Rittal – The System.

Faster – better – everywhere.

VX SE free-standing enclosure system



Rittal and EPLAN

Your benefits at a glance







1. Engineering

- Error-free, flexible processes throughout the entire value chain with the digital twin
- High-quality 3D data in the EPLAN Data Portal
- 3D-assisted design with EPLAN Pro Panel

2. Sourcing

- Error-free product configuration with the Rittal Configuration System
- Interfaces with EPLAN engineering tools
- Simple ordering and fast delivery of Rittal standard products

More productive – with digitalization and prototyping

Faster – with online configurators

More reliable – with our smart, global service

Better – with Industry 4.0 and automation



3. Manufacturing

- Rittal's fully automated production processes help guarantee precision machining, population and wire assembly
- Straightforward wiring with EPLAN Smart Wiring
- All work stations can be linked together with the digital twin

4. Operations

- Minimized downtimes and efficient production with the Rittal Global Service
- Predictive maintenance via IoT linking of Rittal cooling units
- The cloud-based solution EPLAN eVIEW allows a cross-locational overview of all project data

Compact enclosure too small?

The VX SE free-standing enclosure system offers an effective alternative for situations where a compact enclosure is not big enough.





CLIMATE CONTROL

ENCLOSURES

POWER DISTRIBUTION

FRIEDHELM LOH GROUP

Baying enclosure system too large?

The VX SE free-standing enclosure system is an effective alternative for situations where VX25 or TS 8 baying is not required.







VX SE – the solution

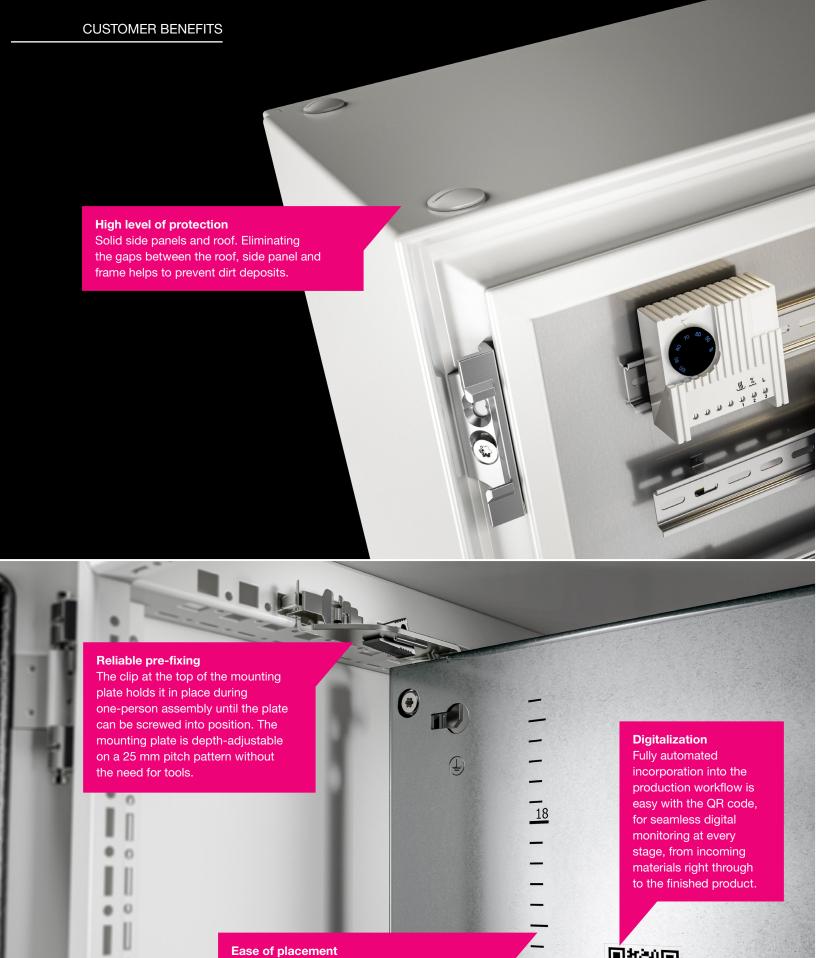
Reap the benefits of the VX SE for your project:

- Minimal ordering and assembly work, thanks to the solid side panels and roof
- Body produced from a single piece for maximum stability and torsional rigidity
- High protection category up to IP 66/NEMA 4 or 4X
- The smart enclosure design from a single piece to help ensure good EMC properties
- Wide range of dimensions up to a width of 1800 mm, may replace up to three bayed enclosures
- Depths of 300 mm are ideally suited for applications in confined spaces, such as building services

