 pc(s).	4583.000	4583.000	4583.000	4583.000	4583.000	4583.000	
Door stay for escape routes	1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	
Ride-up roller	10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	4538.000	
Adaptor rail VX to fit enclosure height	4 pc(s).	8617.750 ²⁾	8617.750	8617.750	8617.751	8617.750	8617.751	
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth	4 pc(s).	8612.040	8612.050	8612.050	8612.060	8612.040	8612.050	
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth	4 pc(s).	8612.140	8612.150	8612.150	8612.160	8612.140	8612.150	
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth ¹⁾	4 pc(s).	8617.110	8617.120	8617.120	8617.130	8617.110	8617.120	
Punched section with mounting flange 23 x 64 mm for the inner level, in the width ¹⁾	4 pc(s).	8617.130	8617.130	8617.140	8617.140	8617.150	8617.160	
Punched rail 18 x 39 mm for the enclosure depth ¹⁾	4 pc(s).	8617.700	8617.710	8617.710	8617.720	8617.700	8617.710	
Support strip for the outer level for enclosure depth	20 pc(s).	4694.000	4695.000	4695.000	4696.000	4694.000	4695.000	71
Support strip for the inner level for enclosure depth	20 pc(s).	4309.000	4596.000	4596.000	8800.130	4309.000	4596.000	71
C rail 30/15, for the enclosure width	6 pc(s).	4944.000	4944.000	4945.000	4945.000	4946.000	4947.000	
Support rail 48 x 26 mm, for the enclosure width ¹⁾	2 pc(s).	8617.800	8617.800	8617.810	8617.810	8617.820	8617.830	
LED system light		see page	see page	see page	see page	see page	see page	61
Earth straps		see page	see page	see page	see page	see page	see page	76
Cable entry plate		8619.800	8619.800	8619.801	8619.801	8619.802	8619.803	
	Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	
Connector grommets	10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	4311.000	
Section for cable entry, centre		8618.800	8618.800	8618.801	8618.801	8618.802	8618.803	
	Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Section for cable entry, rear		8618.810	8618.810	8618.811	8618.811	8618.812	8618.813	
	Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable duct		see Internet	see Internet	see Internet	see Internet	see Internet	see Internet	
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.410	8619.420	8619.420	8619.430	8619.440	

¹⁾ The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see Internet

²⁾ The VX adaptor rail for 1800 mm high enclosures 8617.750 can be cut to length accordingly for use in 1600 mm high enclosures

Free-standing enclosure system VX SE



System accessories Page 65

Material and surface finish:

- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated
- Base plate: Stainless steel 1.4301 (AISI 304), 1.5 mm

Protection category IP to IEC 60 529:

- IP 66

Protection category NEMA:

- NEMA 4X

Supply includes:

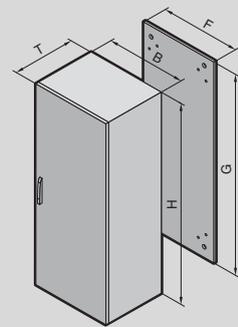
- Enclosure, solid top and sides
- Door(s)
- Door hinged on the right, may be swapped to the left
- Rear panel, detachable
- Mounting plate
- Base, solid
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Note:

- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation

Approvals:

- UL
- cUL



IP 66/NEMA 4X, stainless steel

Width (B) mm	Packs of	600	800	800	2000	Page
Height (H) mm		1600	1800	2000		
Depth (T) mm		400	500	600		
Mounting plate width (F) mm		499	699	699		
Mounting plate height (G) mm		1496	1696	1896		
Model No.	1 pc(s).	5850.680	5852.680	5853.680		
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.050	8620.051	8620.051		65
Base/plinth trim panels, side, 100 mm	2 pc(s).	8620.070	8620.071	8620.072		65
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.060	8620.061	8620.061		65
Base/plinth trim panels, side, 200 mm	2 pc(s).	8620.080	8620.081	8620.082		65
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780		66
Comfort handle for lock inserts	1 pc(s).	8611.330	8611.330	8611.330		
Comfort handle for profile half-cylinders	1 pc(s).	8611.340	8611.340	8611.340		
Lock inserts	1 pc(s).	see Internet	see Internet	see Internet		
Punched section with mounting flange, 14 x 39 mm, for door	4 pc(s).	8619.720	8619.730	8619.730		76
Wiring plan pocket, depth 90 mm	1 pc(s).	4116.000	4118.000	4118.000		
Door stay	5 pc(s).	4583.000	4583.000	4583.000		
Adaptor rail VX to fit enclosure height	4 pc(s).	8617.750 ²⁾	8617.750	8617.751		
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth	4 pc(s).	8612.040	8612.050	8612.060		
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth	4 pc(s).	8612.140	8612.150	8612.160		
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth ¹⁾	4 pc(s).	8617.110	8617.120	8617.130		
Punched section with mounting flange 23 x 64 mm for the inner level, in the width ¹⁾	4 pc(s).	8617.130	8617.140	8617.140		
LED system light		see page	see page	see page		61
Earth straps		see page	see page	see page		76
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.420	8619.420		

¹⁾ The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see Internet

²⁾ The VX adaptor rail for 1800 mm high enclosures 8617.750 can be cut to length accordingly for use in 1600 mm high enclosures

Support arm system CP 40, stainless steel



Command panel housing with door, stainless steel Page 60 Premium Panel, stainless steel Page 59 Support section CP 40, steel Page 58

Support section CP 40, stainless steel

Attached to the connection components via 2 clamping screws

Size:

- Outer diameter: 48.3 mm
- Wall thickness: 3.6 mm

Material:

- Stainless steel

Surface finish:

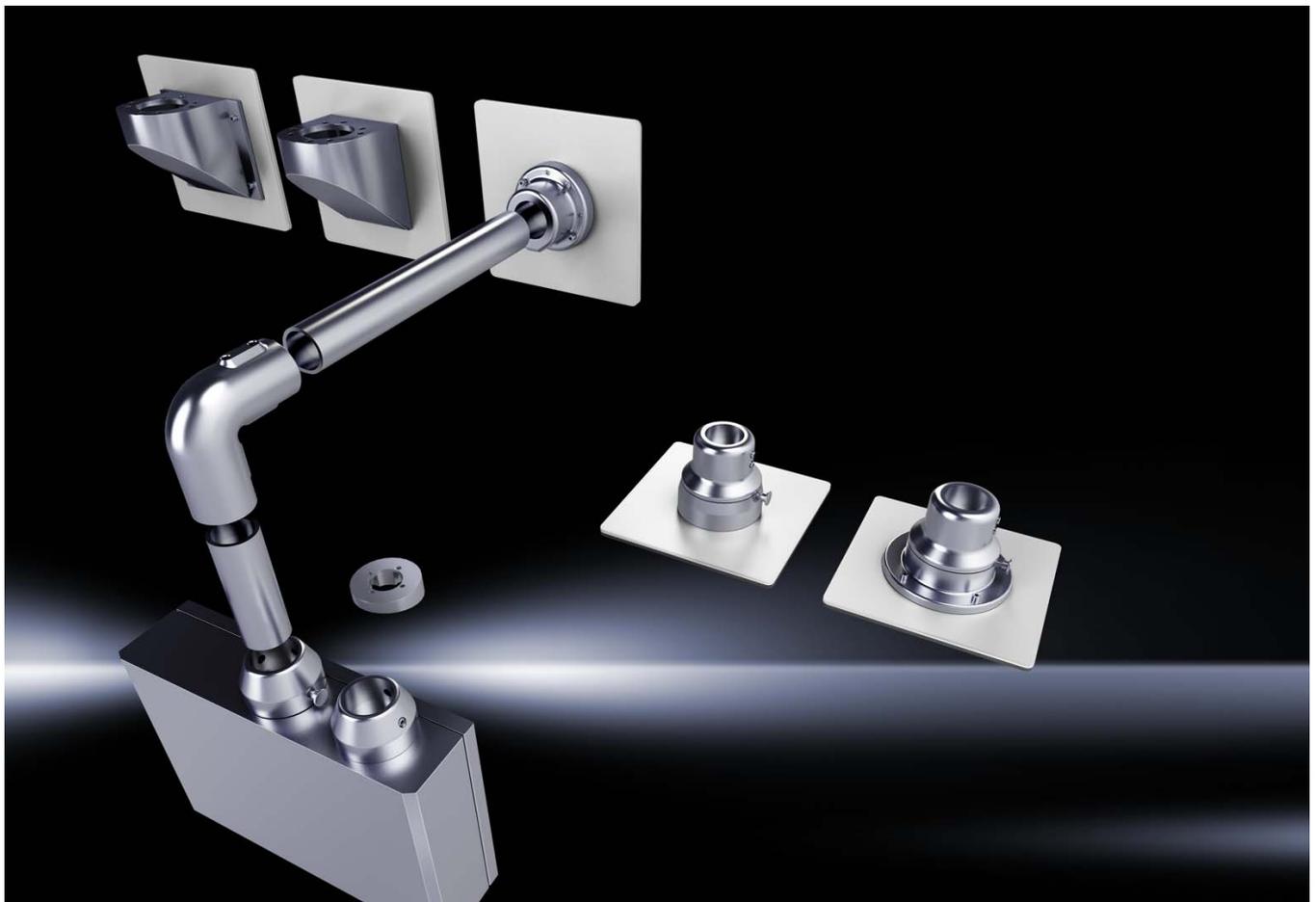
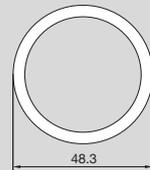
- Brushed, grain size 240 (support section and wall console only)

Protection category IP to IEC 60 529:

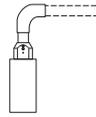
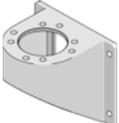
- IP 66
- IP X9

Supply includes:

- Support section, stainless steel

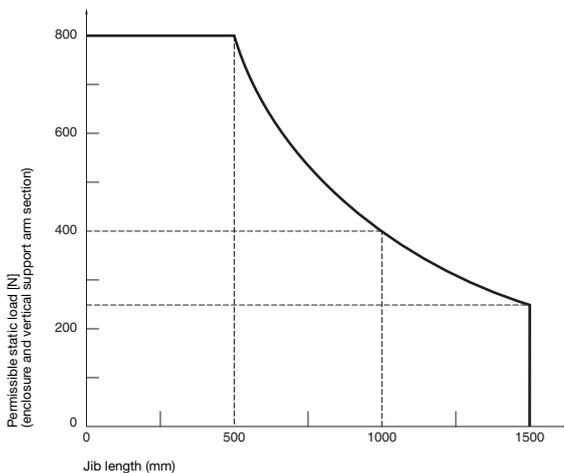


Support arm system CP 40, stainless steel

		Rotating/tilting	Rigid	Length mm	Weight kg	Material	Enclosure section 	Desk section 	Wall section 
		Model No.							
Tilting adaptor 10° CP 40, stainless steel									
		-	■	-	0.7	1,4305 (AISI 303)	6664.100	-	-
Attachment CP 40, stainless steel									
		-	■	-	1.3	1,4305 (AISI 303)	6664.500	-	-
Coupling CP 40, stainless steel									
		■	-	-	1.1	1,4305 (AISI 303)	6664.000	-	-
Support section CP 40, stainless steel									
		-	■	500 1000	2.0 3.9	1,4301 (AISI 304)	6660.050 6660.010		
Angle piece 90° CP 40, stainless steel									
		-	■	-	1.3	1,4301 (AISI 304)	6664.300	-	6664.300
Wall/base mounting bracket, rigid, CP 40, stainless steel									
		-	■	-	1.7	1,4305 (AISI 303)	-	-	6663.000
Wall/base mounting bracket, rotating, CP 40, stainless steel									
	Rear, thread M8 Front, hole Ø 9 mm	■	-	-	3.9 4.5	1,4305 (AISI 303)	-	-	6663.500 6663.400
Wall console CP 40, stainless steel									
	Rear, thread M8 Front, hole Ø 9 mm	-	■	-	1.5 1.8	1,4301 (AISI 304)	-	-	6665.000 6665.500

Load information

Permissible load depending on system configuration





System accessories Page 65 **Support arm system CP 40, stainless steel** Page 57 **Hygienic Design** Page 29

Benefits:

- Resistant to high-pressure cleaning: The seal lies between two surfaces and is optimally compressed by the screw fastening.
- Suitable for clean room use: Screw fastening to comply with high standards in the food industry. With plastic stoppers on the inside or hex screws on the outside.

Material:

- Stainless steel 1.4301 (AISI 304)

Surface finish:

- Brushed, grain size 240

Protection category IP to

IEC 60 529:

- IP 66
- IP X9

Clean room class:

- Air purity class 1 to DIN EN ISO 14 644-1

Stainless steel

Width mm	Packs of	530
Height mm		360
Depth mm		120
Operating housing for panel width mm		482,6
Operating housing for panel height mm		310
Installation depth mm		115
Support arm connection		Top or bottom (by rotating the enclosure)
Model No.	1 pc(s).	6681.000
Weight kg		9,3

Command panel housing with door



System accessories Page 65 Support arm system CP 40, stainless steel Page 57 Hygienic Design Page 29

Material:

- Enclosure and door: Stainless steel 1.4301 (AISI 304)
- Handle strips: Plastic approved for use with foodstuffs, dyed blue

Surface finish:

- Brushed, grain size 240

Colour:

- Handle strips: similar to RAL 5002

Protection category IP to IEC 60 529:

- IP 66

Protection category NEMA:

- NEMA 12

Supply includes:

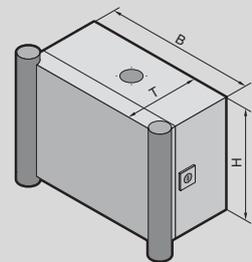
- Enclosure of all-round solid construction
- Cut-out and reinforcement for support arm system CP 40 stainless steel
- Fastener with guide plate
- Door with sealing frame and side handle strips
- Lock: 3 mm double-bit

Note:

- The support arm connection and door hinge may be swapped over by rotating the enclosure
- 3 mm double-bit lock insert may be exchanged for 41 mm lock inserts, plastic handles and T handles, type C

Approvals:

- UL
- CSA
- TÜV



Stainless steel

Width (B) mm	Packs of	300	400	400	600	Page
Height (H) mm		300	300	400	400	
Depth (T) mm		150	150	150	150	
Model No.	1 pc(s).	6535.010	6536.010	6538.010	6539.010	
Weight kg		6.3	7.5	8.8	12.1	
Accessories						
Support rail TS 35/7.5	10 pc(s).	2316.000	2317.000	2317.000	-	
Support rail TS 35/15	10 pc(s).	-	-	-	2319.000	
Support strip	20 pc(s).	-	4694.000	4694.000	4696.000	71

LED system light



Baying enclosure system VX25 Page 51 Compact enclosures AX Page 48

Benefits:

- Optimum illumination of the entire enclosure
- Optionally with clip, screw or magnetic attachment
- Equipment to suit every application

Material:

- Plastic
- Aluminium

Colour:

- Enclosure: RAL 7016

Protection class:

- II (all-insulated)

Light colour:

- 4000 K (neutral white)

Supply includes:

- Assembly screws

Note:

- Connection accessories should be ordered separately

Model No.		2500.300	2500.310	2500.311	2500.312	2500.313	Page
Output (lumens)		1200	1200	1200	1200	1200	
Length (mm)		437	437	437	437	437	
Motion sensor		■	■	■	■	■	
Rated operating voltage	100 – 240 V AC	■	■	■	■	■	
	24 V DC	–	–	–	–	–	
Equipment	Socket	–	D, earthing-pin	GB	F/B	CH	
	90° rotating connector	■	■	■	■	■	
	Adjustable light direction	■	■	■	■	■	
	Adjustable light distribution	■	■	■	■	■	
Approvals	UL/cUL	■	–	–	–	–	
	CSA	■	–	–	–	–	
	CCC	■	–	–	–	–	
	ENEC	■	■	■	■	■	
Installation type	Screw-fastening	■	■	■	■	■	
	Clip attachment	■	■	■	■	■	
	Magnetic attachment to surfaces (accessory)	■	–	–	–	–	
Connection options	Infeed	3-pole	3-pole	3-pole	3-pole	3-pole	
	Through-wiring	3-pole	3-pole	3-pole	3-pole	3-pole	
	Door-operated switch (accessory)	–	–	–	–	–	
Mounting options ¹⁾	Enclosures with a 25 mm pitch pattern						
	Screw fastening/clip	Directly on the profile					

Accessories

Rail for interior installation AX	see page	75				
Mounting bracket	6205.100	6205.100	6205.100	6205.100	6205.100	
Mounting kit magnet	2500.490	–	–	–	–	
Door-operated switch	–	–	–	–	–	
Door-operated switch, UL	–	–	–	–	–	

Connection accessories

Infeed, 2-pole	–	–	–	–	–	
Infeed, 2-pole, UL	–	–	–	–	–	
Infeed, 3-pole	2500.400	2500.400	2500.400	2500.400	2500.400	
Infeed, 3-pole, UL	2500.500	–	–	–	–	
Through-wiring, 2-pole	–	–	–	–	–	
Through-wiring, 2-pole, UL	–	–	–	–	–	
Through-wiring, 3-pole	2500.430	2500.430	2500.430	2500.430	2500.430	
Through-wiring, 3-pole, UL	2500.530	–	–	–	–	

¹⁾ The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

LED system light

						
Model No.	2500.314	2500.320	2500.200	2500.210	2500.211	Page
Output (lumens)	1200	1200	900	900	900	
Length (mm)	437	437	437	437	437	
Motion sensor	■	■	–	–	–	
Rated operating voltage	100 – 240 V AC	100 – 125 V AC	–	■	■	
	24 V DC	–	■	–	–	
Equipment	Socket	USA / CDN	–	–	D, earthing-pin	GB
	90° rotating connector	■	■	■	■	■
	Adjustable light direction	■	■	–	–	–
	Adjustable light distribution	■	■	■	■	■
Approvals	UL/cUL	■	■	■	–	–
	CSA	■	–	■	–	–
	CCC	–	■	■	–	–
	ENEC	■	–	■	■	■
Installation type	Screw-fastening	■	■	■	■	■
	Clip attachment	■	■	■	■	■
	Magnetic attachment to surfaces (accessory)	–	■	■	–	–
Connection options	Infeed	3-pole	2-pole	3-pole	3-pole	3-pole
	Through-wiring	3-pole	2-pole	3-pole	3-pole	3-pole
	Door-operated switch (accessory)	–	–	■	■	■
Mounting options ¹⁾	Enclosures with a 25 mm pitch pattern		Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile
	Screw fastening/clip					

Accessories

Rail for interior installation AX	see page	75				
Mounting bracket	6205.100	6205.100	6205.100	6205.100	6205.100	
Mounting kit magnet	–	2500.490	2500.490	–	–	
Door-operated switch	–	–	2500.460	2500.460	2500.460	
Door-operated switch, UL	–	–	2500.470	–	–	

Connection accessories

Infeed, 2-pole	–	2500.410	–	–	–	
Infeed, 2-pole, UL	–	–	–	–	–	
Infeed, 3-pole	–	–	2500.400	2500.400	2500.400	
Infeed, 3-pole, UL	2500.500	–	2500.500	–	–	
Through-wiring, 2-pole	–	2500.440	–	–	–	
Through-wiring, 2-pole, UL	–	–	–	–	–	
Through-wiring, 3-pole	–	–	2500.430	2500.430	2500.430	
Through-wiring, 3-pole, UL	2500.530	–	2500.530	–	–	

¹⁾ The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

LED system light

						
Model No.	2500.212	2500.213	2500.214	2500.220	Page	
Output (lumens)	900	900	900	900		
Length (mm)	437	437	437	437		
Motion sensor	–	–	–	–		
Rated operating voltage	100 – 240 V AC	■	■	100 – 125 V AC	–	
	24 V DC	–	–	–	■	
Equipment	Socket	F/B	CH	USA / CDN	–	
	90° rotating connector	■	■	■	■	
	Adjustable light direction	–	–	–	–	
	Adjustable light distribution	■	■	■	■	
Approvals	UL/cUL	–	–	■	■	
	CSA	–	–	■	■	
	CCC	–	–	–	■	
	ENEC	■	■	■	■	
Installation type	Screw-fastening	■	■	■	■	
	Clip attachment	■	■	■	■	
	Magnetic attachment to surfaces (accessory)	–	–	–	■	
Connection options	Infeed	3-pole	3-pole	3-pole	2-pole	
	Through-wiring	3-pole	3-pole	3-pole	2-pole	
	Door-operated switch (accessory)	■	■	■	■	
Mounting options ¹⁾	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile

Accessories

Rail for interior installation AX	see page	see page	see page	see page	75
Mounting bracket	6205.100	6205.100	6205.100	6205.100	
Mounting kit magnet	–	–	–	2500.490	
Door-operated switch	2500.460	2500.460	2500.460	2500.460	
Door-operated switch, UL	–	–	2500.470	2500.470	

Connection accessories

Infeed, 2-pole	–	–	–	2500.410	
Infeed, 2-pole, UL	–	–	–	–	
Infeed, 3-pole	2500.400	2500.400	–	–	
Infeed, 3-pole, UL	–	–	2500.500	–	
Through-wiring, 2-pole	–	–	–	2500.440	
Through-wiring, 2-pole, UL	–	–	–	–	
Through-wiring, 3-pole	2500.430	2500.430	–	–	
Through-wiring, 3-pole, UL	–	–	2500.530	–	

¹⁾ The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

LED system light

					
Model No.	2500.100	2500.104	2500.110	2500.114	Page
Output (lumens)	400	400	600	600	
Length (mm)	262	262	337	337	
Motion sensor	–	–	–	–	
Rated operating voltage	100 – 240 V AC	■	■	■	
	24 V DC	–	–	–	
Equipment	Socket	–	–	–	
	90° rotating connector	–	–	–	
	Adjustable light direction	–	–	–	
	Adjustable light distribution	–	–	–	
Approvals	UL/cUL	–	■	–	■
	CSA	–	■	–	■
	CCC	■	■	■	■
	ENEC	■	■	■	■
Installation type	Screw-fastening	■	■	■	■
	Clip attachment	■	■	■	■
	Magnetic attachment to surfaces (accessory)	■	■	■	■
Connection options	Infeed	2-pole	2-pole	2-pole	2-pole
	Through-wiring	2-pole	2-pole	2-pole	2-pole
	Door-operated switch (accessory)	■	■	■	■
Mounting options ¹⁾	Enclosures with a 25 mm pitch pattern		Directly on the profile	Directly on the profile	Directly on the profile
	Screw fastening/clip		Directly on the profile	Directly on the profile	Directly on the profile

Accessories

Rail for interior installation AX	see page	see page	see page	see page	75
Mounting bracket	6205.100	6205.100	6205.100	6205.100	
Mounting kit magnet	2500.490	2500.490	2500.490	2500.490	
Door-operated switch	2500.460	–	2500.460	–	
Door-operated switch, UL	–	2500.470	–	2500.470	

Connection accessories

Infeed, 2-pole	2500.420	–	2500.420	–	
Infeed, 2-pole, UL	–	2500.520	–	2500.520	
Infeed, 3-pole	–	–	–	–	
Infeed, 3-pole, UL	–	–	–	–	
Through-wiring, 2-pole	2500.450	–	2500.450	–	
Through-wiring, 2-pole, UL	–	2500.550	–	2500.550	
Through-wiring, 3-pole	–	–	–	–	
Through-wiring, 3-pole, UL	–	–	–	–	

¹⁾ The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

Base/plinth corner pieces with base/plinth trim panels, front and rear

Stainless steel for VX, VX SE, PC

High-load capacity base/plinth corner pieces with moulded self-positioning to the enclosure, may be used with or without trim panels depending on the application. Large openings in the corner piece for optimum access to the screw-fastening point, may be concealed with a plastic corner and baying cover.

Material:

- Base/plinth corner piece: Stainless steel 1.4301 (AISI 304)
- Base/plinth trim panel, front/rear: Stainless steel 1.4301 (AISI 304 steel)
- Corner and baying cover: Plastic

Surface finish

- Trim panel: Grain size 400

100 mm high supply includes:

- 4 base/plinth corner pieces, 100 mm high
- 4 corner covers
- 1 baying cover
- 2 base/plinth trim panels, front/rear, 100 mm high
- Assembly parts

200 mm high supply includes:

- 4 base/plinth corner pieces, 200 mm high
- 4 corner covers
- 1 baying cover
- 1 base/plinth trim panel, front/rear, 200 mm high
- 2 base/plinth trim panels, front/rear, 100 mm high
- Assembly parts

For enclosure width mm	Height mm	Model No.
600	100	8620.050
800	100	8620.051
1000	100	8620.052
1200	100	8620.053
600	200	8620.060
800	200	8620.061
1000	200	8620.062
1200	200	8620.063



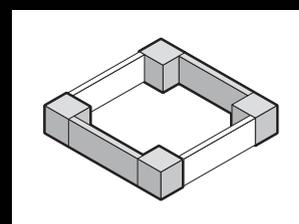
Also required:

- Base/plinth trim panels, sides, to finish off a unit, for additional stabilisation between base/plinths, or for interior configuration, see page 65



Accessories:

- Base/plinth installation bracket, see Internet
- Levelling component for base/plinth, see Internet
- Base mounting plate, see Internet
- Base/plinth adaptor for twin castors and levelling feet, see page 66
- Transport castors for base/plinth, see Internet
- C rails, see Internet



Base/plinth trim panel, sides

Stainless steel for base/plinth VX

To finish off a base/plinth unit at the sides and for additional stabilisation or for the interior configuration of bayed base/plinths. One 200 mm high or two 100 mm high trim panels may optionally be fitted on 200 mm high base/plinths.

Material:

- Stainless steel 1.4301 (AISI 304)

Surface finish:

- Brushed, grain size 400

Supply includes:

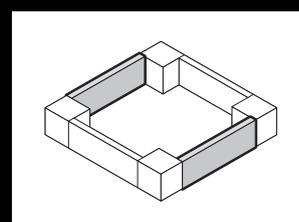
- 2 base/plinth trim panels
- Assembly parts

For enclosure depth mm	Height mm	Model No.
400	100	8620.070
500	100	8620.071
600	100	8620.072
400	200	8620.080
500	200	8620.081
600	200	8620.082



Accessories:

- Base/plinth installation bracket, see Internet



System accessories



Baying cover

for VX base/plinth

To neatly close the gap between two bayed base/plinths and it is required to close the gap at the rear when baying three or more base/plinths.

Material:

- Plastic ABS, halogen-free

Colour:

- RAL 9005

Note:

- A baying cover is already included as standard with the supply of base/plinth corner pieces with base/plinth trim panels, front and rear.

Packs of	Model No.
10 pc(s).	8620.010
10 pc(s).	8620.011



Base/plinth adaptor

for twin castors and levelling feet

For mounting twin castors and levelling feet to the base/plinth.

Material	Packs of	Model No.
Sheet steel	4 pc(s).	8100.770
Stainless steel	4 pc(s).	8100.771



Also required:

- When fitting twin castors, side trim panels, see page 65, are required.



Levelling feet

for VX, VX IT, VX SE, PC, IW 55 – 125 mm high

To compensate for height differences with floor irregularities. Mounting thread M12.

Load capacity:

- Max. admissible load: approx. 3000 N per levelling foot

Material	Packs of	Model No.
Stainless steel	4 pc(s).	8100.780



Also required:

- For mounting on the base/plinth: Base/plinth adaptor, see page 66

HD supporting structure with levelling

with 4 feet for HD and VX25

Solid cross-sections and continuously welded seams ensure complete water-tightness. The round profile helps to avoid the common problem of collecting dirt, particularly with horizontal surfaces. The guaranteed floor clearance of the enclosures facilitates easy wet or dry cleaning. The width supports the installation of individual supporting structures underneath bayed VX25 and HD system enclosures.

Design:

- Including levelling 0 – 55 mm
- Height: 300 mm
- With horizontal grille for cable routing between the support strips, rear

Material:

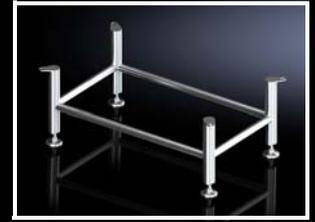
- Stainless steel tube 1.4301 (AISI 304)

Supply includes:

- Assembly parts and seals

Material	Model No.
1.4301 (AISI 304)	4000.309 ¹⁾
1.4404 (AISI 316L)	4000.409 ¹⁾

¹⁾ Please additionally give the design code
Other heights available on request. Extended delivery times.



Design code number

□	-	□	-	□	-	□	-	□
for enclosure		Enclosure width		Enclosure depth		Levelling		Base mount
1 – Compact enclosure HD		mm		mm		(0 – 55 mm)		1 – with
2 – VX25 (stainless steel/ sheet steel)						1 – with (for all 4 feet)		2 – without
						2 – without		

Example:

Supporting structure for VX, width 1000 mm, depth 800 mm, without levelling, with base mount.

2 – 1000 – 800 – 2 – 1

Condensate discharge

For reliable condensate discharge from the inside and protection against splashed water from the outside (labyrinth effect).

A hole diameter of 16 mm is required (with AX sheet steel, the holes are already provided in the base).

Material:

- Polyamide

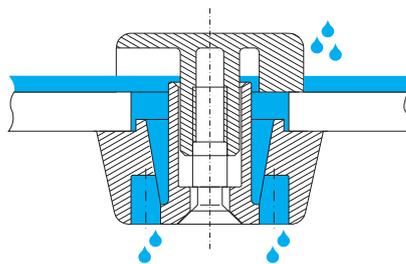
Colour:

- Similar to RAL 7035

Protection category:

- Protection from splashed water, when correctly installed at the bottom

Packs of	Model No.
6 pc(s).	2459.000



System accessories



Pressure relief stopper

Especially when enclosures are exposed to changing climatic conditions, pressure differences may cause condensation to form in sealed enclosures. The integral sealing membrane in the pressure relief stopper largely prevents such pressure differences and hence eliminates condensation; additionally, it also prevents the ingress of moisture from the outside. Installed in vertical surfaces to protect against dirt.

Technical specifications:

- Air permeability up to 120 litres/hour with a pressure difference of 70 mbar
- Connection thread M12 x 1.5
- For fitting in wall thicknesses up to 4 mm

Packs of	Model No.
5 pc(s).	2459.500

Material:

- Polyamide

Colour:

- Similar to RAL 9005

Protection category IP to IEC 60 529:

- IP X8

Protection category IP to DIN 40 040-9:

- IP 69K

Supply includes:

- Lock nut



Side panels, screw-fastened, stainless steel

for VX

- Time-saving assembly thanks to clip-in side panel holders
- Automatic potential equalisation and higher EMC protection, thanks to enclosure panel holders with earthing inserts located on the inside
- Easy positioning in the height and depth with the location aid
- One-person assembly
- Earthing bolts with large, paint-free contact surface for optimum contact

Material:

- Stainless steel 1.4301 (AISI 304), 1.5 mm

Surface finish:

- Brushed, grain size 400

Protection category IP to IEC 60 529:

- IP 55 (in conjunction with enclosures from the VX series)

Protection category NEMA:

- NEMA 12 (in conjunction with enclosures from the VX series)

Supply includes:

- Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
1800	400	2 pc(s).	8700.030
1800	500	2 pc(s).	8700.040
2000	600	2 pc(s).	8700.050



Baying connector, external

for VX

For mounting on the vertical enclosure sections from the outside.