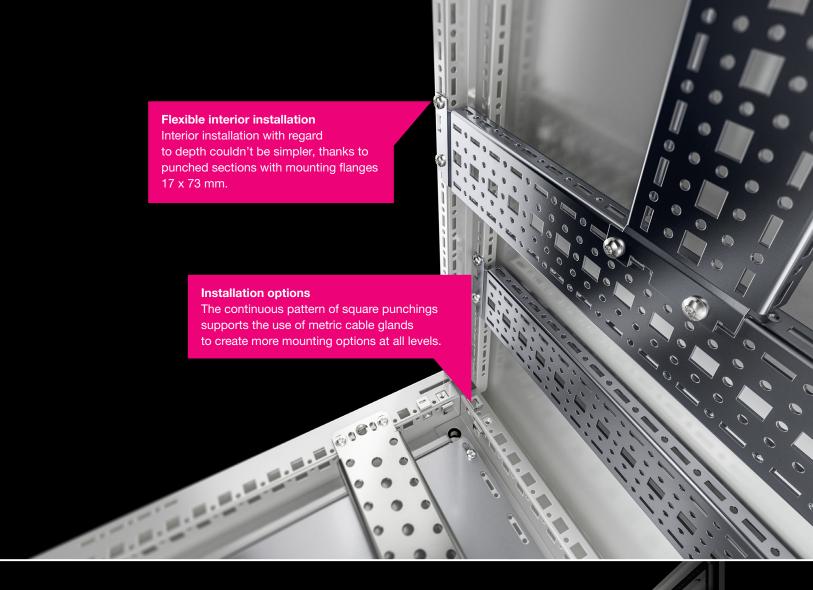
IT INFRASTRUCTURE

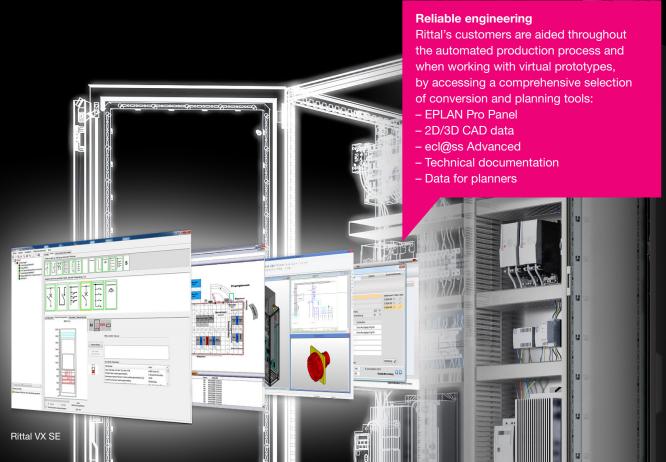
SOFTWARE & SERVICES





The printed pitch pattern allows components to be easily and quickly positioned on the mounting plate – no measuring required.





Reduce ordering and assembly work

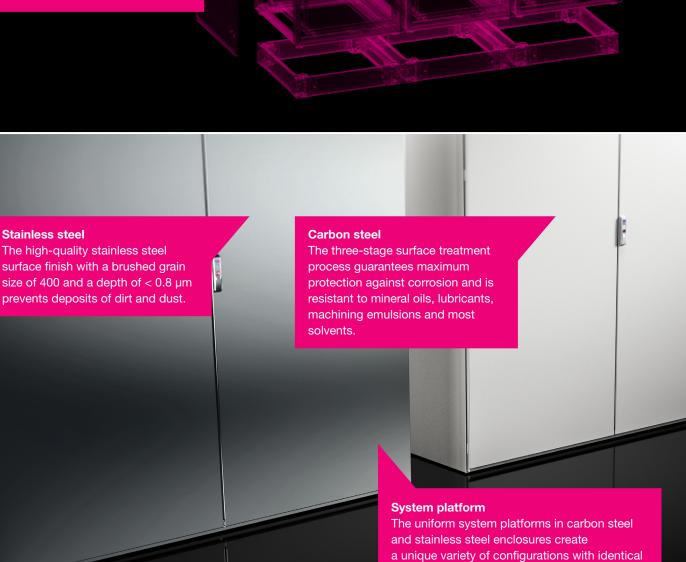
No need to order side panels or baying accessories separately. What is more, mounting plate infills are no longer required, due to the seamless mounting plate.