Supply includes:

- Baying connector, external
- Baying seal
- Assembly parts

Material	Packs of	Model No.
Stainless steel 1.4301 (AISI 304)	6 pc(s).	8617.503

Note:

- 1 pack is sufficient for one baying joint

Possible alternative:

- Baying bracket, internal, see Internet
- Baying block, internal, see Internet



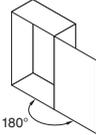
180° hinges

Supply includes:

- Assembly parts

Note:

- The protection category of the enclosure may be reduced
- Door hinge remains the same within a bayed enclosure suite

Enclosure type	Door variant	Material	Packs of	
VX25	Stainless steel door	Stainless steel/precision-cast	4 pc(s).	8618.340¹⁾

¹⁾ May be mounted without machining the door, suitable for door installations up to 900 N



Ride-up roller

for door VX

Lifts up the door when there is heavy installed equipment (e.g. cooling unit) as a closing aid. For attaching to the tubular door frame.

For	Packs of	Model No.
VX	10 pc(s).	8618.420



Perforated door strip

for AX stainless steel

For vertical mounting on the threaded bolts of the door.

For attachment of

- Support strips
- Punched section with mounting flange, 14 x 39 mm
- Door stay

Material:

- Sheet steel

Surface finish:

- Zinc-plated

For door height mm	Packs of	Model No.
760	2 pc(s).	2311.076
1000	2 pc(s).	2311.100
1200	2 pc(s).	2311.120



Accessories:

- Support strips, see page 71
- Punched section with mounting flange, 14 x 39 mm, see page 76
- Door stay, see Internet
- Screws, see Internet



System accessories



Silicone seal

for VX, AX

In exchange for a damaged PU seal. This makes it more resistant to cleaning agents and disinfectants.

Material:

- Silicone foam profile

Colour:

- White

Length m	Packs of	Model No.
25	1 pc(s).	5001.380

Assembly instruction:

- The foamed-in PU seal can be removed without leaving a residue and the surface cleaned. The self-adhesive silicone seal must be pressed into the exact position, with the top horizontal sealing strip covering the vertical strip without any gaps.



Cam lock, stainless steel

for AX, KX E-Box

With double-bit insert

Material:

- Made entirely from stainless steel 1.4404 (AISI 316L)

For	Packs of	Model No.
AX	1 pc(s).	2304.100
KX E-Box	1 pc(s).	2309.110

Accessories:

- Lock inserts, type A, see Internet

System accessories

Support strip

For attachment of

- Cable ducts
- Cable conduit holders
- Contact hazard protection covers
- Equipment installed on the door
- Cable clamping and attachment

4.5 mm diameter hole on a 25 mm DIN pitch pattern

Material:

- Sheet steel

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts



Accessories:

- Screws and self-tapping screws M5, see Internet



For VX, VX SE, AX plastic, TP, PC, IW

Installation options:

- VX, VX SE, PC, IW on the tubular door frame
- TP on perforated door strip
- In AX plastic on mounting bosses in the door

For door width mm	Distance between attachment points mm	Packs of	Model No.
400	275	20 pc(s).	4594.000
500	375	20 pc(s).	4309.000
600	475	20 pc(s).	4596.000
800	675	20 pc(s).	4598.000
900	775	20 pc(s).	4579.000
1000	875	20 pc(s).	4599.000

For AX

Installation options:

- In the AX sheet steel enclosure door with cam lock
- In the AX stainless steel enclosure door with cam lock in conjunction with a perforated door strip

For door width mm	Distance between attachment points mm	Packs of	Model No.
380	305	20 pc(s).	4599.100
400	325	20 pc(s).	4694.000
500	425	20 pc(s).	4695.000
600	525	20 pc(s).	4696.000
760	685	20 pc(s).	4599.200
800	725	20 pc(s).	4697.000



Also required:

- For installation in AX stainless steel: AX perforated door strip, stainless steel, see page 69

Sloped attachment

for VX25

For retro-fitting individual or bayed VX25 enclosures of spray-finished sheet steel or stainless steel.

Properties:

- Height front: 35 mm
- Roof projection, front: 8 mm
- Maximum possible opening at the baying point to the adjacent roof

Protection category:

- IP 55 to IEC 60 529
- Complies with NEMA 12

Supply includes:

- Assembly parts and all required seals

Design code number

- - -

Roof tilt

- 1 - 30°
(EHEDG standard)
- 2 - 45°

Enclosure width mm¹⁾

Enclosure depth mm

Assembly (viewed from the front)

- 1 - for free-standing enclosure
- 2 - for bayed end enclosure, left²⁾
- 3 - for bayed end enclosure, right²⁾
- 4 - for bayed enclosure, centre²⁾

¹⁾ Max. 1200 mm

²⁾ Each with a T-section seal and connection accessories.

Example:

Sloped attachment HD, 30° roof tilt, for VX25 free-standing enclosure with width x depth 800 x 600 mm.

- - -



System accessories



Dust guard trim

for AX, KX

To protect against deposits on the upper edge of the door and between the enclosure and the door/cover. Cut the dust guard trim to length according to the enclosure width. Drill the enclosure and fit the dust guard trim using the adhesive strips and screws.

Material:

- Plastic, UV-resistant

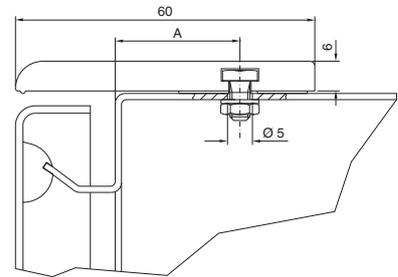
Colour:

- Similar to RAL 7024

Supply includes:

- Assembly parts

For enclosure	Length mm	A mm	Model No.
AX	1200	21.5	2426.500
KX		21	



Wall mounting bracket

for AX stainless steel, KX stainless steel, stainless steel switch housing

For the attachment of stainless steel enclosures.

Supply includes:

- Assembly parts

Note:

- For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting bracket.

Material	Wall distance mm	Packs of	Model No.
Stainless steel 1.4301 (AISI 304)	10	4 pc(s).	1594.010

System accessories

Wall mounting bracket

for AX stainless steel, KX stainless steel

For the attachment of AX and KX stainless steel enclosures.

Benefits:

- Simply suspend the wall-mounted bracket from a screw in the wall
- The four different mounting positions allow the wall mounting bracket to be tailored to local conditions on site
- If necessary, the support may be finished with a stylish cover cap

Supply includes:

- Wall mounting bracket
- Cover cap
- Assembly parts

Note:

- For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting brackets

Material	Wall distance mm	Packs of	Model No.
Stainless steel 1.4301 (AISI 304)	20	4 pc(s).	2433.010
Stainless steel 1.4404 (AISI 316L)	20	4 pc(s).	2433.510



Wall angle

for AX, KX, AX IT

For the attachment of sheet steel and stainless steel enclosures.

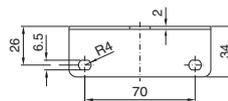
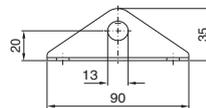
Supply includes:

- Assembly parts for mounting on the enclosure

Note:

- Additional holes required in the enclosure

Material	Colour	Packs of	Model No.
Stainless steel 1.4301 (AISI 304)	-	4 pc(s).	2583.010



System accessories



Protective roof

for AX

The sloping protective roof reliably protects the enclosure from standing moisture and other soiling from above.

Material:

- Stainless steel 1.4301 (AISI 304)

Surface finish:

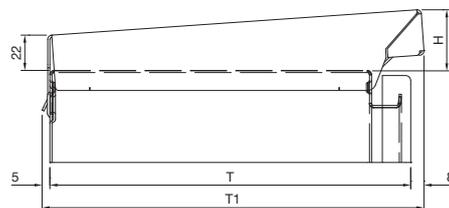
- Brushed, grain size 240

Supply includes:

- Assembly parts

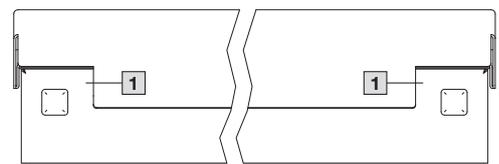
For		H mm	Model No.
Enclosure width mm	Enclosure depth T mm		
300	210	37	2361.010
380	210	37	2472.010
500	210	37	2362.010
600	210	37	2473.010
600	350	47	2476.010
760	300	43	2474.010
800	300	43	2475.010
1000	300	43	2363.010

Side view



$$T1 = \text{Enclosure depth } T + 13 \text{ mm}$$

Rear view



1 Recess for wall mounting bracket



Mounting plate infill

for VX

For a continuous mounting surface in bayed suites where the mounting plate is set forward.

Material:

- Sheet steel, 2 mm

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts

For enclosure height mm	Packs of	Model No.
1800	1 pc(s).	4590.700
2000	1 pc(s).	4591.700
2200	1 pc(s).	4592.700

Detail	Mounting position of mounting plate	Benefits
	<p>Set forward from the enclosure frame on a 25 mm pitch pattern</p> <p>Position: -25 mm -50 mm -75 mm etc.</p>	<p>The usable mounting width is enlarged by up to 25%, depending on the enclosure selection.</p>

System accessories

Rail for interior installation AX

For mounting in the enclosure, no machining required. Suitable for mounting on the side, base and roof using the locators integrated into the enclosure.

Variable with 2 rows of system punchings, creates additional mounting space e.g. for:

- Punched section with mounting flange, 14 x 39 mm
- Enclosure lights
- Door-operated switch
- Door stay
- Cable conduit holder

Benefits:

- Only one screw for attaching the rail inside the enclosure
- Including adaptor for door-operated switch
- Compatibility with VX25 accessories
- Enclosure protection category is retained (no machining required)
- Automatic potential equalisation
- May be retro-fitted even with the mounting plate in situ, suitable for installation via gland plates

Material:

- Sheet steel

Surface finish:

- Zinc-plated

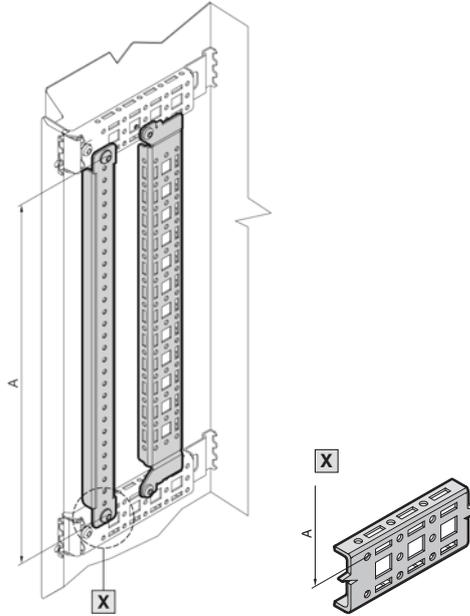


Also required:

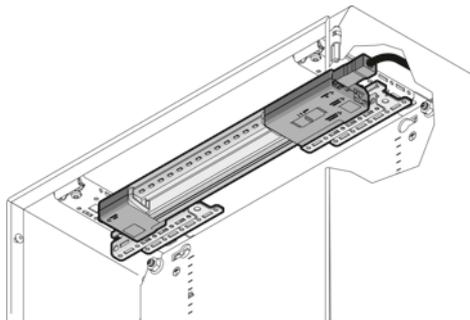
- For installing the LED system light: Mounting bracket for interior installation, see Internet

For enclosure depth mm	Packs of	Model No.
210	4 pc(s).	2393.210
250	4 pc(s).	2393.250
300	4 pc(s).	2393.300
350	4 pc(s).	2393.350
400	4 pc(s).	2393.400

Configuration examples:



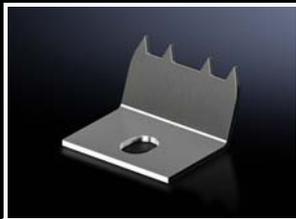
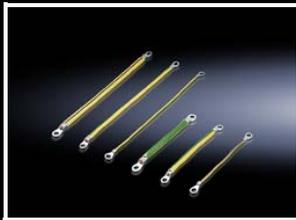
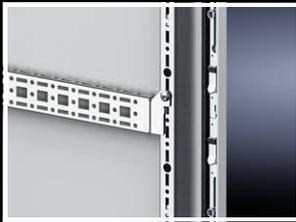
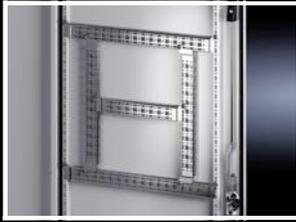
A = Rail mounting distance



Mounting of LED system light



System accessories



Punched section with mounting flange, 14 x 39 mm

for door installation, for VX, AX

Secure location and fast mounting on the tubular door frame.

For the attachment of

- Cable ducts
- Cable conduit holders
- Equipment installed on the door, etc.

Installation options:

- In VX, VX SE, PC, IW on the tubular door frame
- In AX enclosure door with 3-point lock system in the lockable door

Material:

- Sheet steel

Surface finish:

- Zinc-plated

Supply includes:

- Assembly parts

For door width mm	Distance between attachment points mm	Packs of	Model No.
400	275	4 pc(s).	8619.700
500	375	4 pc(s).	8619.710
600	475	4 pc(s).	8619.720
800	675	4 pc(s).	8619.730
900	775	4 pc(s).	8619.740
1000	875	4 pc(s).	8619.750



Also required:

- For installation in AX stainless steel: AX perforated door strip, stainless steel, see page 69



Accessories:

- Screws and self-tapping screws M5 for configuring the customer's own components on the punched section with mounting flange, see Internet

Earth straps

For configuring a reliable earthing connection with perfect contact

- With ring terminals in M6 and M8 to match the earthing screws
- Length-optimised and ready to install

Enclosure	Connection option		
	Door/cover	Enclosure	Mounting plate
KX	M6	M6	M6
AX	M8	M8	M8
VX	M8	M8	M8
KE/KEL	M8	M8	M8
TP	M6	M8	M8
VX SE	M8	M8	M8
PC	M8	M8	-

Connection	Cross-section mm ²	Length mm	Packs of	Model No.
M8 - M8	4	170	5 pc(s).	2564.000
M8 - M8	16	170	5 pc(s).	2565.000
M8 - M8	25	170	5 pc(s).	2566.000
M6 - M6	10	200	5 pc(s).	2565.100
M8 - M8	4	300	5 pc(s).	2567.000
M6 - M8	10	300	5 pc(s).	2565.110
M8 - M8	10	300	5 pc(s).	2565.120
M8 - M8	16	300	5 pc(s).	2568.000
M8 - M8	25	300	5 pc(s).	2569.000
M6 - M6	10	350	5 pc(s).	2565.050

Mounting claw for second mounting level

for terminal boxes KX, bus enclosures KX

For fixing top hat rails directly onto the rear panel of KX terminal boxes and KX bus enclosures. Creates an additional mounting level with an extra 10 mm of installation depth without having to machine the enclosure.

Packs of	Model No.
20 pc(s).	2309.100



Accessories:

- Support rails TS 35/7.5 to EN 60 715, see Internet

System accessories

Connector gland, small

For pre-assembled cables with connectors.

- For use with material thickness of up to 4 mm
- Strain relief of the pre-assembled cables can be achieved with cable ties

Material:

- Plastic

Colour:

- RAL 9005

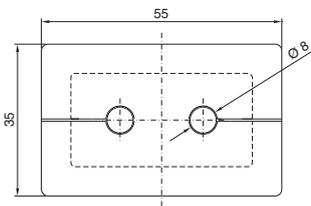
Protection category IP to IEC 60 529:

- IP 65 if installed correctly

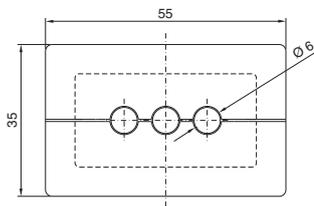
Supply includes:

- Assembly parts

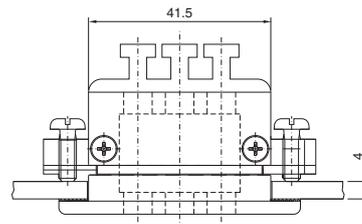
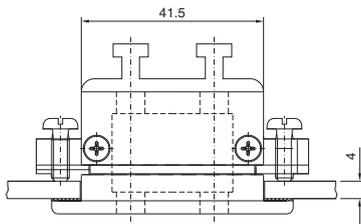
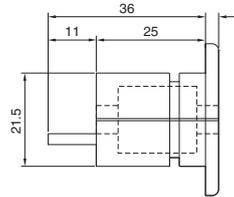
To fit	Packs of	Model No.
2 cables Ø 6 – 8 mm	1 pc(s).	2400.300
3 cables Ø 4 – 6 mm	5 pc(s).	2400.500



2400.300



2400.500



Mounting cut-out



Cooling units



- TopTherm fan-and-filter units
- Wall-mounted cooling units Blue e+
- Wall-mounted cooling units TopTherm Blue e, NEMA 4X
- Chillers Blue e+
- Air/water heat exchangers
- Enclosure heater
- Accessories

TopTherm fan-and-filter units



Air throughputs including outlet filter and protection categories Page 84 **Climate control accessories** Page 96

Fan-and-filter units with diagonal fan technology have superior pressure stability and ensure a more constant air throughput. The diagonal direction of outflow ensures more even heat dissipation from the enclosure.

Colour:

- RAL 7035
- Optionally available in RAL 9005

Supply includes:

- Complete unit ready to install, including filter mat

Note:

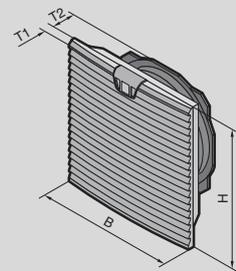
- With the fan-and-filter unit 3237.XXX, electrical connection is made via two single wires on the unit; for all other fan-and-filter units, a screwless spring terminal is used.

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet



Air throughput 20 – 55 m³/h

Model No.	Packs of	3237.100	3237.110	3237.124	3238.100	3238.110	3238.124	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	24 (DC)	
Air throughput, unimpeded airflow m ³ /h		20 / 25	20 / 25	20	55 / 66	55 / 66	55	
Rated current A		0.065 / 0.052	0.12 / 0.1	0.125	0.12 / 0.11	0.24 / 0.22	0.24	
Power consumption (W)		11 / 9	11 / 9	3	19 / 18	19 / 18	5.5	
Width (B) mm		116.5	116.5	116.5	148.5	148.5	148.5	
Height (H) mm		116.5	116.5	116.5	148.5	148.5	148.5	
Depth (T1) mm		16	16	16	16	16	16	
Max. installation depth (T2) mm		43	43	43	58.5	58.5	58.5	
Required mounting cut-out (WxH) mm		92 x 92	92 x 92	92 x 92	124 x 124	124 x 124	124 x 124	
Fan		Axial, shaded pole motor	Axial, shaded pole motor	Axial, DC motor	Axial, shaded pole motor	Axial, shaded pole motor	Axial, DC motor	
Operating temperature range		-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		38 / 43	38 / 43	38	46 / 49	46 / 49	46	
Service life of fans (L10, 40 °C) h		55000 / 60000	55000 / 60000	70000	45000 / 45000	45000 / 45000	60000	
Weight kg		0.46	0.48	0.3	0.8	0.8	0.54	

Accessories

Outlet filter	1 pc(s).	3237.200	3237.200	3237.200	3238.200	3238.200	3238.200	98
Spare filter mat		see page	97					
Fine filter mats	5 pc(s).	-	-	-	3238.055	3238.055	3238.055	97
Hose-proof hood	1 pc(s).	3237.080	3237.080	3237.080	3238.080	3238.080	3238.080	99
Blanking cover	2 pc(s).	3237.020	3237.020	3237.020	3238.020	3238.020	3238.020	
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	

TopTherm fan-and-filter units

Air throughput 105 – 180 m³/h

Model No.	Packs of	3239.100	3239.110	3239.124	3240.100	3240.110	3240.124	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	24 (DC)	
Air throughput, unimpeded airflow m ³ /h		105 / 120	105 / 120	105	180 / 160	180 / 160	180	
Rated current A		0.12 / 0.11	0.24 / 0.22	0.23	0.21 / 0.19	0.42 / 0.38	0.43	
Power consumption (W)		19 / 18	19 / 18	5.5	35 / 34	35 / 34	10	
Width (B) mm		204	204	204	255	255	255	
Height (H) mm		204	204	204	255	255	255	
Depth (T1) mm		24	24	24	25	25	25	
Max. installation depth (T2) mm		90	90	90	107	107	107	
Required mounting cut-out (WxH) mm		177 x 177	177 x 177	177 x 177	224 x 224	224 x 224	224 x 224	
Fan		Axial, shaded pole motor	Axial, shaded pole motor	Axial, DC motor	Diagonal, shaded pole motor	Diagonal, shaded pole motor	Diagonal, DC motor	
Operating temperature range		-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		46 / 49	46 / 49	46	51 / 46	51 / 46	51	
Service life of fans (L10, 40 °C) h		45000 / 45000	45000 / 45000	60000	72000 / 76000	72000 / 76000	75000	
Weight kg		1.04	1.04	0.78	2.26	2.08	1.88	
Accessories								
Outlet filter	1 pc(s).	3239.200	3239.200	3239.200	3240.200	3240.200	3240.200	98
Spare filter mat		see page	see page	see page	see page	see page	see page	97
Fine filter mats	5 pc(s).	3181.100	3181.100	3181.100	3182.100	3182.100	3182.100	97
Hose-proof hood	1 pc(s).	3239.080	3239.080	3239.080	3240.080	3240.080	3240.080	99
Blanking cover	2 pc(s).	3239.020	3239.020	3239.020	3240.020	3240.020	3240.020	
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	

Air throughput 230 – 550 m³/h

Model No.	Packs of	3241.100	3241.110	3241.124	3243.100	3243.110	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	
Air throughput, unimpeded airflow m ³ /h		230 / 250	230 / 250	230	550 / 600	550 / 600	
Rated current A		0.26 / 0.24	0.52 / 0.48	0.8	0.37 / 0.39	0.78 / 0.8	
Power consumption (W)		40 / 42	40 / 42	19	70 / 87	75 / 90	
Width (B) mm		255	255	255	323	323	
Height (H) mm		255	255	255	323	323	
Depth (T1) mm		25	25	25	25	25	
Max. installation depth (T2) mm		107	107	107	118.5	118.5	
Required mounting cut-out (WxH) mm		224 x 224	224 x 224	224 x 224	292 x 292	292 x 292	
Fan		Diagonal, shaded pole motor	Diagonal, shaded pole motor	Diagonal, DC motor	Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	
Operating temperature range		-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		54 / 56	54 / 56	54	59 / 61	59 / 61	
Service life of fans (L10, 40 °C) h		61000 / 60000	61000 / 60000	75000	65000 / 61000	61000 / 59000	
Weight kg		2.24	2.26	2.04	3.58	3.58	
Accessories							
Outlet filter	1 pc(s).	3240.200	3240.200	3240.200	3243.200	3243.200	98
Spare filter mat		see page	see page	see page	see page	see page	97
Fine filter mats	5 pc(s).	3182.100	3182.100	3182.100	3183.100	3183.100	97
Hose-proof hood	1 pc(s).	3240.080	3240.080	3240.080	3243.080	3243.080	99
Blanking cover	2 pc(s).	3240.020	3240.020	3240.020	3243.020	3243.020	
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	

TopTherm fan-and-filter units

Air throughput 700 m³/h

Model No.	Packs of	3244.100	3244.110	3244.140	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50/60 460, 3~, 60	
Air throughput, unimpeded airflow m ³ /h		700 / 770	700 / 770	700 / 770	
Rated current A		0.43 / 0.6	0.9 / 1.25	0.17 / 0.21	
Power consumption (W)		95 / 135	100 / 145	93 / 140	
Width (B) mm		323	323	323	
Height (H) mm		323	323	323	
Depth (T1) mm		25	25	25	
Max. installation depth (T2) mm		130.5	130.5	130.5	
Required mounting cut-out (WxH) mm		292 x 292	292 x 292	292 x 292	
Fan		Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	Diagonal, three-phase motor	
Operating temperature range		-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		65 / 66	65 / 66	67 / 70	
Service life of fans (L10, 40 °C) h		66000 / 64000	66000 / 62000	66000 / 62000	
Weight kg		4.3	4.3	4.1	
Accessories					
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	98
Spare filter mat		see page	see page	see page	97
Fine filter mats	5 pc(s).	3183.100	3183.100	3183.100	97
Hose-proof hood	1 pc(s).	3243.080	3243.080	3243.080	99
Blanking cover	2 pc(s).	3243.020	3243.020	3243.020	
Thermostat	1 pc(s).	3110.000	3110.000	-	100
Hygrostat	1 pc(s).	3118.000	3118.000	-	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	-	



TopTherm fan-and-filter units



Air throughputs including outlet filter and protection categories Page 84 **Climate control accessories** Page 96

Energy-efficient version of the TopTherm fan-and-filter units with diagonal fan technology. Fans 3240.500 to 3245.510 may be controlled and monitored. The fan may be activated via the control interface with tachometer signal output integrated as standard, and monitoring of the fan speed and function is supported.

Colour:

– RAL 7035

Supply includes:

– Complete unit ready to install, including filter mat

Note:

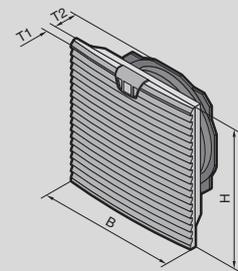
– For even more efficient operation or for monitoring the fan-and-filter units, we recommend the use of the EC speed control for EC fan-and-filter units

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet



Air throughput 55– 230 m³/h, with EC technology

Model No.	Packs of	3238.500	3239.500	3240.500	3241.500	Page
Control interface		–	–	■	■	
Rated operating voltage V, ~, Hz		200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	
Air throughput, unimpeded airflow m³/h		55 / 55	105 / 105	180 / 180	230 / 230	
Rated current A		0.045 / 0.045	0.045 / 0.045	0.12 / 0.12	0.17 / 0.17	
Power consumption (W)		6.1 / 6.1	6.1 / 6.1	11 / 11	16 / 16	
Width (B) mm		148.5	204	255	255	
Height (H) mm		148.5	204	255	255	
Depth (T1) mm		16	24	25	25	
Max. installation depth (T2) mm		58.5	90	107	107	
Required mounting cut-out (WxH) mm		124 x 124	177 x 177	224 x 224	224 x 224	
Fan		Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	
Operating temperature range		-20 °C...+55 °C	-20 °C...+55 °C	-25 °C...+55 °C	-25 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-25 °C...+70 °C	-25 °C...+70 °C	
Noise level dB(A)		49 / 49	53 / 53	47 / 47	52 / 52	
Service life of fans (L10, 40 °C) h		62500	62500	71000	64000	
Weight kg		0.62	0.91	2.01	1.98	

Accessories

Outlet filter	1 pc(s).	3238.200	3239.200	3240.200	3240.200	98
Spare filter mat		see page	see page	see page	see page	97
Fine filter mats	5 pc(s).	3238.055	3181.100	3182.100	3182.100	97
Hose-proof hood	1 pc(s).	3238.080	3239.080	3240.080	3240.080	99
Blanking cover	2 pc(s).	3238.020	3239.020	3240.020	3240.020	
Speed control, EC control unit for EC fan-and-filter units	1 pc(s).	–	–	3235.440	3235.440	101
Speed control, EC sensor for speed control	1 pc(s).	–	–	3235.450	3235.450	
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	

TopTherm fan-and-filter units

Air throughput 550– 900 m³/h, with EC technology

Model No.	Packs of	3243.500	3244.500	3245.500	3245.510	Page
Control interface		■	■	■	■	
Rated operating voltage V, ~, Hz		200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	100 - 130, 1~, 50/60	
Air throughput, unimpeded airflow m ³ /h		550 / 550	700 / 700	900 / 900	900 / 900	
Rated current A		0.5 / 0.5	0.7 / 0.7	1.33 / 1.33	2.1 / 2.1	
Power consumption (W)		51 / 51	80 / 80	165 / 165	165 / 165	
Width (B) mm		323	323	323	323	
Height (H) mm		323	323	323	323	
Depth (T1) mm		25	25	25	25	
Max. installation depth (T2) mm		118.5	130.5	130.5	130.5	
Required mounting cut-out (WxH) mm		292 x 292	292 x 292	292 x 292	292 x 292	
Fan		Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	
Operating temperature range		-25 °C...+55 °C	-25 °C...+55 °C	-25 °C...+55 °C	-25 °C...+55 °C	
Storage temperature range		-25 °C...+70 °C	-25 °C...+70 °C	-25 °C...+70 °C	-25 °C...+70 °C	
Noise level dB(A)		63 / 63	64 / 64	72 / 72	72 / 72	
Service life of fans (L10, 40 °C) h		65000	67000	59000	59000	
Weight kg		2.92	2.7	3.46	3.76	
Accessories						
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	3243.200	98
Spare filter mat		see page	see page	see page	see page	97
Fine filter mats	5 pc(s).	3183.100	3183.100	3183.100	3183.100	97
Hose-proof hood	1 pc(s).	3243.080	3243.080	3245.080	3245.080	99
Blanking cover	2 pc(s).	3243.020	3243.020	3243.020	3243.020	
Speed control, EC control unit for EC fan-and-filter units	1 pc(s).	3235.440	3235.440	3235.440	3235.440	101
Speed control, EC sensor for speed control	1 pc(s).	3235.450	3235.450	3235.450	3235.450	
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	

TopTherm fan-and-filter units

Air throughput and protection category

TopTherm fan-and-filter units

Model No.	Air throughput m ³ /h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category			
	Unimpeded air flow	With outlet filter including filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood	
3237.100	20/25	1 x 3237.200	-	-	IP 54/ Type 12	-	IP 56/ Type 3, 3R	
3237.110		15/18	-	-				
3237.124		20	-	-				
3238.100	55/66	1 x 3238.200	2 x 3238.200	-		IP 54/ Type 12	-	-
3238.110		43/50	46/56					
3238.124	55	1 x 3238.200	2 x 3238.200	-		IP 54/ Type 12	IP 56/ Type 3, 3R Type 4, 4X	
3239.100	105/120	1 x 3239.200	2 x 3239.200	1 x 3240.200				
3239.110		87/100	93/108	98/111				
3239.124	105	1 x 3239.200	2 x 3239.200	1 x 3240.200				
3240.100	180/160	1 x 3240.200	2 x 3240.200	1 x 3243.200				
3240.110		138/121	165/140	165/140				
3240.124	180	1 x 3240.200	2 x 3240.200	1 x 3243.200				
3241.100	230/250	1 x 3240.200	2 x 3240.200	1 x 3243.200				
3241.110		183/205	203/220	203/230				
3241.124	230	1 x 3240.200	2 x 3240.200	1 x 3243.200				
3243.100	550/600	1 x 3243.200	2 x 3243.200	-				
3243.110		465/510	508/548	-				
3244.100	700/770	1 x 3243.200	2 x 3243.200	-				
3244.110		544/587	630/690	-				
3244.140		-	-	-				

TopTherm fan-and-filter units with EC technology

Model No.	Air throughput m ³ /h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With outlet filter including filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3238.500	55	1 x 3238.200	2 x 3238.200	-	IP 54/ Type 12	IP 54/ Type 12	IP 56/ Type 3, 3R Type 4, 4X
3239.500	105	1 x 3239.200	2 x 3239.200	1 x 3240.200			
3240.500	180	1 x 3240.200	2 x 3240.200	1 x 3243.200			
3241.500	230	1 x 3240.200	2 x 3240.200	1 x 3243.200			
3243.500	550	1 x 3243.200	2 x 3243.200	-			
3244.500	700	1 x 3243.200	2 x 3243.200	-			
3245.500	900	1 x 3243.200	2 x 3243.200	-	IP 51	IP 52	IP 56/ Type 1, 12 Type 3, 3R
3245.510	900	1 x 3243.200	2 x 3243.200	-			

Wall-mounted cooling units Blue e+



Climate control accessories Page 96 IoT Interface Page 102

Benefits:

- Average 75% energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation with touch display and intelligent interfaces

Temperature control:

- e+ controller (factory setting +35 °C)

Protection category IP to IEC 60 529:

- Internal circuit IP 55

Supply includes:

- Nano-coated condenser
- Integral electric condensate evaporation
- Assembly parts
- Fully wired ready for connection (plug-in terminal strip)

Optional:

- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Note:

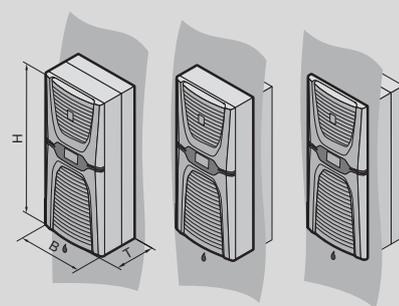
- Please observe the mounting instructions
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet



Wall-mounted cooling unit Blue e+

Output class 1600 W

Model No.		Packs of	3185.530	3185.830	Page
Material	Stainless steel 1.4301 (AISI 304)		■	-	
	Sheet steel		-	■	
Colour	RAL 7035		-	■	
	RAL 9007		■	-	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			1.6	1.6	
Total cooling output 50/60 Hz L35 L35 kW			1.6 / 1.6	1.6 / 1.6	
Total cooling output 50/60 Hz L35 L50 kW			1.2 / 1.2	1.2 / 1.2	
Rated operating voltage V, -, Hz			110 - 240, 1-, 50/60 380 - 480, 3-, 50/60	110 - 240, 1-, 50/60 380 - 480, 3-, 50/60	
Width (B) mm			400	400	
Height (H) mm			950	950	
Depth (T) mm			310	310	
Rated power input kW			0.62	0.62	
Power consumption P _{el} 50/60 Hz L35 L35 kW			0.54 / 0.54	0.54 / 0.54	
Operating temperature range			-20 °C...+60 °C	-20 °C...+60 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			3.1 / 3.1	3.1 / 3.1	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			6.4	6.4	
Refrigerant g			R134a, 750	R134a, 750	
Weight kg			36.3	37.1	

Accessories					
IoT interface	1 pc(s).		3124.300	3124.300	102
Door-operated switch	1 pc(s).		4127.010	4127.010	
Filter mat	3 pc(s).		3285.800	3285.800	96
Metal filter	1 pc(s).		3285.810	3285.810	96
Temperature sensor	1 pc(s).		3124.400	3124.400	
Condensate hose	1 pc(s).		3301.612	3301.612	
Eyebolts	4 pc(s).		4568.000	4568.000	
RiDiag	1 pc(s).		3159.300	3159.300	

Wall-mounted cooling units Blue e+



Climate control accessories Page 96 IoT Interface Page 102

Benefits:

- Average 75% energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation with touch display and intelligent interfaces

Temperature control:

- e+ controller (factory setting +35 °C)

Protection category IP to IEC 60 529:

- Internal circuit IP 55

Supply includes:

- Nano-coated condenser
- Integral electric condensate evaporation
- Assembly parts
- Fully wired ready for connection (plug-in terminal strip)

Optional:

- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Note:

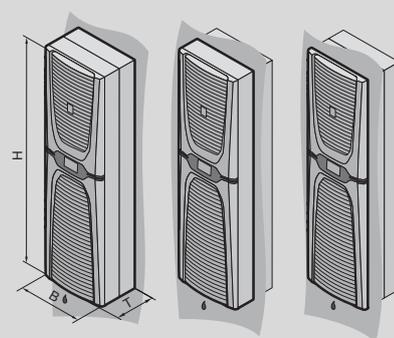
- Please observe the mounting instructions
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet



Wall-mounted cooling unit Blue e+

Output class 2000 – 2600 W

Model No.		Packs of	3186.630	3186.930	3187.630	3187.930	Page
Material	Stainless steel 1.4301 (AISI 304)		■	–	■	–	
	Sheet steel		–	■	–	■	
Colour	RAL 7035		–	■	–	■	
	RAL 9007		■	–	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			2	2	2.6	2.6	
Total cooling output 50/60 Hz L35 L35 kW			2 / 2	2 / 2	2.6 / 2.6	2.6 / 2.6	
Total cooling output 50/60 Hz L35 L50 kW			1.29 / 1.29	1.29 / 1.29	1.82 / 1.82	1.82 / 1.82	
Rated operating voltage V, ~, Hz			110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Width (B) mm			450	450	450	450	
Height (H) mm			1600	1600	1600	1600	
Depth (T) mm			294	294	294	294	
Rated power input kW			0.73	0.73	1.05	1.05	
Power consumption P _{el} 50/60 Hz L35 L35 kW			0.57 / 0.57	0.57 / 0.57	0.99 / 0.99	0.99 / 0.99	
Operating temperature range			-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			3.5 / 3.5	3.5 / 3.5	2.63 / 2.63	2.63 / 2.63	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			8.1	8.1	6.2	6.2	
Refrigerant g			R134a, 1150	R134a, 1150	R134a, 1150	R134a, 1150	
Note on Model No.			–	–	–	–	
Weight kg			54.8	55.2	54.8	55.2	

Accessories

IoT interface	1 pc(s).	3124.300	3124.300	3124.300	3124.300	102
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	
Filter mat	3 pc(s).	3285.900	3285.900	3285.900	3285.900	96
Metal filter	1 pc(s).	3285.910	3285.910	3285.910	3285.910	96
Temperature sensor	1 pc(s).	3124.400	3124.400	3124.400	3124.400	
Condensate hose	1 pc(s).	3301.612	3301.612	3301.612	3301.612	
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	4568.000	
RiDiag	1 pc(s).	3159.300	3159.300	3159.300	3159.300	

Output class 4200 – 5800 W

Model No.		Packs of	3188.640	3188.940	3189.640	3189.940	Page
Material	Stainless steel 1.4301 (AISI 304)		■	–	■	–	
	Sheet steel		–	■	–	■	
Colour	RAL 7035		–	■	–	■	
	RAL 9007		■	–	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			4.2	4.2	5.8	5.8	
Total cooling output 50/60 Hz L35 L35 kW			4.2 / 4.2	4.2 / 4.2	5.8 / 5.8	5.8 / 5.8	
Total cooling output 50/60 Hz L35 L50 kW			3.02 / 3.02	3.02 / 3.02	4.2 / 4.2	4.2 / 4.2	
Rated operating voltage V, ~, Hz			380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	
Width (B) mm			450	450	450	450	
Height (H) mm			1600	1600	1600	1600	
Depth (T) mm			393	393	393	393	
Rated power input kW			1.3	1.3	2.2	2.2	
Power consumption P _{el} 50/60 Hz L35 L35 kW			1.21 / 1.21	1.21 / 1.21	2.2 / 2.2	2.2 / 2.2	
Operating temperature range			-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			3.46 / 3.46	3.46 / 3.46	2.64 / 2.64	2.64 / 2.64	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			8.1	8.1	6.2	6.2	
Refrigerant g			R134a, 1750	R134a, 1750	R134a, 1750	R134a, 1750	
Note on Model No.			Full installation not possible				
Weight kg			71.2	72.4	71.2	72.4	

Accessories

IoT interface	1 pc(s).	3124.300	3124.300	3124.300	3124.300	102
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	
Filter mat	3 pc(s).	3285.900	3285.900	3285.900	3285.900	96
Metal filter	1 pc(s).	3285.910	3285.910	3285.910	3285.910	96
Temperature sensor	1 pc(s).	3124.400	3124.400	3124.400	3124.400	
Condensate hose	1 pc(s).	3301.612	3301.612	3301.612	3301.612	
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	4568.000	
RiDiag	1 pc(s).	3159.300	3159.300	3159.300	3159.300	

TopTherm wall-mounted cooling units Blue e, NEMA 4X



Climate control accessories Page 96

Energy-efficient Blue e wall-mounted cooling units with e-Comfort controller integrated as standard, RiNano coating on the condenser and electrical condensate evaporation. Protection category NEMA 4X.

Benefits:

- May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:

- e-Comfort controller (factory setting +35 °C)

Protection category IP to IEC 60 529:

- External circuit IP 34
- Internal circuit IP 55

Protection category NEMA:

- NEMA 4X

Supply includes:

- Nano-coated condenser
 - Fully wired ready for connection (plug-in terminal strip)
 - Drilling template
 - Assembly parts
- Please note the product-specific scope of supply.

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet

Output class 500 – 1100 W

Model No.		Packs of	3303.504	3303.514	3304.514	3304.504	Page
Material	Stainless steel 1.4404 (AISI 316L)		■	■	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			0.55	–	1	1.1	
Total cooling output 50/60 Hz L35 L35 kW			0.55 / 0.66	0.66	1 / 1.25	1.1 / 1.25	
Total cooling output 50/60 Hz L35 L50 kW			0.33 / 0.4	0.4	0.81 / 1.1	0.91 / 0.9	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	115, 1~, 50/60	230, 1~, 50/60	
Width mm			285	285	405	405	
Height mm			620	620	1020	1020	
Depth mm			298	298	358	358	
Rated max. current A			2.6 / 2.6	5.7	8 / 8.8	3.9 / 4.3	
Start-up current A			5.1 / 6.4	11.5	26 / 28	12 / 14	
Power consumption P _{el} 50/60 Hz L35 L35 kW			0.39 / 0.41	0.5	0.67 / 0.75	0.64 / 0.68	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.4	1.31	1.83 / 1.84	1.83 / 1.84	
Refrigerant g			R134a, 170	R134a, 170	R134a, 325	R134a, 325	
Weight kg			25.0	25.0	54.0	49.0	
Product-specific scope of supply							
Integral electric condensate evaporation			–	–	■	■	
Accessories							
IoT interface	1 pc(s).		3124.300	3124.300	3124.300	3124.300	102
Blue e IoT adaptor	1 pc(s).		3124.310	3124.310	3124.310	3124.310	
Door-operated switch	1 pc(s).		4127.010	4127.010	4127.010	4127.010	
Master-slave cable	1 pc(s).		3124.100	3124.100	3124.100	3124.100	
Air diverter	1 pc(s).		–	–	3213.310	3213.310	
RiDiag	1 pc(s).		3159.100	3159.100	3159.100	3159.100	

TopTherm wall-mounted cooling units Blue e, NEMA 4X

Output class 1100 – 1600 W

Model No.		Packs of	3304.544	3305.504	3305.514	Page
Material	Stainless steel 1.4404 (AISI 316L)		■	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			1.1	1.6	1.6	
Total cooling output 50/60 Hz L35 L35 kW			1.1 / 1.26	1.6 / 1.76	1.6 / 1.76	
Total cooling output 50/60 Hz L35 L50 kW			0.98 / 1.09	1.25 / 1.37	1.25 / 1.37	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	230, 1~, 50/60	115, 1~, 50/60	
Width mm			405	405	405	
Height mm			1020	1020	1020	
Depth mm			358	358	358	
Rated max. current A			2.2 / 2.1	5.5 / 5.8	11.5 / 12.5	
Start-up current A			11.5 / 12.7	12 / 14	26 / 28	
Power consumption P _{el} 50/60 Hz L35 L35 kW			0.64 / 0.79	0.87 / 0.98	0.87 / 0.98	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.83 / 1.56	1.83 / 1.79	1.83 / 1.79	
Refrigerant g			R134a, 325	R134a, 500	R134a, 500	
Weight kg			50.0	51.0	46.0	
Product-specific scope of supply						
Integral electric condensate evaporation			■	■	■	
Accessories						
IoT interface	1 pc(s).		3124.300	3124.300	3124.300	102
Blue e IoT adaptor	1 pc(s).		3124.310	3124.310	3124.310	
Door-operated switch	1 pc(s).		4127.010	4127.010	4127.010	
Master-slave cable	1 pc(s).		3124.100	3124.100	3124.100	
Air diverter	1 pc(s).		3213.310	3213.310	3213.310	
RiDiag	1 pc(s).		3159.100	3159.100	3159.100	



Climate control accessories Page 96 IoT Interface Page 102

Benefits:

- Blue e+ chillers ensure centralised and efficient cooling of liquid media with a high level of temperature accuracy and innovative DC inverter technology
- Suitable for international use thanks to its unique multi-voltage capability (without rewiring) and high operating limits
- Maximum reliability thanks to integral overflow valve and monitoring sensors
- Intuitive operation with touch display and intelligent interfaces
- Compact and modular layout ensures minimum footprint
- Pumps with highly efficient IE3 motors

Temperature control:

- e+ controller (factory setting +20 °C)

Colour:

- Textured RAL 7035

Protection category IP to IEC 60 529:

- IP 24

Supply includes:

- Complete unit ready for connection (plug-in terminal strip)
- Multi-lingual documentation

Optional:

- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet

Rittal – The System.



IoT interface

See page 102

Chillers Blue e+

Output class 2500 – 5500 W

Model No.	Packs of	3320.200	3334.300	3334.400	Page
Total cooling output at T_w = 18 °C/T_l = 35 °C to DIN EN 14511 kW					
		2.5 / 2.4	4 / 3.9	5.5 / 5.4	
Power consumption P _{el} 50/60 Hz kW		1.38 / 1.57	2.49 / 2.72	2.49 / 2.72	
Rated operating voltage V, ~, Hz		380 - 415, 3~, 50 440 - 480, 3~, 60	380 - 415, 3~, 50 440 - 480, 3~, 60	380 - 415, 3~, 50 440 - 480, 3~, 60	
Width mm		450	450	450	
Height mm		820	820	1000	
Depth mm		710	710	710	
Rated max. current A		2.17 / 1.95	3.95 / 3.47	3.95 / 3.47	
Operating temperature range		-5 °C...+50 °C	-5 °C...+50 °C	-5 °C...+50 °C	
Refrigerant g		R134a, 460	R134a, 760	R134a, 930	
Water connection		¾" internal thread		■	
Pump pressure bar		2.4	2.9	2.9	
Volumetric flow (cooling medium) l/min		7 / 25	15 / 30	15 / 30	
Temperature hysteresis		± 0.5 K	± 0.5 K	± 0.5 K	
Temperature of liquid		+5 °C...+35 °C	+5 °C...+35 °C	+5 °C...+35 °C	
Water circuit version		hermetically open	hermetically open	hermetically open	
Tank		Plastic PE	Plastic PE	Plastic PE	
Tank capacity l		12	12	12	
Weight as delivered kg		84.0	90.0	96.0	

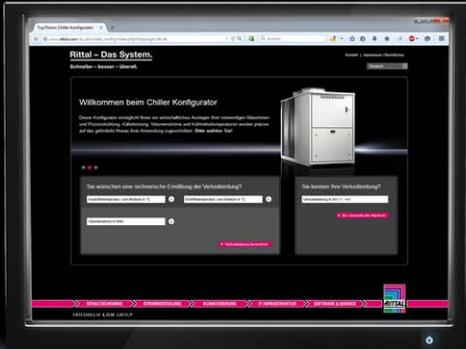
Also required

Cooling medium (ready-mixed)		see Internet	see Internet	see Internet	
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Accessories

Filter mat for cooling units, air/air heat exchangers and chillers	3 pc(s).	3285.920	3285.920	3285.900	96
Filter mat for Blue e+ chillers (inverter housings)	3 pc(s).	3285.940	3285.940	3285.940	96
Metal filter	1 pc(s).	3285.930	3285.930	3285.910	96
IoT interface	1 pc(s).	3124.300	3124.300	3124.300	102
RiDiag	1 pc(s).	3159.300	3159.300	3159.300	
Temperature sensor	1 pc(s).	3124.400	3124.400	3124.400	
Cross member	2 pc(s).	8601.680	8601.680	8601.680	
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	
Twin castors	1 pc(s).	6148.000	6148.000	6148.000	
Flow regulator valve		see Internet	see Internet	see Internet	

Rittal – The System.



Chiller configurator

Configure online at www.rittal.com/configurators

Air/water heat exchangers



Climate control accessories Page 96 Chillers Page 91 Hygienic Design HD Page 29

Air/water heat exchanger for hygienically sensitive production zones in the food and consumables industry – the optimum addition to the Rittal Hygienic Design range. The cleaning-friendly design reduces the risk of contamination and ensures food safety.