Flexibility and potential savings

With enclosures available in widths of up to 1800 mm, one standalone enclosure can replace bayed suites of up to three enclosures. Only one wide base/plinth is needed. Sealing is likewise unnecessary.

Stainless steel

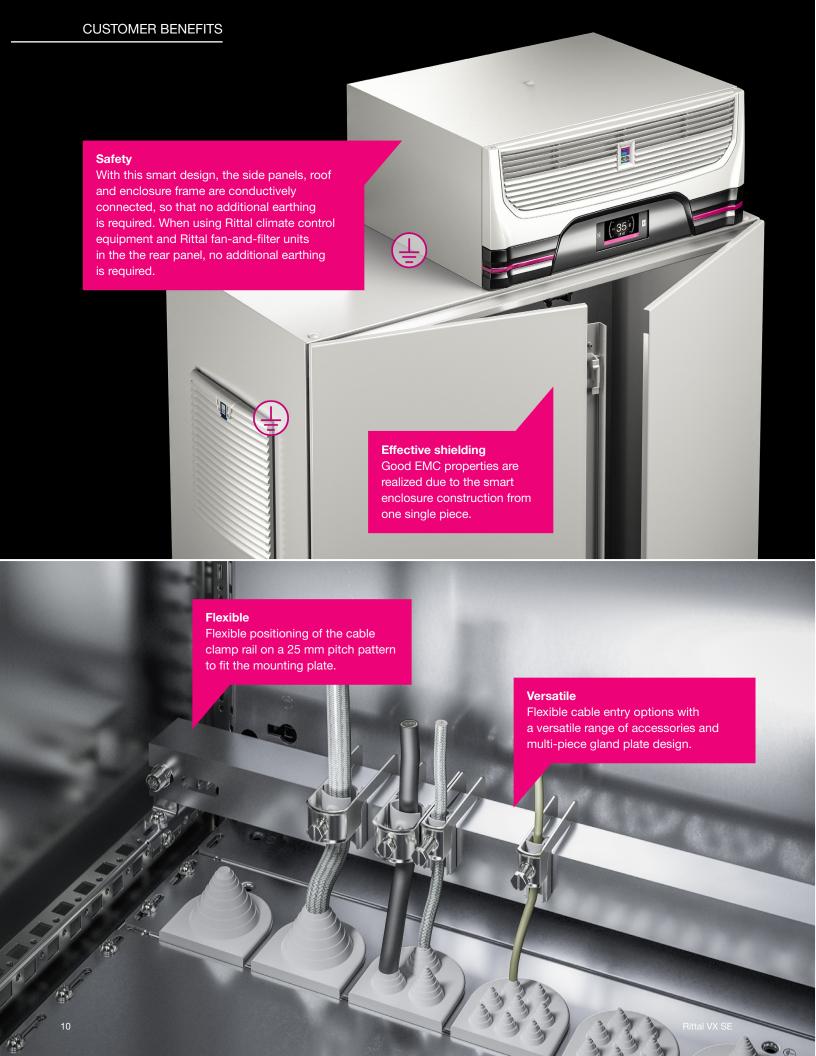
The high-quality stainless steel

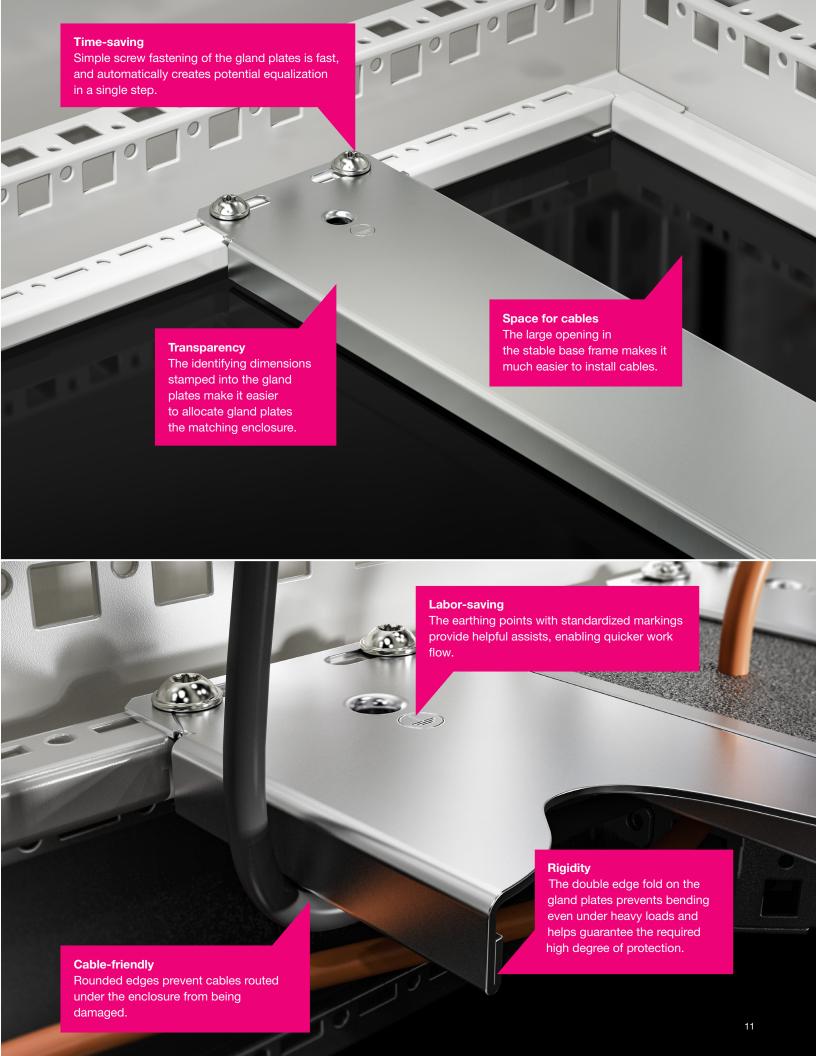


engineering.









VX SE free-standing enclosure system, carbon steel



Basic enclosure, carbon steel

Material and surface finish:

- Enclosure: Carbon steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Carbon steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Carbon steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Carbon steel, 3 mm, zinc-plated, passivated
- Gland plates: Carbon steel, 1.5 mm, zinc-plated, passivated

Color:

- RAL 7035

Protection category IP to IEC 60 529:

IP 55

Protection category to UL 50E:

Type 12 (NEMA 12), 3R

Supply includes:

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

Approvals: UL, cUL

IP 66/NEMA 4, carbon steel

Material and surface finish:

- Enclosure: Carbon steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Carbon steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
 Rear panel: Carbon steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Carbon steel, 3 mm, zinc-plated, passivated
- Base: Carbon steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint

Color:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 66

Protection category to UL 50E:

- Type 4 (NEMA 4), 3R

Supply includes:

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

Approvals: UL, cUL