Benefits:

- Easy-to-clean, hygienic design
- A roof tilt of 30° prevents objects from being deposited on it, and allows liquids to run off quickly.
- All-round external, replaceable silicone seal prevents the accumulation of dirt between the enclosure and the air/water heat exchanger.

Material:

- Enclosures: Stainless steel 1.4301 (AISI 304)

Surface finish:

- Enclosure: Brushed, grain 400, peak-to-valley height < 0.8 µm

Protection category IP to IEC 60 529:

- IP 56/59

Protection category NEMA:

- NEMA 4X

Cooling medium:

- Water (see Internet for specifications)

Supply includes:

- Fully wired ready for connection
- Drilling template
- Sealing and assembly parts

Note:

- To achieve a protection category of IP 66/69 to IEC 60 529, the ingress of leakage air through the condensate discharge opening must be completely prevented.

Approvals:

Available on the Internet

Performance diagrams:

Available on the Internet

Output class 600 – 1200 W, wall-mounted HD

Model No.		Packs of	3214.700	3215.700
Temperature control	Thermostat-controlled magnetic valve		■	■
Total cooling output L35 W10, 200 l/h kW			0.6	1
Total cooling output L35 W10, 400 l/h kW			0.65	1.2
Power consumption P _{el} 50/60 Hz W			33 / 34	77 / 104
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60
Width mm			220	215
Height mm			526	982
Depth mm			100	100
Rated max. current A			0.16 / 0.14	0.38 / 0.47
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C
Setting range			+20 °C...+60 °C	+20 °C...+60 °C
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C
Water connection	G 3/8" external thread		■	■
Permissible operating pressure (p) bar			1 - 10	1 - 10
Air throughput of fans (unimpeded air flow), internal circuit 50/ 60 Hz m³/h			280 / 310	680 / 735
Weight as delivered kg			6.0	14.0
Accessories				
Toroidal transformer			see Internet	see Internet
Cooling medium (ready-mixed)			see Internet	see Internet

Enclosure heaters



Climate control accessories Page 96

Enclosure heaters to regulate relative humidity, prevent temperatures from dropping below the dew point and stop condensation forming inside the enclosure. This prevents consequential damage associated with corrosion or electrical short-circuits.

Material:

- Plastic

Protection category IP to IEC 60 529:

- IP 20

Protection class:

- II (all-insulated)

Supply includes:

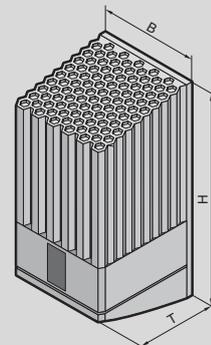
- PTC heater with fan
- Assembly parts

Note:

- A thermostat is recommended for precise temperature control inside the enclosure.
- In order to prevent condensation on assemblies, a hygrostat is recommended to regulate heating
- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters.

Approvals:

Available on the Internet



Continuous thermal output 235 – 800 W, with fan

Model No.	Packs of	3105.410	3105.380	3105.420	3105.390	3105.430	3105.400	Page
Width (B) mm		103	103	103	103	103	103	
Height (H) mm		200	200	200	200	200	200	
Depth (T) mm		103	103	103	103	103	103	
Continuous thermal output at T_u = 10 °C 50/60 Hz W		235 / 250	250 / 265	355 / 400	400 / 415	710 / 800	800 / 870	
Rated operating voltage V, ~, Hz		115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	
Accessories								
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	



Climate control accessories Page 96

Enclosure heaters to regulate relative humidity, prevent temperatures from dropping below the dew point and stop condensation forming inside the enclosure. This prevents consequential damage associated with corrosion or electrical short-circuits.

Material:

- Aluminium, anodised

Protection category IP to IEC 60 529:

- IP 20

Protection class:

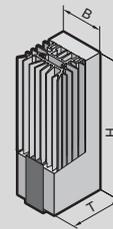
- II (all-insulated)

Supply includes:

- PTC heater
- Quick-connection terminal
- Assembly parts

Note:

- A thermostat is recommended for precise temperature control inside the enclosure.
- In order to prevent condensation on assemblies, a hygrostat is recommended to regulate heating
- In larger enclosures, even heat distribution is best achieved by installing several low-output heaters.



Approvals:

Available on the Internet

Continuous thermal output 10 – 150 W, without fan

Model No.	Packs of	3105.310	3105.320	3105.330	3105.340	3105.350	3105.360	3105.370	Page
Width (B) mm		45	45	64	64	64	90	90	
Height (H) mm		120	120	155	155	230	165	180	
Depth (T) mm		46	46	56	56	56	75	75	
Continuous thermal output at T_u = 10 °C W		8 - 10	18 - 20	23 - 30	49 - 50	63 - 75	86 - 100	130 - 150	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	
Accessories									
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	100
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	100
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	
Bottom-mounted adaptor	1 pc(s).	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	

Climate control accessories

Filter technology



Filter mat

for cooling units, air/air heat exchangers and chillers

Rittal cooling units are low-maintenance and are supplied without filter mats. Filter mats may be used for extreme conditions.

Benefits:

- Temperature-resistant from -40 °C...+80 °C

Material:

- Open-celled polyurethane foamed plastic

To fit Model No.	for cooling units	for chillers	W x H x D mm	Packs of	Model No.
3320.200/3334.300	–	■	320 x 599 x 8	3 pc(s).	3285.920
3185.830/3185.530	■	–	360 x 297 x 10	3 pc(s).	3285.800
3186.930/3187.930/ 3188.940/3189.940/ 3186.630/3187.630/ 3188.640/3189.640/ 3334.400	■	■	390 x 397 x 10	3 pc(s).	3285.900



Filter mat

for Blue e+ chillers (inverter housings)

Flat-pleated filter for Blue e+ chillers made from polyester with all-round frame and V brackets on the end face.

Material:

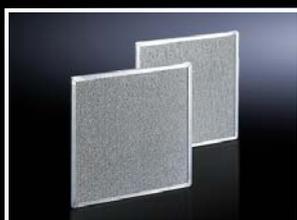
- Polyester

Filter class to DIN EN 779:

- G3

For Blue e+ chillers

To fit Model No.	W x H x D mm	Packs of	Model No.
3320.200/ 3334.300/ 3334.400	131 x 113 x 13	3 pc(s).	3285.940



Metal filter

Particularly when cooling units are used in dusty and oily environments, it is advisable to use washable metal filters. If air or steam condenses on the metal surfaces, any particles that may be present will adhere to the metal and are easily washed out with water or grease-dissolving detergents.

Material:

- Aluminium

To fit Model No.	for cooling units	for chillers	W x H x D mm	Packs of	Model No.
3185.830/3185.530	■	–	320 x 280 x 10	1 pc(s).	3285.810
3320.200/3334.300	–	■	295 x 599 x 15	1 pc(s).	3285.930
3186.930/3187.930/ 3188.940/3189.940/ 3186.630/3187.630/ 3188.640/3189.640/ 3334.400	■	■	380 x 358 x 10	1 pc(s).	3285.910

Spare filter mat

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100 °C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Note:

- Performance data, protection category and device approvals are only guaranteed when used in conjunction with original Rittal filter mats

For fan-and-filter units

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	Model No.
3237....	Chemical fibres	89 x 89 x 10	G2	5 pc(s).	3321.700
3237....	Chemical fibres	89 x 89 x 10	G2	50 pc(s).	3321.705
3238....	Chemical fibres	120 x 120 x 12	G2	5 pc(s).	3322.700
3238....	Chemical fibres	120 x 120 x 12	G2	50 pc(s).	3322.705
3239....	Chemical fibres	173 x 173 x 17	G3	5 pc(s).	3171.100
3239....	Chemical fibres	173 x 173 x 17	G3	50 pc(s).	3171.105
3240..../3241....	Chemical fibres	221 x 221 x 17	G3	5 pc(s).	3172.100
3240..../3241....	Chemical fibres	221 x 221 x 17	G3	50 pc(s).	3172.105
3243..../3244..../3245....	Chemical fibres	289 x 289 x 17	G3	5 pc(s).	3173.100
3243..../3244..../3245....	Chemical fibres	289 x 289 x 17	G3	50 pc(s).	3173.105

Fine filter mat

for fan-and-filter units

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100 °C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust with a particle size of up to 1 µm.

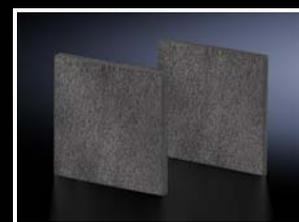
Material:

- Chemical fibres

Note:

- Performance data, protection category and device approvals are only guaranteed when used in conjunction with original Rittal filter mats

To fit Model No.	W x H x D mm	Filter class to DIN EN 779	Packs of	Model No.
3238....	120 x 120 x 12	F5/M5	5 pc(s).	3238.055
3239....	173 x 173 x 12	F5/M5	5 pc(s).	3181.100
3240..../3241....	221 x 221 x 12	F5/M5	5 pc(s).	3182.100
3243..../3244..../3245....	289 x 289 x 12	F5/M5	5 pc(s).	3183.100



Climate control accessories

Filter technology



Outlet filter

Standard

For ventilation by convection, an outlet filter can be fitted in both the upper and lower sections of the enclosure.

Material:

- ABS

Colour:

- RAL 7035
- Optionally available in RAL 9005

Protection category IP to IEC 60 529:

- IP 54 including filter mat
- IP 55 with standard filter and additional fine filter
- IP 56 with standard filter and hose-proof hood

Protection category NEMA:

- NEMA 12

Supply includes:

- Outlet filter
- Filter mat



Accessories:

- Spare filter mat, see page 97
- Fine filter mat, see page 97
- Hose-proof hood, see page 99
- Blanking cover for fan-and-filter units/outlet filters, see Internet

W x H x D mm	Required cut-out, width mm	Required cut-out, height mm	Packs of	Model No.
116.5 x 116.5 x 16	92	92	1 pc(s).	3237.200
148.5 x 148.5 x 24	124	124	1 pc(s).	3238.200
204 x 204 x 24	177	177	1 pc(s).	3239.200
255 x 255 x 25	224	224	1 pc(s).	3240.200
323 x 323 x 25	292	292	1 pc(s).	3243.200

Hose-proof hood

to increase the protection category

For fan-and-filter units/outlet filters. Easy cleaning thanks to exterior silicone coating approved for use with foodstuffs.

Material:

- Stainless steel
- Silicone

Protection category IP to IEC 60 529:

- IP 56 when fitted over fan-and-filter unit/outlet filter with filter mat

To fit Model No.	W x H x D mm	Protection category	Packs of	Model No.
3237....	150 x 230 x 40	NEMA 1 NEMA 12 NEMA 3 NEMA 3R	1 pc(s).	3237.080
3238....	176 x 245 x 55	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	3238.080
3239....	233 x 330 x 55	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	3239.080
3240..../3241....	282 x 390 x 85	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	3240.080
3243..../3244....	350 x 480 x 110	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	3243.080
3245....	350 x 480 x 160	NEMA 1 NEMA 12 NEMA 3 NEMA 3R	1 pc(s).	3245.080



Enclosure internal fan

To prevent hot-spots and support the air routing of active enclosure climate control components. Adjustable in two axes. Attached to the frame section. Several fans may be cascaded using the quick-release clamping strip.

Supply includes:

- Complete unit with axial fan ready for connection
- Snap-on pivot device
- Assembly parts

Air throughput (unimpeded air flow) m³/h	Rated operating voltage V, ~, Hz	Power consumption W	Rated current A	Packs of	Model No.
160	230, 1~, 50/60	19 / 18	0.12 / 0.11	1 pc(s).	3108.100
160	115, 1~, 50/60	19 / 18	0.24 / 0.23	1 pc(s).	3108.115
160	24 (DC)	3.5	0.15	1 pc(s).	3108.024



Climate control accessories

Control/regulation



Thermostat

Enclosure internal thermostat

Particularly suitable for controlling fans, heaters and heat exchangers, this thermostat can also be used as a signal generator for monitoring the enclosure internal temperature.

Benefits:

- Time-saving connection technique using a terminal strip with a screw connection from the outside
- Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the enclosure section or on the mounting plate using the supplied adaptor

Technical specifications:

- Bi-metal controller as a temperature-sensitive element with thermal feedback
- Contact population: Single-pole change-over contact as a quick-break contact
- Permissible contact load:
Category 5 – 3 (heating) AC 10 (4) A (inductive load at $\cos \phi = 0.6$)/category 5 – 4 (cooling):
AC 5 (4) A (inductive load at $\cos \phi = 0.6$)/
DC = max. 30 W
- Switching difference: approx. $1 \text{ K} \pm 0.8 \text{ K}$

Colour:

- RAL 7035



Accessories:

- Bottom-mounted adaptor 3110.200, see Internet
- Mounting plate 7526.964, see Internet

W x H x D mm	Rated operating voltage V, ~	Setting range	Packs of	Model No.
71 x 71 x 33.5	24 - 230, 1~ 24 - 60 (DC)	+5 °C...+60 °C	1 pc(s).	3110.000



Hygrostat

Activates the heater and/or fan when a preset relative humidity inside the enclosure is exceeded. This raises the relative humidity above the dew point and prevents condensation on assemblies and electronic components.

Benefits:

- Time-saving connection technique using a terminal strip with a screw connection from the outside.
- Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the enclosure section or on the mounting plate using the supplied adaptor.

Technical specifications:

- Contact population: Single-pole change-over contact as a quick-break contact
- Permissible contact load: AC ~ 5 (0.2) A (inductive load at $\cos \phi = 0.6$)/DC = max. 20 W
- Setting range: 50 – 100% relative humidity
- Switching difference: approx. 4%

Colour:

- RAL 7035

W x H x D mm	Rated operating voltage V, ~	Packs of	Model No.
71 x 71 x 33.5	24 - 250, 1~ 24 - 75 (DC)	1 pc(s).	3118.000



Accessories:

- Bottom-mounted adaptor 3110.200, see Internet
- Mounting plate 7526.964, see Internet

EC speed control

Control unit for EC fan

Temperature-dependent speed control for EC fans to reduce noise and save energy. The function of the fan can also be monitored.

Functions:

- Activation and monitoring of up to 4 EC fan-and-filter units
- For mounting on a 35 mm support rail DIN EN 50 022
- External temperature sensor to record the actual temperature
- Status LED to display the operating status
- Alarm relay for reporting overtemperature, fan defect, cable break and sensor failure

Supply includes:

- Speed control
- NTC sensor, length 1.80 m.



To fit Model No.	Rated operating voltage V	Setting range	Packs of	Model No.
3240.500/3241.500/3243.500/ 3244.500/3245.XXX/3140.500/ 3140.510	100 - 250	+5 °C...+55 °C	1 pc(s).	3235.440

Speed control

for fan-and-filter units and air/air heat exchangers

Temperature-dependent speed control to minimise noise and save energy in part-load operation.

Technical specifications:

- For mounting on a 35 mm support rail DIN EN 50 022
- Phase cross-over with microcontroller
- Maximum fan output 300 W or 2 A

Supply includes:

- Speed control
- NTC sensor, length 1.80 m.

Note:

- Only suitable for use with single-phase AC motors and equipment
- Not suitable for EC motors

Accessories:

- Mounting plate 7526.964, see Internet



W x H x D mm	Rated operating voltage V	Setting range	Packs of	Model No.
105 x 90.5 x 60.2	100 - 230	+20 °C...+55 °C	1 pc(s).	3120.200

Climate control accessories

Control/regulation



IoT interface

The IoT interface is a central component for the intelligent networking of Rittal cooling solutions or sensors for monitoring physical ambient conditions. Equipped with a wide range of interfaces and protocols, it is used to collate and transmit data to superordinate IT systems or to systems for the local monitoring of machine statuses.

Benefits:

- Digitalisation and networking offer huge opportunities for every company. With the IoT interface, Rittal cooling solutions and sensors for monitoring physical ambient conditions are easily connected to Industry 4.0 environments without affecting the automation logic.
- Plug and run: The IoT interface is quickly and conveniently configured and commissioned via the integral web server without the need for programming.

Material:

- Plastic to UL 94-V0

Colour:

- RAL 7016

Protection category IP to IEC 60 529:

- IP 20

Supply includes:

- IoT interface
- USB cable (USB A-connector on micro-USB B-connector)
- Angle bracket for Blue e+ cooling unit

Note:

- The IoT interface is only supported by Blue e+ cooling units from firmware version 1.11.0 or above. If applicable, update the firmware using the RiDiag III software (3159.300).
- To interlink cooling units in the Blue e series, the Blue e IoT adaptor (3124.310) is additionally required.



Assembly instruction:

- The IoT interface can be secured on a 35 x 7.5 top hat rail to DIN EN 60715 using a spring-loaded metal clip, or to the rear of a Blue e+ cooling unit using the angle bracket.



Accessories:

- Blue e IoT adaptor 3124.310, see Internet

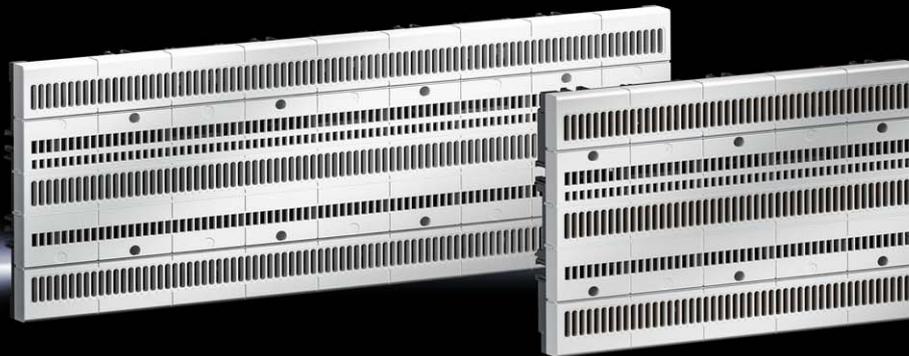
W x H x D mm	18 x 117 x 120
For	TopTherm cooling units with e-Comfort controller Blue e+ cooling units Blue e+ chillers Smart Monitoring System for NH fuse-switch disconnectors Rittal sensors
Operating temperature range	+0 °C...+70 °C
Protocols	OPC-UA/SNMPv1/SNMPv2c/SNMPv3/Modbus/TCP/TCP/IPv4/TCP/IPv6/Radius/Telnet/SSH/FTP/SFTP/HTTP/HTTPS/NTP/DHCP/DNS/SMTP/Syslog/LDAP
Interfaces	1 x Micro USB type B (device) for USB 2.0 1 x Micro-SD memory card slot for SD 2.0 1 x USB 2.0 high-speed functions (EHCI) 1 x acknowledgement button 1 x push-in spring connection terminal for NTC sensor 2 x RJ45 jack for RS 485 interface (climate control unit interface)
Network interface	Ethernet IPv4/IPv6 Ethernet to IEEE 802.3 via 10BASE-T, 100BASE-T and 1000BASE-T
Interface bus system	2 x RJ45 CAN bus
Type of electrical connection	Push-in spring connection terminal (24 V DC)
Weight kg	0,278
Packs of	1 pc(s).
Model No.	3124.300

Power distribution



- RiLine Compact
- Accessories

Board



Connection adaptors Page 105 Component adaptors Page 106 NH fuse-switch disconnectors Page 110 Motor controller/power pack Page 111

Functions:

- Shock-hazard-protected busbar board for the safe accommodation and contacting of components, thanks to simple plug-in mounting
- Pre-punched pitch units in the board allow secure, fast positioning of components
- Reduces wiring work by contacting directly onto the board
- For snap-on mounting onto 35 x 7.5/15 mm busbars or for direct attachment to the mounting plate

Material:

- Polyamide
- Polycarbonate
- E-Cu
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 20

Supply includes:

- Integral busbars

Note:

- The technical data may vary for UL applications

Standards:

- UL 508
- IEC 61 439

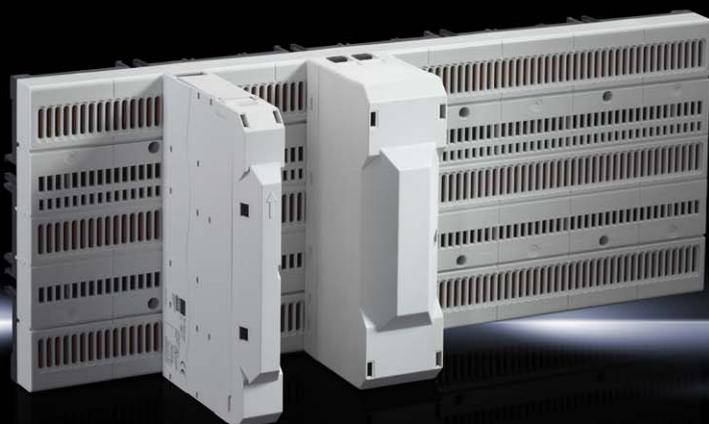
Approvals:

- UL

RiLine Compact, 3-pole

Rated max. current A	Packs of	125	125
Rated operating voltage V		690 (AC) 600 (DC)	690 (AC) 600 (DC)
Number of poles		3-pole	3-pole
Max. pitch units @ 45 mm		5	9
Width mm		225	405
Height mm		160	160
Depth mm		45.1	45.1
Model No.	1 pc(s).	9635.000	9635.010

Connection adaptor



Board Page 104 Component adaptors Page 106 NH fuse-switch disconnectors Page 110 Motor controller/power pack Page 111

Functions:

- To supply power to the board

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- The technical data may vary for UL applications

Approvals:

- UL

Rated current max. 80 – 125 A, 3-pole

Rated max. current A	Packs of	80	125
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~
Number of poles		3-pole	3-pole
Cable outlet		Top/bottom	Top/bottom
Connection type		Spring terminal	Box terminal
Connection of round conductors, fine wire without wire end ferrule mm ²		1.5 - 16	6 - 50
Connection of round conductors, fine wire with wire end ferrule mm ²		1.5 - 16	6 - 50
Connection of round conductors, multi-wire mm ²		1.5 - 16	6 - 50
Connection of round conductors, single-wire mm ²		1.5 - 10	6 - 50
Connection of round conductors		AWG 6 - 16	AWG 1 - 10
When using fine-wire round conductors 16 mm ² with wire end ferrule, we recommend the following crimping tools: Rittal 4054.004, Weidmüller PZ 16, Phoenix Contact Crimpfox 25R		■	-
Can be used as a central infeed or as a longitudinal connector for two bayed boards		-	■
Width mm		22.5	45
Height mm		160	160
Depth mm		115.5	92.5
Model No.	4 pc(s).	9635.200	9635.210

Component adaptor



Board Page 104 Connection adaptors Page 105 NH fuse-switch disconnectors Page 110 Motor controller/power pack Page 111

Functions:

- For mechanical attachment and direct contacting of electrical equipment on the board

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- Different adaptor versions are required depending on the preferred phase connection
- The technical data may vary for UL applications

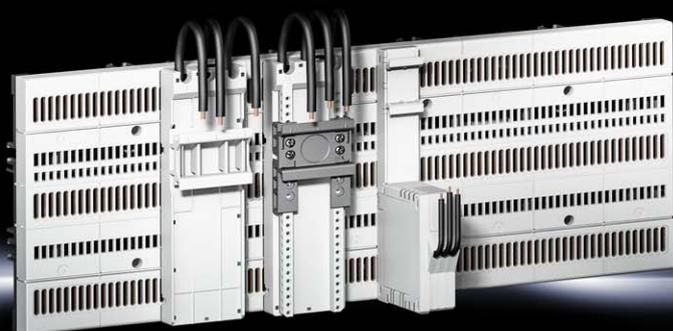
Approvals:

- UL

Rated current max. 16 – 63 A, 1-pole

Design	Packs of	L1	L2	L3	L1	L2	L3
Rated max. current A		16	16	16	63	63	63
Rated operating voltage V, ~		690 (AC), 1~					
Number of poles		1-pole	1-pole	1-pole	1-pole	1-pole	1-pole
Connection cables, design		AWG 14	AWG 14	AWG 14	AWG 8	AWG 8	AWG 8
Connection cables, length mm		100	100	100	100	100	100
Support rails quantity/height mm		1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Support rail version		static	static	static	static	static	static
Width mm		18	18	18	18	18	18
Height mm		160	160	160	160	160	160
Depth mm		35	35	35	35	35	35
Model No.	6 pc(s).	9635.371	9635.372	9635.373	9635.381	9635.382	9635.383

Component adaptor



Board Page 104 Connection adaptors Page 105 NH fuse-switch disconnectors Page 110 Motor controller/power pack Page 111

Functions:

- For mechanical attachment and direct contacting of electrical equipment on the board

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- The technical data may vary for UL applications

Approvals:

- UL

Rated current max. 16 – 45 A, 3-pole

Design		With integral fuse holder	Basic	Basic	Comfort	Comfort	Comfort	Comfort
Fuse type (class)		CC	-	-	-	-	-	-
Rated max. current A		16	16	32	16	25	32	45
Rated operating voltage V, ~		690 (AC), 3~600 (DC), 3~	690 (AC), 3~600 (DC), 3~	690 (AC), 3~600 (DC), 3~	690 (AC), 3~600 (DC), 3~	690 (AC), 3~600 (DC), 3~	690 (AC), 3~600 (DC), 3~	690 (AC), 3~600 (DC), 3~
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	3-pole
Fuse size mm		10 x 38	-	-	-	-	-	-
Connection cables, design		AWG 14	AWG 14	AWG 10	AWG 14	AWG 12	AWG 10	AWG 8
Connection cables, length mm		125	120	100	160	100	160	100
Support rails quantity/height mm		1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Support rail version		static	static	static	adjustable	adjustable	adjustable	adjustable
Width mm		22.5	45	45	45	45	45	45
Height mm		160	160	160	160	160	160	160
Depth mm		80	34.5	34.5	34.5	34.5	34.5	34.5
Model No.		9635.300	9635.310	9635.320	9635.330	9635.340	9635.350	9635.360
	Packs of	1 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).

Accessories

Support rail	10 pc(s).	-	-	-	9635.600	9635.600	9635.600	9635.600
Positioner		-	-	-	see page	see page	see page	see page
Extension module	8 pc(s).	-	-	-	9635.630	9635.630	9635.630	9635.630
Extension kit	4 pc(s).	-	-	-	9635.640	9635.640	9635.640	9635.640

Component support



Board Page 104 **Connection adaptors** Page 105 **NH fuse-switch disconnectors** Page 110 **Motor controller/power pack** Page 111

Functions:

- For extending the mounting options on the board when using wide equipment

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Approvals:

- UL

without contact system

Support rails quantity/height mm	Packs of	1 / 10
Support rail version		static
Width mm		18
Height mm		160
Depth mm		34.5
Model No.	6 pc(s).	9635.390

Circuit-breaker component adaptors



Board Page 104 Connection adaptors Page 105 NH fuse-switch disconnectors Page 110 Motor controller/power pack Page 111

Functions:

- For mechanical attachment and direct contacting of circuit-breakers on the board
- Circuit-breaker is fitted using variably adjustable fixing points (M4)

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- Consider the mounting distance of the circuit-breaker when selecting the circuit-breaker component adaptor
- Depending on the air circuit-breaker used, there may be a reduction in output
- The technical data may vary for UL applications

Approvals:

- UL

Rated current max. 160 A, 3-pole

Rated max. current A	Packs of	160	160
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~
Number of poles		3-pole	3-pole
Cable outlet		Top/bottom	Top/bottom
For switchgear make (model)		ABB (XT1) Allen Bradley (140G-G) Siemens (3VA10, 3VA11, 3VA51)	ABB (XT2) Allen Bradley (140G-H) Eaton (NZM1) Schneider Electric (NSXm)
Mounting distance mm		25	30
Width mm		90	90
Height mm		160	160
Depth mm		45	45
Model No.	1 pc(s).	9635.100	9635.110

NH fuse-switch disconnectors



Board Page 104 Connection adaptors Page 105 Component adaptors Page 106 Motor controller/power pack Page 111

Functions:

- To protect connected equipment
- Integral test holes provide measurement access to the contact parts of the fuse inserts
- For cable outlet at the top, the NH fuse-switch disconnector must be mounted on the board rotated through 180°

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Colour:

- RAL 7035

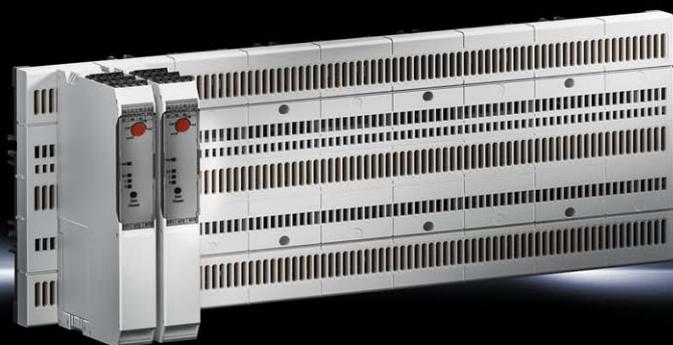
Basis of test:

- IEC/DIN EN 60 947-3

Size 000

Size	Packs of	000
Rated operating current max. A		125
Rated operating voltage V, ~		690 (AC), 3- 440 (DC), 3-
Number of poles		3-pole
Cable outlet		Top/bottom
Connection type		Box terminal
Connection of round conductors mm ²		2.5 - 50
Clamping area for laminated copper bars (W x H) mm		10 x 10
Width mm		49.5
Height mm		174.5
Depth mm		96
Model No.	1 pc(s).	9635.700

Motor controller



Board Page 104 Connection adaptors Page 105 Component adaptors Page 106 NH fuse switch disconnectors Page 110

Functions:

- For controlling motors as direct or reversing starters with integral over-ride protection
- The hybrid technology used facilitates frequent switching by semi-conductors with zero wear
- During operation, mechanical contacts ensure a low heat loss
- Space-saving configuration thanks to the minimal build width

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Note:

- The technical data may vary for UL applications

Rated current max. 0.6 – 9 A, 3-pole

Rated max. current A	Packs of	0.6	2.4	3	9	9
Rated operating voltage V, ~, Hz		500 (AC), 3~, 50/60				
Heat loss max. W		2.8	5.5	5.5	12	12
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole
Fuse size mm		10 x 38				
Connection of round conductors mm ²		0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	0.14 - 2.5
Safety integrity level (SIL) to IEC 61 508 - safe switch-off		-	-	3	-	3
Safety integrity level (SIL) to IEC 61 508 - motor protection		-	-	2	-	2
Adjustable current monitoring A		0.075 - 0.6	0.18 - 2.4	0.18 - 3	1.5 - 9	1.5 - 9
Width mm		22.5	22.5	22.5	22.5	22.5
Height mm		160	160	160	160	160
Depth mm		114	114	114	114	114
Approvals		UL	UL	-	UL	-
Model No.	1 pc(s).	9635.400	9635.410	9635.415	9635.420	9635.425

Power pack



Board Page 104 Connection adaptors Page 105 Component adaptors Page 106 NH fuse switch disconnectors Page 110

Functions:

- 24 V DC control voltage supply
- Integral push-in terminal for tool-free connection of the output
- Supports parallel switching for increased output or for redundancy
- Fast commissioning, thanks to tool-free installation and automatic contacting of the power pack

Material:

- Plastic

Colour:

- RAL 7035

Protection category IP to

IEC 60 529:

- IP 20

Protection class:

- II (in the closed enclosure)

Standards:

- EN 61 000-6-2
- IEC 61 010-1 (SELV)

Directives:

- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU

Approvals:

- UL

Rated operating voltage V, ~, Hz	Packs of	400, 2~, 50/60 400, 3~, 50/60 500, 2~, 50/60 500, 3~, 50/60
Output voltage V (DC)		24
Output current (max.) A		5
Connection of round conductors mm ²		0.2 - 4
Width mm		36
Height mm		160
Depth mm		159
Operating temperature range		-25 °C...+70 °C
Storage temperature range		-40 °C...+85 °C
Model No.	1 pc(s).	9635.800

RiLine Compact accessories

for component adaptors

Support rail

for Comfort component adaptor

For attaching equipment and reverser combinations.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 9005

Width mm	Height mm	Packs of	Model No.
45	56	10 pc(s).	9635.600



Positioner

for Comfort component adaptor

For attaching equipment and reverser combinations.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 9005

Width mm	Height mm	For switchgear make (model)	Packs of	Model No.
45	65	Siemens (S00, S0)	10 pc(s).	9635.610
45	47.5	Eaton (PKZ/PKE size 0)	10 pc(s).	9635.620



Extension module

for Comfort component adaptor

For attaching direct starters of varying lengths.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Width mm	Height mm	Packs of	Model No.
45	40	8 pc(s).	9635.630



Extension kit

for Comfort component adaptor

For attaching reverser combinations with 90 mm width.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:

- RAL 7035

Supply includes:

- 1 set consisting of 1 expansion module, 2 extension modules, 3 connection pins
- 1 set \triangleq 1 pc(s).