Height mm	Width mm	Depth mm	Doors	Rear panel	Model No.	Model No.
1600	600	400	1	one-piece	-	-
1800	600	300	1	one-piece	5820.600	-
1800	600	400	1	one-piece	5830.600	5830.680*
1800	600	500	1	one-piece	-	-
2000	600	300	1	one-piece	5821.600	-
1800	800	300	1	one-piece	5822.600	-
1800	800	400	1	one-piece	5831.600	5831.680*
1800	800	500	1	one-piece	-	-
2000	800	300	1	one-piece	5823.600	-
2000	800	400	1	one-piece	5832.600	-
2000	800	500	1	one-piece	5833.600	-
2000	800	600	1	one-piece	5834.600	5834.680**
1800	1000	400	2	one-piece	5840.600	-
1800	1200	300	2	one-piece	5824.600	-
1800	1200	400	2	one-piece	5841.600	-
2000	1200	300	2	one-piece	5825.600	-
2000	1200	400	2	one-piece	5843.600	-
2000	1200	500	2	one-piece	5844.600	-
2000	1200	600	2	one-piece	5845.600	-
1800	1600	400	2	two-piece	5842.600	-
2000	1800	500	2	two-piece	5846.600	-

VX SE free-standing enclosure system, stainless steel



Basic enclosure, stainless steel steel

Material and surface finish:

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: Carbon 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:

Protection category to UL 50E:

Type 12 (NEMA 12), 3R

Supply includes:

- Enclosure, solid top and sides
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Mounting plate
- Gland plates
- Rear panel, detachable
- Lock: 3 mm double-bit

Approvals: UL, cUL

- 2 punched rails 18 x 39 mm

- 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: Carbon steel, 3 mm, zinc-plated, passivated
- Base: Stainless steel 1.4301 (AISI 304), 1.5 mm, uncoated

Protection category IP to IEC 60 529:

IP 66

Protection category to UL 50E:

Type 4 (NEMA 4X), 3R

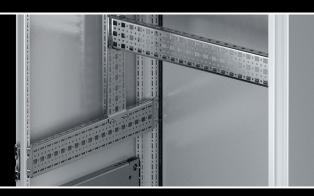
Supply includes:

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

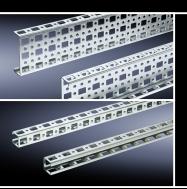
Approvals: UL, cUL

Height mm	Width mm	Depth mm	Doors	Rear panel	Model No.	Model No.
1600	600	400	1	one-piece	5850.600	5850.680*
1800	600	300	1	one-piece	-	-
1800	600	400	1	one-piece	-	-
1800	600	500	1	one-piece	5851.600	-
2000	600	300	1	one-piece	-	-
1800	800	300	1	one-piece	-	-
1800	800	400	1	one-piece	-	-
1800	800	500	1	one-piece	5852.600	5852.680*
2000	800	300	1	one-piece	-	-
2000	800	400	1	one-piece	-	-
2000	800	500	1	one-piece	-	-
2000	800	600	1	one-piece	5853.600	5853.680**
1800	1000	400	1	one-piece	5854.600	-
1800	1200	300	2	one-piece	-	-
1800	1200	400	2	one-piece	-	-
2000	1200	300	2	one-piece	-	-
2000	1200	400	2	one-piece	-	-
2000	1200	500	2	one-piece	5855.600	-
2000	1200	600	2	one-piece	-	-
1800	1600	400	2	two-piece	-	-
2000	1800	500	2	two-piece	_	_

System accessories



Punched sections with mounting flanges, 23 x 73 mm Flexible interior installation on a 25 mm pitch pattern. With the system punchings, cage nuts up to M8 can be used across three levels. This allows you to securely fasten your own components with metric screws.



Punched sections without mounting flanges 23 x 73 mm and mounting rails 23 x 23 mm
For fixing at variable intervals and individually to the inner mounting surface of the enclosure frame. When mounted, the punched sections and rails sit flush to the enclosure frame. Due to the additional mounting bracket, they can be used with a preinstalled mounting plate and can also be cut to any required length.



Partial mounting plate The partial mounting plates create additional mounting surfaces at all places in the enclosure. Suitable for use as a component shelf or hinged.



Punched sections with mounting flanges, 17 x 73 mm Ideal for straightforward configuration of the enclosure system or for cable routing from the door to the mounting plate. May be fitted directly to the profile.



Threaded block The threaded block enables simple metric screw-fastening. It may be used on the enclosure section as well as on punched sections and rails with square 12.5 x 11 mm punchings.



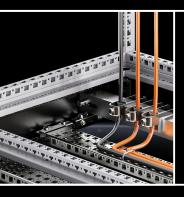
LED system light Connection is just as straightforward as assembly. The rotating connectors allow user-friendly connection, even in tight spaces. The wide ranging power supply unit means that the light can be used anywhere in the world.



The ideal solution for configuration with 482.6 mm (19") components in the vertically hinged version, for full or partial installation. Swing frames may be positioned anywhere on the 25 mm pitch pattern.



System accessories



Cable clamping

Various cable clamping options are available and can be used identically both inside the enclosure and in the base/plinth. Relocating cable clamping into the base/plinth area frees up more mounting space inside the enclosure, rather than being lost to allow for bending radii.



Cable glands

Cable glands made from polyamide or brass are ideal for maintaining the IP protection category in VX SE IP 66/NEMA 4 and 4X enclosures.





Cable duct

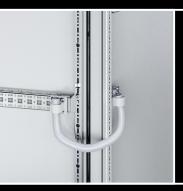
Cable ducts are ideal for managing large volumes of cables inside the enclosure. Components are simply screw-fastened. The screw heads may be securely covered with an isolator cap for insulation purposes. Cable ducts for vertical extrusions may be fitted directly onto the enclosure section, to save space on the mounting plate.





Gland plates

The modular base assembly allows completely flexible cable entry into the VX SE, matching your individual requirements. Essential cable clamping takes place in the base/plinth area, directly above the insertion point, or on the mounting plate.



Cable conduit and cable conduit

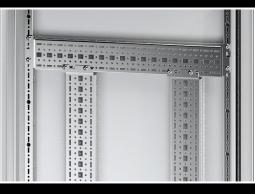
Allows crush-proof cable routing to moving parts such as doors or swing frames with minimal assembly work



Sealing frame, modular For universal use on all surfaces and walls, for inserting pre-assembled cables with connectors. Can also be mounted onto 24-pole or 16-pole connector cut-outs.



System accessories



Punched sections with mounting flanges, 17 x 73 mm

The punched section with mounting flange, 17 x 73 mm, allows completely flexible installation on the tubular door frame, no machining required.