Width mm	Height mm	Packs of	Model No.
90	80	4 pc(s).	9635.640



Accessories

for power distribution



Conductor connection clamps

Push-in

Applications:

- For use as busbar pick-off of L, N or PE conductors in switchgear and controlgear, and as a conductor connection clamp in meter boxes
- For mounting on E-Cu or CUPONAL busbars

Benefits:

- Maintenance-free
- Time-saving top-mounting
- Terminal box with integral label panels
- Universal conductor connection

Functions:

- Fully insulated terminal for tool-free conductor connection
- Conductor is released by the integral release pin

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

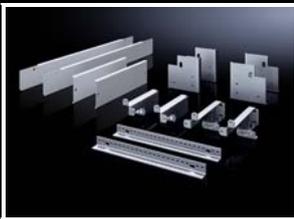
Colour:

- RAL 7042

Basis of test:

- IEC 60 999-1
- IEC 60 947-7-1/-2

For bar thickness mm	Connection of round conductors, single-wire mm ²	Connection of round conductors, multi-wire mm ²	Connection of round conductors, fine wire without wire end ferrule mm ²	Connection of round conductors, fine wire with wire end ferrule mm ²	Packs of	Model No.
5	0.5 - 6	0.5 - 4	0.5 - 4	0.5 - 4	10 pc(s).	3450.505
5	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 16	10 pc(s).	3451.505
10	0.5 - 6	0.5 - 4	0.5 - 4	0.5 - 4	10 pc(s).	3455.505
10	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 16	10 pc(s).	3456.505



ISV installation kit

for AX

For mounting ISV installation modules in the enclosure.

Material:

- Assembly kit: sheet steel, zinc-plated
- Support rail: sheet steel, zinc-plated
- Contact hazard protection: sheet steel, spray-finished

Supply includes:

- Assembly kit
- Support rails
- Contact hazard protection
- Assembly parts



Accessories:

- Mounting angles ISV, see Internet

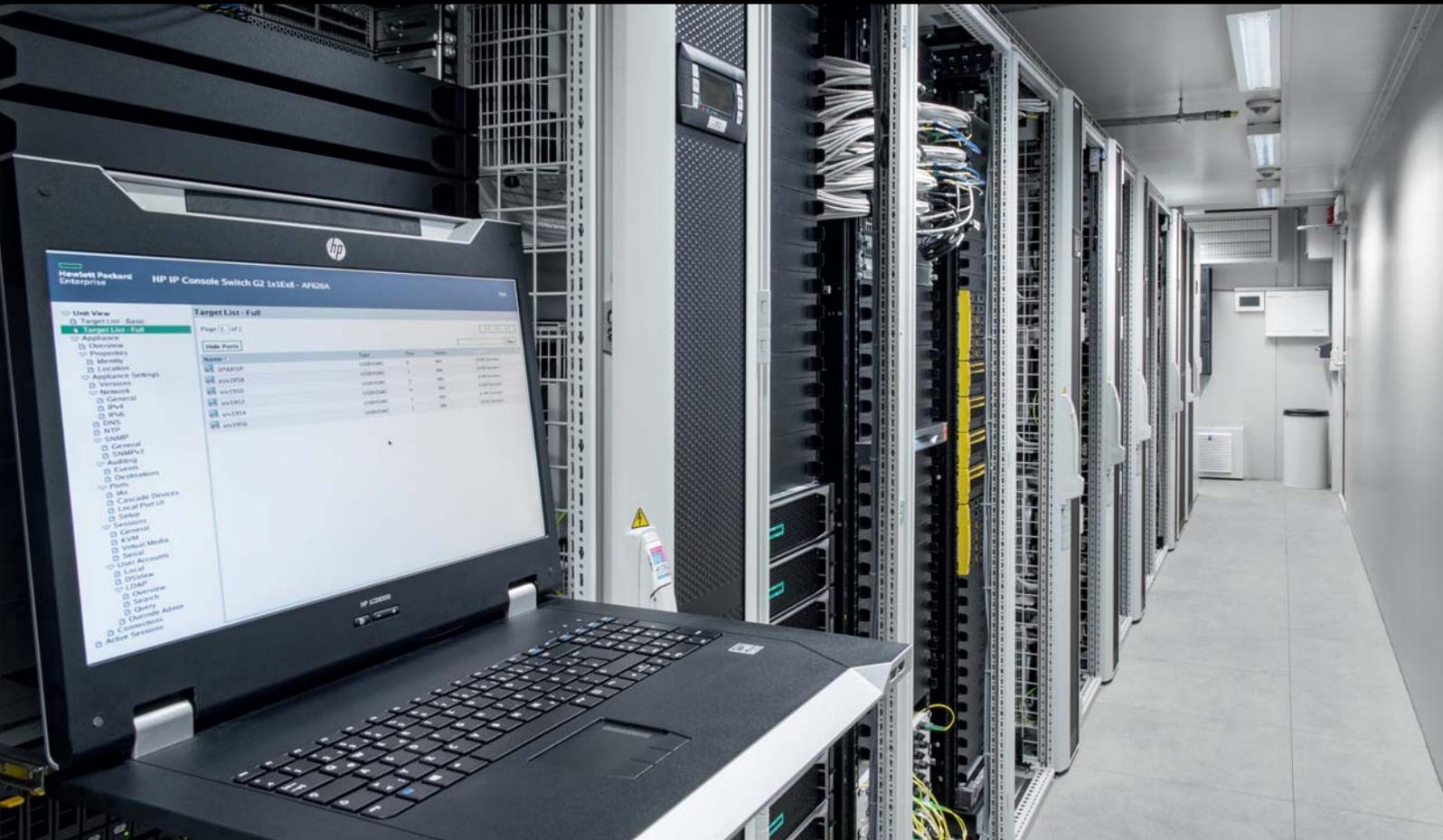
For enclosure width mm	For enclosure height mm	For enclosure depth mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	To fit Model No.	Packs of	Model No.
380	600	210	1	3	1008.X00/ 1038.X00	1 pc(s).	9666.801
500	700	250	1	4	1057.X00	1 pc(s).	9666.811
600	760	210	2	4	1012.X00/ 1076.X00	1 pc(s).	9666.821
600	1000	250	2	6	1090.X00	1 pc(s).	9666.831
600	1200	300	2	7	1260.X00	1 pc(s).	9666.841
1000	1200	300	3	7	1019.X00/ 1213.X00/ 1305.X00	1 pc(s).	9666.851



One for all. Especially for you. “Rittal – The system.”

Whether you need hygiene-optimised enclosures, energy-efficient Blue e+ units or edge data centres, Rittal offers a customised portfolio of products tailored to the food industry and its ever more stringent requirements on hygiene, efficiency and digitalisation.

IT Infrastructure



- Edge data centres
- Configuration examples

Rittal edge solutions

Industry 4.0, automated financial transactions, mobile streaming and self-driving cars all demand super-fast processing, top-level security, and uninterrupted availability. Rittal edge solutions deliver just that. They allow you to securely and precisely save, process and share large quantities of data in real time, wherever it is needed. Comprehensive planning, flexible project management and reliable commissioning allow us to implement your customised edge solutions quickly, anywhere in the world.

Immediate response

The sensors in the IoT devices deliver data that needs to be collected, processed, evaluated and saved – quickly and as close to the source as possible. This physical proximity is key to low latency. If the data has to travel long distances to and from processing centers in the cloud, it eats time. Too much time.



Scalable standards

To keep pace with a fast-moving market and meet demands for efficiency, businesses need standardised IT architecture solutions. These are scalable systems that can adapt performance in line with demand. Standardisation can also incorporate existing systems, so there's no need to start from scratch.



Reliable future

Cyber-attacks, hacks, and security breaches feature almost daily in the headlines. Unauthorised access to confidential data can have political, economic, and even health implications. Protecting sensitive data and systems poses two major challenges: Ensuring digital data security, and protecting physical access to the data centre and IT racks. Both must be guaranteed at all times.



Uninterrupted availability

No one likes to be interrupted, and it's no different with data: An uninterrupted data connection between the solution and the data supplier is the most important prerequisite of data availability. In contrast to data security, availability depends on technical functionality. Even minor errors can have wide-reaching implications, especially in devices that work in single-digit milliseconds.



Maximum efficiency in a minimal space



Edge data centres with innovative cooling technology

Industrial operations, building management, the logistics chain and logistics centres have created an ever-expanding market for edge data centres. The emphasis here is on efficiency and reliability. Rittal's innovative cooling units in the Blue e+ series with integral heatpipe herald a new dimension in efficiency, particularly for edge data centres at the lower end of the output range.

Application example:

This edge solution is perfect for production and IoT sensor data capture, and for managing all types of data.

Your benefits at a glance:

- Interfaces to all sensors, machines and devices
- Low latency in critical applications
- Capture and analysis of unstructured data to avoid unnecessary transmission to the cloud
- Interface to other edge data centres and to overlaid services in the cloud

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server enclosure TS IT, IP 55	1	5504.131
IT power	PDU metered 16 A/1~	2	7955.201
IT cooling	Roof-mounted cooling unit Blue e+ for IT 1.7 kW	1	3312.800
IT monitoring	Temperature/humidity sensor	1	7030.111
	Access sensor	2	7030.120
IT security	Smoke detector	1	7030.400
IT accessories	IT LED system light, 600 lm	1	7859.000
	CAT 6, network cable organizer	1	7044.110

All the variants shown are sample configurations. Individually adaptable.

Scalable in multiple dimensions



Edge data centre in the medium output range

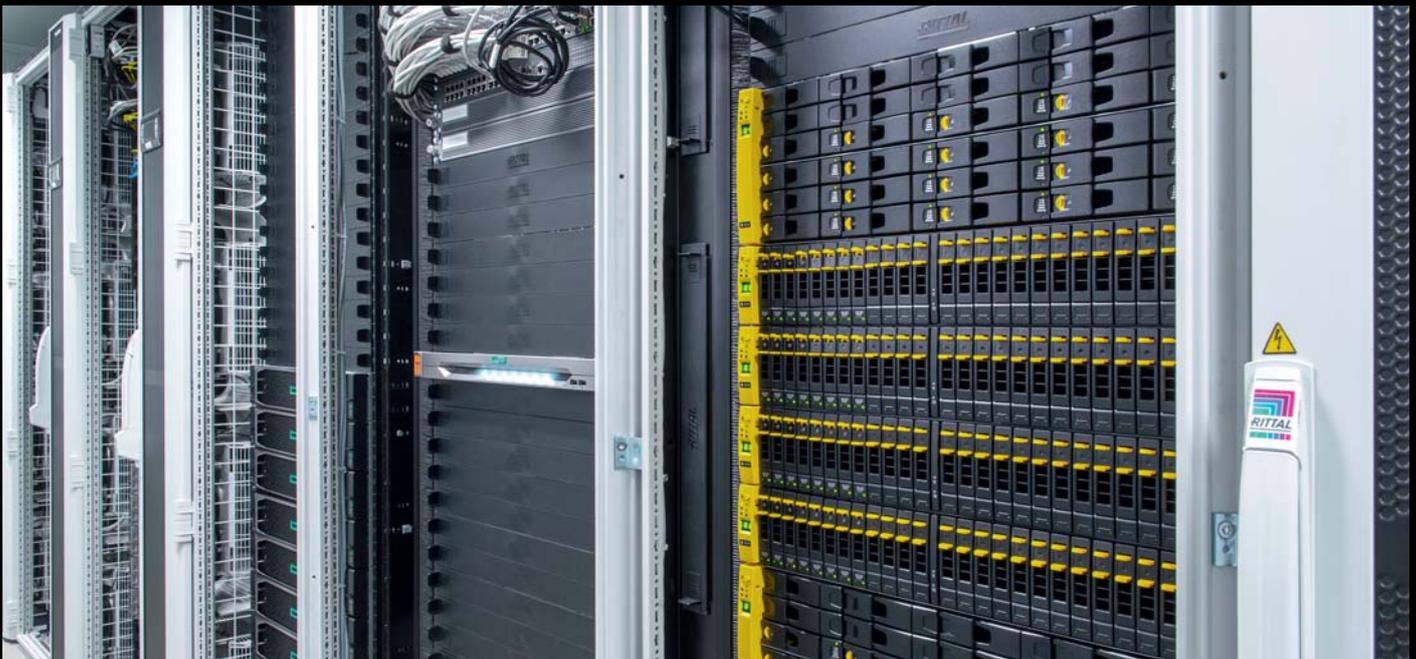
Edge data centres are always defined by the application. CPU-intensive applications may require multiple enclosures with a higher cooling output. The modular system from Rittal safeguards your growth plan, as it is scalable in terms of size, redundancy and maximum load.

Application example:

Smart cities, interconnected vehicles and streaming services are reliant on the continuous availability of safety-relevant data. This calls for data centres with ultimate levels of fail-safeness. Edge data centres are the answer, being exceptionally energy-efficient with a small footprint.

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server enclosure TS IT, IP 55	4	5510.131
IT power	PDU metered 16 A/3~	8	7955.232
IT cooling	LCP rack DX, 12 kW	3	3311.420
	Condenser unit for LCP DX	3	3311.360
IT monitoring	CMC III monitoring system	1	7030.000
	Automatic door opening (ADO)	4	7030.500
IT security	Fire alarm and extinguisher system DET-AC	1	7338.121
	Add-on unit DET-AC	3	7338.321
IT accessories	IT LED system light, 600 lm	4	7859.000

All the variants shown are sample configurations. Individually adaptable.



Reliable, redundant and fail-safe

Edge data centres in the small output category

Edge data centres can handle a wide variety of tasks, not just data capture and condition monitoring. With critical processes, such as controlling traffic flows or monitoring production processes, it is particularly vital for an edge data centre to reflect the availability of the application. Scalable redundancy is the key here.

Application example:

IT infrastructures comprising just one or two IT racks, for example, must still offer the same features as a large data centre: From reliable power supply, to cooling, through to monitoring. Smaller edge data centres are ideal for distributed installation across multiple locations and for processing data in real time (for example, traffic monitoring and control).



IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server enclosure TS IT, IP 55	2	5509.790
IT power	PDU metered 32 A/1~	4	7955.211
IT cooling	LCU DX, single, 6.5 kW	2	3311.492
IT monitoring	CMC III monitoring system	1	7030.000
IT security	Fire alarm and extinguisher system DET-AC	1	7338.121
	Add-on unit DET-AC	1	7338.321
IT accessories	IT LED system light, 600 lm	2	7859.000
	CAT 6, network cable organizer	4	7044.110

All the variants shown are sample configurations. Individually adaptable.

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- Power Distribution
- Climate Control
- IT Infrastructure
- Software & Services

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