Wiring plan lecternDuring maintenance work,
the wiring plan lectern folds out easily to hold circuit diagrams and documents. The integral punchings provide temporary accommodation for tools.





Spacer bolts allow a mounting evel to be quickly and easily created at the correct distance, onto which a top hat rail or a contact hazard protection cover for built-in components can be easily installed in the door.



Tubular door frame

The all-round T-head punchings allow simple, fast attachment of cables with standard commercially available cable ties.



Door stay for escape routes

The door stay for escape routes guarantees convenience and safety. The enclosure door is securely locked into position for assembly work. In dangerous situations, the stay is released automatically under pressure, and by using 180° hinges, escape routes can be kept clear in both directions.



Climate control

When using Rittal climate control devices and Rittal fan-and-filter units on the rear panel, no additional earthing is required.
With this smart design, the side panels, roof and enclosure frame are conductively connected, so that no additional earthing is required.



Ride-up roller

Even the heaviest populated door is easily opened and closed with the ride-up roller.



Comfort handle

For retro-fitting lock systems such as profile half-cylinders or lock inserts. As the handle does not take up any swing space, due to its folding action, the door surface area available for installed equipment is maximized.



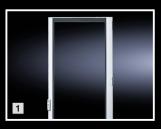
Base/plinth















Base/plinth corner piece with base/plinth trim panel, front and rear, 100 mm For enclosure width mm Model No. 600 8640.002 800 8640.003 1000 8640.005 1200 8640.007 1600 8640.008 1800 8640.009 2 Base/plinth trim panels, side, 100 mm For enclosure depth mm Model No. 300 8640.030 400 8640.031 500 8640.032 8640.033 Base/plinth corner piece with base/plinth trim panel, front and rear, 200 mm For enclosure width mm Model No. 600 8640.022 800 8640.023 1000 8640.024 1200 8640.025 1600 8640.026 1800 8640.027 4 Base/plinth trim panels, side, 200 mm For enclosure depth mm Model No.

8640.040

8640.041

8640.042 8640.043

Doors/locks

300

400

500

1 Glazed door		
For enclosure width x enclosure height mm	Model No.	
600 x 1800	8610.685	
600 x 2000	8610.605	
800 x 1800	8610.885	
800 x 2000	8610.805	
2 Comfort handle		
For	Model No.	
Lock inserts, RAL 7035	8611.020	
Lock inserts, matt, chrome-plated	8611.330	
Lock inserts and padlock, RAL 7035	8611.290	
Profile half-cylinders, RAL 7035	8611.070	
Profile half-cylinders, matt, chrome-plated	8611.340	
3 180° hinges		
Color	Model No.	
RAL 7035	8800.190	
Matt, nickel-plated	8701.180	
180° hinge for doors with high dyna	mic loads	
Color	Model No.	
RAL 7035	8800.710	

Installation accessories for doors

1 Punched section with mounting fla	nge, 17 x 73 mm			
For door width mm	Model No.			
500	8612.040			
600	8612.050			
800	8612.070			
900	8612.080			
1000	8612.110			
2 Carbon steel wiring plan pocket, de	epth 90 mm			
For door width mm	Model No.			
500	4115.000			
600	4116.000			
800	4118.000			
900	4123.000			
3 Utility lectern				
For door width mm	Model No.			
600	4638.600			
800	4638.800			
4 Door stay				
For all VX SE	Model No.			
free-standing enclosures	4583.000			
5 Door stay for escape routes				
For all VX SE	Model No.			
free-standing enclosures	4583.500			
6 Ride-up roller				
For all VX SE	Model No.			
free-standing enclosures	4538.000			
7 Wiring plan lectern				
For door width mm	Model No.			
500	4120.000			
600 ¹⁾	4120.000			
8001)	4120.000			
8 Support strip				
For door width mm	Model No.			
500	4309.000			
600	4596.000			
800	4598.000			
1000	4599.000			

¹⁾ At least two lecterns are required for a width of 600 and 800 mm.









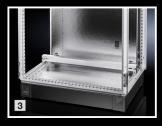














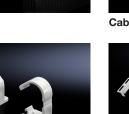
Cable management

Section for cable entry, center	
For enclosure width mm	Model No.
600	8618.800
800	8618.801
1000	8618.802
1200	8618.803
1600	8618.804
Section for cable entry, rear	
For enclosure width mm	Model No.
600	8618.810
800	8618.811
1000	8618.812
1200	8618.813
1600	8618.814
Cable clamp rail, right-angle se	ection
For enclosure width mm	Model No.
600	8619.410
800	8619.420
1000	8619.430
1200	8619.440
1600	8619.450
1800	8619.460
Sealing frame, modular ¹⁾	
E #110/05	Model No.
For all VX SE free-standing enclosures	2583.100 for 24-pole cut-out
noo startaing ortolosures	2583.080 for 16-pole cut-out

¹⁾ Also required: Seal inserts and inlays



Cable duct



Cable conduit holder



Cable conduit



Cable entry plate



Cable ties

Interior installation

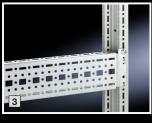
1 C-rail 30/15, for direct installation	
For enclosure width/depth mm	Model No.
600	4944.000
800	4945.000
1000	4946.000
1200	4947.000
2 Punched section with mounting fla	
for the outer mounting level for ins	
For enclosure width/depth mm	Model No.
300	8612.130
400	8612.140
500	8612.150
600	8612.160
Punched section with mounting fla for the inner mounting level for inst	
For enclosure width/depth mm	Model No.
300	8612.030
400	8612.040
500	8612.050
600	8612.060
Punched section with mounting fla for installation in the depth	nge 23 x 73 mm
For enclosure width/height/depth mm	Model No.
500	8612.550
600	8612.560
800	8612.580
1000	8612.500
1200	8612.520
5 Punched section without mounting	flange 23 x 73 mm ¹⁾
For enclosure width/height/depth mm	Model No.
400	4374.000
500	4375.000
600	4376.000
800	4344.000
1000	4382.000
1200	4378.000
1800	4379.000
2000	4380.000
6 Punched rail 23 x 23 mm ²⁾	
For enclosure width/height/depth mm	Model No.
400	4169.000
400 500	4169.000 4170.000
500	4170.000
500 600	4170.000 4171.000
500 600 800	4170.000 4171.000 4172.000
500 600 800 1000	4170.000 4171.000 4172.000 4173.000
500 600 800 1000 1200	4170.000 4171.000 4172.000 4173.000 4174.000 4393.000
500 600 800 1000	4170.000 4171.000 4172.000 4173.000 4174.000

1) Also required:

- Mounting bracket 8800.370 for mounting on the vertical section or
 Mounting bracket 4182.000 for mounting on the bottom of the enclosure section and at the top in the depth or on punched sections
- U nut M4/M5/M6/M8









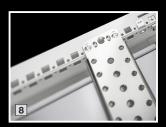




Support bracket 8800.330 for mounting on the vertical section or
 Support bracket 4183.000 for mounting on punched sections without mounting flanges or on punched rails

²⁾ Also required:









Interior installation

	Supp	7 Support strip										
For enclosure width/depth mm									N	/lodel No.		
Innei								el				
400										4309.000		
			500)						4596.000		
			600)						8800.130		
			800)						4579.000		
						Out	ter lev	r level				
			400)					4694.000			
			500)					4	4695.000		
			600)						4696.600		
			800)						4697.000		
8 8	Supp	ort ra	il 75	x 20 n	nm							
F	or er	ıclosı	ıre wid	dth/de	epth n	nm			N	/lodel No.		
						s	lotted					
			400)						4394.000		
			500)						4395.000		
			600)						4396.000		
			800)						4398.000		
						un	slotte	otted				
			600)				4396.500				
9 F	Partia	l mo	unting	g plat	te							
For installation in												
	Enclo	osure	width		En			depth Door Dimensions Model				
		mm					de) m		width	mm	No.	
400	600	800	1000	1200	400	500	600	800				
•	•	-	-	-	•	-	•	-	600	500 x 300	8614.640	
_		_	_	_	_		-	_	600	500 x 400	8614.650	
_	-	_	-	_	_	_	-	_	600	500 x 500	8614.660	
_	-	-	_	_	_	_	-	-	600	500 x 700	8614.680	
_	•	-	-	-	-	_	•	-	600	500 x 775	8614.675 ¹	
•	-	•	-	-	•	-	_	•	800	700 x 300	8614.840	
-	-	•	-	-	-	•	-	•	800	700 x 400	8614.850	
-	-	•	-	-	-	-	-	•	800	700 x 700	8614.880	
	-	-	-	-	•	-	-	-	1000	900 x 300	8614.040	
_	-	-	-	-	-	•	-	-	1000	900 x 400	8614.050	
_	•	-	-	-	-	-	•	-	1000	900 x 500	8614.060	
	-	-	-	•	•	-	-	-	-	1100 x 300	8614.240	
	_	_	_	-	-	•	_	_	_	1100 x 400	8614.250	
_	10 Threaded block											
10 7	hres								Model No			
_ 10 T	Threa		Thres	ad a					N.	Andel No		
_ 10 T	Threa		Threa							Model No. 4162.000		

LED system light

1 LED system light ¹⁾							
Lumen Im	Version	Model No.					
900	without socket	2500.200					
900	without socket, 24 V (DC)	2500.220					
1200	with motion detector	2500.300					
1200	with motion detector, 24 V (DC)	2500.320					



Socket box

1 Socket box for LED system light ¹⁾							
	Socket	UL	Model No.				
	D, earthing-pin	-	2500.710				
	GB	-	2500.711				
•••	F/B	-	2500.712				
0	CH	-	2500.713				
	US	•	2500.714				
/ \	CN	-	2500.715				





Spacers



Levelling feet



Climate control



RiLine Busbar systems

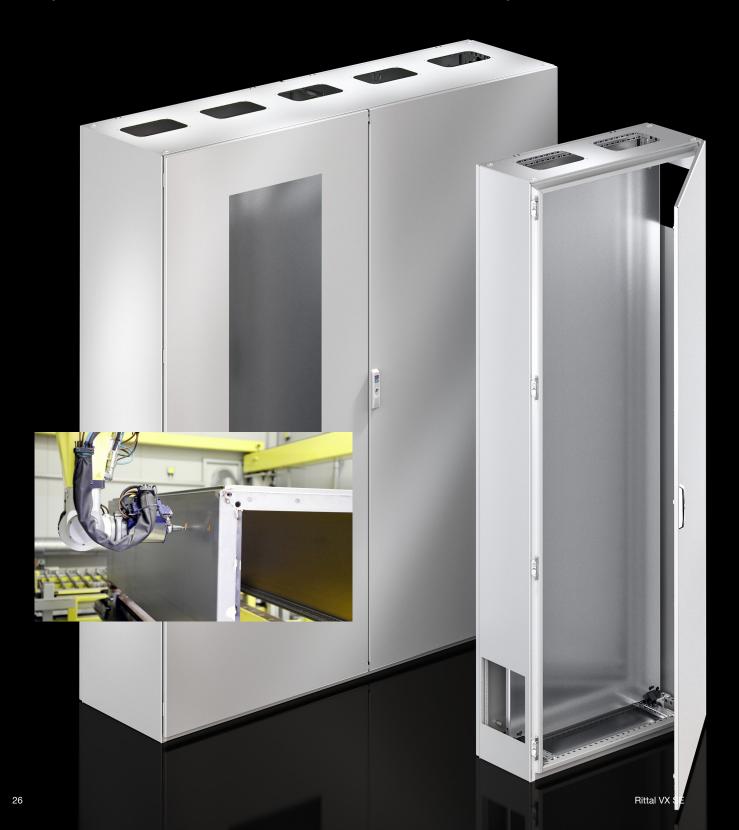
Also required:
 Connection accessories

¹⁾ Also required: - Connection accessories

Flexible manufacturing

VX SE free-standing enclosures can be machined directly at the Rittal factory.

Use your own engineering data and order the enclosures with cut-outs e.g. for cooling units, fan-and-filter units or gland plates. In this way, you can boost the efficiency of your own manufacturing process.



Versatile solutions

The VX SE free-standing enclosure system is versatile, just like our clients. For your projects in different sectors, take advantage of all the benefits of the VX SE such as high protection categories, a wide range of sizes from 300 mm depth to 1800 mm width, different material options, simple and complete engineering and a comprehensive range of accessories.



Machine and plant engineering

With its high level of torsional rigidity, the VX SE is particularly well-suited to cope with dynamic loads and stresses when used with mobile lifting and operating equipment in a production plant or warehouse.



Pharmaceuticals

VX SE, stainless steel – Ideal for use in the pharmaceutical industry, because there are no gaps between the sides, roof and frame, the build-up of dirt deposits is prevented. Smooth surfaces allow easy cleaning.



Food and beverage industry

To meet the exacting standards of the hygiene sector. Smooth stainless steel material (brushed, grain size 400) prevents viruses and bacteria from accumulating in surface recesses. The high protection category of up to IP 66/NEMA 4X allows cleaning with high pressure water jets.



Building services (heating, climate control, ventilation)

With depths of 300 mm, the VX SE is the tailor-made solution where space is limited. Accessories such as the 180° hinge and the door stay make it easy to keep escape routes clear.

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